Space Weather Highlights
13 March - 19 March 2023

SWPC PRF 2481
20 March 2023

Solar activity reached moderate levels on 17 Mar due to an M1/Sn flare (R1 - Minor) at 17/1507 UTC from Region 3247 (S24, L=162, class/area=Cao/100 on 08 Mar). The other 17 numbered active regions on the visible disk only produced low levels of solar activity during the summary period. Other activity included many filament eruptions but only a DSF on ~17/0930 UTC, centered near S40W38, was modeled and thought to have an Earth-directed component. Model output suggested anticipated onset of the CME to be late on 20 Mar to early on 21 Mar. Lastly, a Type IV radio sweep was observed in conjunction with an impulsive C9/1n 18/0716 UTC flare from Region 3256 (S22, L=004, class/area=Eko/270 on 19 Mar).

The greater than 10 MeV proton flux reached S1 (Minor) levels on 13 Mar. The enhancement was associated with a full-halo CME first observed in SOHO/LASCO C2 imagery beginning near 13/0336 UTC. The energetic event was determined to be associated with activity on the far-side of the Sun but still was able to produce significant enhancements in relativistic proton flux on the GOES-16 satellite. S1 conditions were reached again on 14 Mar, with an additional enhancement associated with a shock ahead of a CME that would arrive on 15 Mar that would increase 10 MeV protons back above the S1 threshold to an eventual peak flux of 22 pfu at 15/0425 UTC. After shock passage, the >10 MeV proton flux quickly decreased, with the last observation above the S1 threshold observed at 15/0530 UTC.

The greater than 2 MeV electron flux at geosynchronous orbit was moderate levels over the summary period.

Geomagnetic field activity range from quiet to G2 (Moderate) geomagnetic storm levels. G2 conditions were observed on 15 Mar in response to influence from a CMEs that left the Sun over 11 and 12 Mar. Total magnetic field strength (Bt) increased from 8 nT 18 nT during the shock at 15/0347 UTC. With the shock, wind speeds increased from ~425 km/s to ~525 km/s. Bt reached a peak of 24-25 nT shortly after and solar wind speeds were recorded at ~570 km/s before both speeds and Bt underwent a gradual decline. Weaker activity, also associated with transient activity produced active conditions on 14 Mar and 16 Mar. Mostly quiet to unsettled conditions were observed on 17-19 Mar and only quiet conditions were observed on 13 Mar.

Space Weather Outlook
20 March - 15 April 2023

Solar activity is expected to be at low levels with a chance for R1-R2 (Minor-Moderate) events. This is due to the flare potential of regions both currently on the visible disk and significant regions expected to return to the visible disk from the far-side of the Sun over the outlook period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to range from

moderate to high levels. High levels are likely on 26-29 Mar and 31 Mar - 06 Apr due to multiple, recurrent CH HSSs. The remainder of the outlook period is likely to be at normal to moderate levels.

Geomagnetic field activity is expected to be at quiet to G2 (Moderate) geomagnetic storm levels. G2 conditions are likely on 25 Mar; G1 (Minor) conditions are likely on 26 Mar and 30-31 Mar; active conditions are likely on 20-21 Mar, 01-02 Apr and 10-11 Apr; unsettled conditions are likely on 24 Mar, 27-28 Mar, 03-04 Apr, 12 Apr and 14-15 Apr. With the exception of 20-21 Mar, which is expected to include possible transient influence as well, all anticipated enhancements in geomagnetic conditions are in response to multiple, recurrent CH HSSs. The 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
13 March	143	87	480	B5.6	1	0	0	2	0	0	0	0
14 March	139	97	250	B5.9	5	0	0	3	0	0	0	0
15 March	136	96	280	B5.6	2	0	0	0	0	0	0	0
16 March	135	84	120	B6.1	2	0	0	0	0	0	0	0
17 March	134	58	150	B8.4	5	1	0	7	0	0	0	0
18 March	140	35	320	B8.7	2	0	0	2	1	0	0	0
19 March	143	73	510	B9.5	9	0	0	6	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
13 March	7.7e+05	4.9e+05	1.1e+07
14 March	2.1e+08	7.8e+05	7.1e+06
15 March	2.9e+08	4.5e+05	1.2e+06
16 March	5.3e+06	5.4e+04	1.9e+06
17 March	1.1e+06	4.7e+04	2.9e+06
18 March	5.9e+05	5.1e+04	2.9e+06
19 March	1.7e+06	8.6e+04	5.4e+06

