Space Weather Highlights **SWPC PRF 2469**
19 December - 25 December 2022 **26 December 2022**

Solar activity reached moderate levels on 20 Dec. Region 3169 (N19, L=116, class/area=Dho/290 on 21 Dec) produced an M1/Sf at 20/1406 UTC which was the largest event of the period. Low levels of solar activity and C-class flare activity were observed throughout the remainder of the period. A CME from 24 Dec was determined to have an Earth-directed component, and is expected to arrive on 27 Dec. No other Earth-directed CMEs were detected this period.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 24-25 Dec, and normal to moderate levels were observed on 17-23 Dec.

Geomagnetic field activity reached minor storm levels on 23 Dec, and active levels on 19, 22, and 24 Dec, all due to CH HSS influences. Quiet to unsettled field activity were observed throughout the remainder of the period.

Space Weather Outlook
26 December - 21 January 2023

Solar activity is expected to be low throughout the period with a slight chance for M-class flare activity.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach high levels on 26 Dec-03 Jan, and 20-21 Jan. Normal to moderate levels are expected to persist throughout the remainder of the period.

Geomagnetic field activity is expected to reach minor storm levels on 27 Dec due to the anticipated arrival of a CME from 24 Dec in addition to positive polarity CH HSS influences. Minor storms are expected again on 03 Jan and 19-20 Jan due to the influences of multiple recurrent CH HSSs. Active conditions are expected on 28, 30-31 Dec and 04, 18 Jan. Quiet and quiet to unsettled activity are expected to persist throughout the remainder of the period.

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
19 December	152	132	890	C1.3	13	0	0	10	0	0	0	0
20 December	146	119	910	C1.1	8	1	0	17	1	0	0	0
21 December	139	103	880	C1.0	7	0	0	4	3	0	0	0
22 December	131	108	470	B7.6	8	0	0	8	0	0	0	0
23 December	128	100	650	B7.1	9	0	0	9	0	0	0	0
24 December	133	85	580	B6.6	7	0	0	11	0	0	0	0
25 December	-1	107	510	B9.0	8	0	0	5	1	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
19 December	1.2e+05	3.1e+04	1.1e+06
20 December	1.2e+05	3.2e+04	1.4e+06
21 December	1.3e+05	3.1e+04	1.3e+06
22 December	1.1e+05	3.2e+04	1.6e+06
23