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
13 March	2	0-0-1-1-1-1-1-1	0	0-0-0-0-0-1-0-0	3	1-0-1-1-1-1-1-1
14 March	12	2-3-3-3-3-2-2-3	21	2-2-4-5-4-4-3-2	17	3-3-3-4-3-3-2-4
15 March	19	3-4-3-3-3-2-2-5	31	3-5-4-6-4-3-2-4	29	4-6-4-4-3-2-2-6
16 March	6	3-3-0-1-1-1-1-1	7	3-2-1-3-2-1-1-0	8	4-3-1-1-1-1-1-1
17 March	7	0-1-2-3-3-2-1-1	11	0-1-2-4-5-0-0-1	7	1-2-2-3-3-1-1-2
18 March	6	2-2-1-2-2-0-2-1	23	1-3-1-6-5-0-2-1	8	3-3-2-2-2-1-2-1
19 March	8	1-2-3-2-2-3-2-1	9	1-3-3-2-2-3-1-1	7	2-3-3-2-2-2-3-2

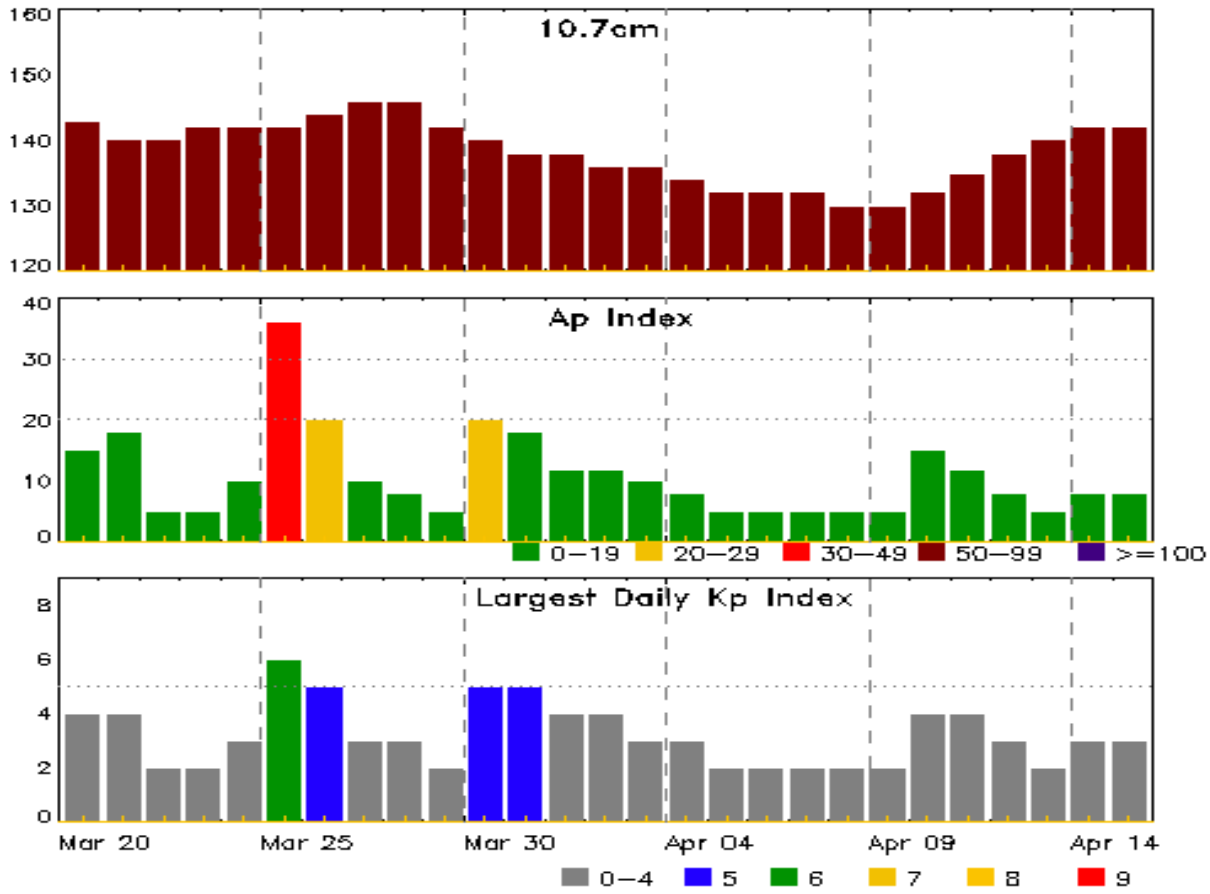
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
13 Mar 0746	WARNING: Proton 10MeV Integral Flux > 10pfu	13/0745 - 1800
13 Mar 0755	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	13/0750
13 Mar 1722	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	13/0745 - 2359
13 Mar 2003	WATCH: Geomagnetic Storm Category G1 predicted	
14 Mar 0022	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	13/0745 - 2359
14 Mar 0421	WARNING: Geomagnetic K = 4	14/0422 - 1500
14 Mar 1106	WARNING: Proton 10MeV Integral Flux > 10pfu	14/1105 - 2359
14 Mar 1202	ALERT: Geomagnetic K = 4	14/1159
14 Mar 1211	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	14/1155
14 Mar 1459	EXTENDED WARNING: Geomagnetic K = 4	14/0422 - 2359
14 Mar 2044	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	14/1105 - 15/1200
14 Mar 2323	EXTENDED WARNING: Geomagnetic K = 4	14/0422 - 15/1200
15 Mar 0347	WARNING: Geomagnetic K = 5	15/0347 - 1200
15 Mar 0356	ALERT: Geomagnetic K = 5	15/0355
15 Mar 0400	WARNING: Geomagnetic K = 6	15/0400 - 1200
15 Mar 0407	WARNING: Geomagnetic Sudden Impulse expected	15/0430 - 0530
15 Mar 0425	EXTENDED WARNING: Geomagnetic K = 5	15/0347 - 1800
15 Mar 0425	EXTENDED WARNING: Geomagnetic K = 4	14/0422 - 15/2359
15 Mar 0425	EXTENDED WARNING: Geomagnetic K = 6	15/0400 - 1500
15 Mar 0425	WARNING: Geomagnetic K>= 7	15/0425 - 1200
15 Mar 0455	SUMMARY: Geomagnetic Sudden Impulse	15/0428
15 Mar 0559	ALERT: Geomagnetic K = 6	15/0559
15 Mar 1136	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	14/1155 - 15/0535
15 Mar 2245	WARNING: Geomagnetic K = 5	15/2242 - 16/0600
15 Mar 2246	ALERT: Geomagnetic K = 5	15/2246
15 Mar 2321	WARNING: Geomagnetic K = 6	15/2315 - 16/0600
15 Mar 2322	ALERT: Geomagnetic K = 6	15/2322
15 Mar 2331	EXTENDED WARNING: Geomagnetic K = 4	14/0422 - 16/1200

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
18 Mar 0750	ALERT: Type IV Radio Emission	18/0722

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
20 Mar	143	15	4	03 Apr	136	10	3
21	140	18	4	04	134	8	3
22	140	5	2	05	132	5	2
23	142	5	2	06	132	5	2
24	142	10	3	07	132	5	2
25	142	36	6	08	130	5	2
26	144	20	5	09	130	5	2
27	146	10	3	10	132	15	4
28	146	8	3	11	135	12	4
29	142	5	2	12	138	8	3
30	140	20	5	13	140	5	2
31	138	18	5	14	142	8	3
01 Apr	138	12	4	15	142	8	3
02	136	12	4				

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
17 Mar	1504	1507	1511	M1.0		0.003	SN	S22W65	3247			

Flare List

	Time			X-ray	Optical		
Date	Begin	Max	End	Class	Imp/ Brtns	Location Lat CMD	Rgn #
13 Mar	1018	1106	1148	C3.1			
13 Mar	1101	1102	1114		SF	N25E05	
13 Mar	1722	1736	1730		SF	S20W04	3250
14 Mar	0459	0504	0512	B9.2			
14 Mar	0551	0606	0626	C3.0	SF	S18W07	3250
14 Mar	0802	0809	0815	C1.3	SF	S26W20	3254
14 Mar	1100	1119	1133	C2.9			3254
14 Mar	2216	2226	2237	C1.2	SF	S28W23	3254
14 Mar	2325	2328	2332	C1.0			3254
15 Mar	0623	0630	0636	C1.0			3254
15 Mar	1936	1943	1949	B8.6			3247
15 Mar	2101	2216	2311	C1.0			
16 Mar	0615	0643	0712	C1.3			
16 Mar	1243	1255	1312	C1.4			3245
17 Mar	0612	0626	0634	C6.4			3256
17 Mar	0645	0652	0657	C6.4	SF	S19E80	3256
17 Mar	0704	0728	0731		SF	S23W61	3247
17 Mar	1030	1035	1041	C1.4			3256
17 Mar	1215	1238	1258	C3.0			3256
17 Mar	1258	1314	1320	C7.3			3247
17 Mar	1310	1311	1314		SF	S18E82	3256
17 Mar	1313	1313	1320		SF	S22W65	3247
17 Mar	1402	1403	1408		SF	S22W65	3247
17 Mar	1504	1507	1511	M1.0	SN	S22W65	3247
17 Mar	2315	2320	2321		SF	S11W56	3249
18 Mar	0027	0037	0042	C3.8	SF	S24E79	3256
18 Mar	0710	0716	0720	C9.4	1N	S22E72	3256
18 Mar	1009	1009	1011		SF	S19E67	3256
19 Mar	0031	0032	0036		SF	S22E63	3256
19 Mar	0212	0215	0219	C2.8	SF	S22E63	3256

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
19 Mar	0322	0330	0338	C1.7			3257
19 Mar	0354	0356	0400	C2.4			3256
19 Mar	0621	0621	0624		SF	S22E60	3256
19 Mar	0630	0635	0641	C4.5	SF	S22E60	3256
19 Mar	0839	0844	0848	C1.8			3257
19 Mar	1146	1151	1155	C1.5	SF	S26E76	3257
19 Mar	1704	1707	1711	C1.8			3257
19 Mar	1759	1809	1813	C4.9			3256
19 Mar	1902	1907	1911	C2.2	SF	S26E71	3257

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 3239												
28 Feb	N30E69	238	90	3	Hsx	1	A								
01 Mar	N30E55	241	100	2	Hsx	1	A								
02 Mar	N31E41	241	100	2	Hsx	1	A								
03 Mar	N31E28	241	100	2	Hsx	1	A	1							
04 Mar	N31E14	241	100	3	Hsx	1	A								
05 Mar	N31E01	241	110	3	Hsx	1	A								
06 Mar	N31W12	241	120	3	Hsx	1	A								
07 Mar	N33W25	241	100	2	Hsx	1	A								
08 Mar	N33W37	240	140	2	Hsx	1	A								
09 Mar	N32W41	241	70	2	Hsx	1	A								
10 Mar	N32W57	243	70	2	Hsx	1	A								
11 Mar	N32W70	233	70	2	Hsx	1	A								
12 Mar	N32W83	233	70	2	Hsx	1	A								
								1	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 241

			Region 3241												
01 Mar	N27E73	222	50	4	Hsx	3	A								
02 Mar	N27E59	223	70	4	Hsx	2	A								
03 Mar	N27E46	223	70	4	Hsx	2	A								
04 Mar	N27E32	223	60	2	Hsx	1	A								
05 Mar	N27E19	223	50	2	Hsx	1	A								
06 Mar	N27E05	224	50	1	Hsx	1	A	2			2				
07 Mar	N28W08	224	40	1	Hsx	1	A								
08 Mar	N29W22	225	70	1	Hsx	1	A								
09 Mar	N28W36	226	20	1	Hsx	1	A								
10 Mar	N28W48	224	30	1	Hax	1	A								
11 Mar	N28W61	224	30	1	Hsx	1	A								
12 Mar	N28W74	224	10	1	Axx	1	A								
13 Mar	N28W88	225	plage												
								2	0	0	2	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 224

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 3242													
02 Mar	N10E66	216	220	6	Cao	5	B								
03 Mar	N10E53	216	230	6	Cao	8	B	2			10	1			
04 Mar	N10E39	216	140	8	Cai	16	B	6	1		5	2	2		
05 Mar	N10E26	216	170	14	Eai	16	B	2	1		5				
06 Mar	N10E12	217	240	13	Esc	23	B		1						
07 Mar	N10W02	218	300	15	Esc	27	BD	1			1				
08 Mar	N10W15	218	245	14	Esi	18	BG	1	1		2				
09 Mar	N09W29	219	170	14	Esi	13	BG	3			4	1			
10 Mar	N10W44	220	110	10	Cso	7	B	1			2				
11 Mar	N10W57	224	100	2	Hsx	1	A								
12 Mar	N11W72	222	100	2	Hsx	1	A								
13 Mar	N13W86	223	80	2	Hsx	1	A								
								16	4	0	29	4	2	0	0

Crossed West Limb.
Absolute heliographic longitude: 218

		Region 3245													
03 Mar	S23E74	195	80	3	Hsx	1	A								
04 Mar	S23E60	195	120	3	Hsx	1	A	1			1				
05 Mar	S23E47	195	140	4	Hax	2	A	1							
06 Mar	S23E33	196	250	4	Dko	9	BG				1				
07 Mar	S22E22	196	300	4	Dki	13	B	3			1				
08 Mar	S23E07	196	440	5	Dhi	11	BG	1	1		3	1			
09 Mar	S24W07	197	250	7	Dho	11	BG	5			4				
10 Mar	S23W18	194	220	4	Csi	9	B	3			2	2			
11 Mar	S23W31	194	220	4	Cso	7	B	6			4				
12 Mar	S23W44	194	210	3	Cso	2	B	1			1				
13 Mar	S23W57	194	250	4	Hhx	1	A								
14 Mar	S23W70	194	90	3	Hsx	2	A								
15 Mar	S22W85	195	140	3	Hsx	1	A								
								21	1	0	17	3	0	0	0

Crossed West Limb.
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 3246													
05 Mar	N23E70	172	60	2	Hsx	1	A				4				
06 Mar	N23E56	173	80	4	Cao	4	B								
07 Mar	N24E42	174	60	6	Cao	3	B								
08 Mar	N23E28	175	50	6	Hax	1	A								
09 Mar	N25E14	176	40	1	Hax	1	A								
10 Mar	N25W00	176	50	2	Cao	3	B								
11 Mar	N24W13	176	30	2	Hsx	2	A								
12 Mar	N24W26	176	30	2	Hsx	2	A								
13 Mar	N24W40	177	plage												
14 Mar	N24W54	178	plage												
15 Mar	N24W69	179	plage												
16 Mar	N24W83	180	plage												
								0	0	0	4	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 176

		Region 3247													
06 Mar	S23E68	161	50	2	Dao	2	B								
07 Mar	S23E54	162	90	3	Cso	3	B								
08 Mar	S24E41	162	100	4	Cao	3	B								
09 Mar	S24E28	162	70	7	Cso	5	B								
10 Mar	S23E16	160	70	7	Cso	6	B								
11 Mar	S23E03	160	70	4	Cso	4	B								
12 Mar	S23W10	160	60	3	Cso	3	B								
13 Mar	S19W24	161	30	2	Hax	2	A								
14 Mar	S22W38	162	20	1	Hax	1	A								
15 Mar	S23W53	163	10	1	Axx	1	A								
16 Mar	S23W65	162	10	1	Axx	1	A								
17 Mar	S24W78	162	10	1	Axx	1	A	1	1		4				
								1	1	0	4	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 160

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 3249												
07 Mar	S12E75	141	120	1	Hsx	1	A								
08 Mar	S12E61	142	150	2	Hax	1	A								
09 Mar	S11E47	143	30	1	Hax	1	A								
10 Mar	S11E34	142	70	2	Hsx	1	A								
11 Mar	S11E21	142	60	1	Hsx	1	A								
12 Mar	S11E08	142	50	2	Hsx	2	A								
13 Mar	S11W06	143	20	3	Cro	2	B								
14 Mar	S11W19	143	10	1	Axx	1	A								
15 Mar	S11W33	143	10	1	Axx	1	A								
16 Mar	S11W44	141	10	1	Axx	1	A								
17 Mar	S11W57	141	plage								1				
18 Mar	S11W71	142	plage												
19 Mar	S11W85	143	plage												
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 143

			Region 3250												
09 Mar	S20E45	145	10	3	Bxo	4	B	2							
10 Mar	S20E32	144	10	4	Bxo	5	B								
11 Mar	S20E19	144	70	4	Cao	7	B								
12 Mar	S20E06	144	80	5	Cao	7	B								
13 Mar	S18W08	145	30	4	Dri	9	B				1				
14 Mar	S18W22	146	10	4	Bxo	5	B	1			1				
15 Mar	S19W37	147	10	3	Axx	3	A								
16 Mar	S18W47	144	10	1	Axx	1	A								
17 Mar	S18W61	145	plage												
18 Mar	S18W75	146	plage												
19 Mar	S18W89	147	plage												
								3	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 144

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 3251												
09 Mar	S13E69	121	50	2	Hsx	1	A								
10 Mar	S13E55	121	50	3	Hsx	1	A								
11 Mar	S13E42	121	50	2	Hsx	1	A								
12 Mar	S13E29	121	50	2	Hsx	1	A								
13 Mar	S13E16	121	50	1	Hsx	1	A								
14 Mar	S13E02	122	50	1	Hsx	1	A								
15 Mar	S13W12	122	60	2	Hax	1	A								
16 Mar	S13W22	119	40	1	Hsx	1	A								
17 Mar	S13W35	119	40	1	Hsx	1	A								
18 Mar	S13W48	119	30	1	Hsx	1	A								
19 Mar	S13W62	120	30	1	Hsx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 122

			Region 3252												
09 Mar	N16E74	116	plage					1							
10 Mar	N16E60	116	20	1	Hsx	1	A								
11 Mar	N13E47	116	20	1	Hsx	1	A								
12 Mar	N13E34	116	20	1	Hsx	1	A								
13 Mar	N12E20	117	20	1	Hrx	1	A								
14 Mar	N13E06	118	10	1	Hrx	1	A								
15 Mar	N13W09	119	10	1	Axx	1	A								
16 Mar	N13W21	118	10	1	Axx	1	A								
17 Mar	N13W35	119	10	1	Axx	1	A								
18 Mar	N13W49	120	plage												
19 Mar	N13W63	121	plage												
								1	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 118

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 3253												
12 Mar	S30W01	151	10	3	Bxo	4	B	1							
13 Mar	S29W15	152	plage												
14 Mar	S29W29	153	plage												
15 Mar	S29W44	154	plage												
16 Mar	S29W58	155	plage												
17 Mar	S29W72	156	plage												
18 Mar	S29W86	157	plage												
								1	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 151

			Region 3254												
14 Mar	S24W28	152	50	4	Cao	5	B	4			2				
15 Mar	S25W43	153	30	5	Cro	5	B	1							
16 Mar	S25W55	152	30	5	Bxo	7	B								
17 Mar	S24W69	153	30	4	Bxo	4	B								
18 Mar	S25W83	154	plage												
								5	0	0	2	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 152

			Region 3255												
14 Mar	S05E39	85	10	3	Bxo	1	B								
15 Mar	S05E24	86	10	4	Bxo	3	B								
16 Mar	S05E13	84	10	4	Bxo	2	B								
17 Mar	S05W02	86	plage												
18 Mar	S05W17	88	plage												
19 Mar	S05W32	90	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 86

			Region 3256												
17 Mar	S21E73	11	60	2	Hsx	1	A	4			1				
18 Mar	S22E66	9	250	15	Eho	2	B	2			2	1			
19 Mar	S22E54	4	270	15	Eko	3	B	4			4				
								10	0	0	7	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 4

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 3257												
18 Mar	S27E82	349	40	3	Dao	2	B								
19 Mar	S27E68	350	120	4	Hax	2	A	5			2				
								5	0	0	2	0	0	0	0
Still on Disk. Absolute heliographic longitude: 350															
			Region 3258												
19 Mar	N18E32	26	10	1	Axx	2	A								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 26															
			Region 3259												
19 Mar	S16E69	351	20	4	Bxo	4	B								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 351															
			Region 3260												
19 Mar	N22E70	348	60	2	Hsx	1	A								
								0	0	0	0	0	0	0	0
Still on Disk. Absolute heliographic longitude: 348															

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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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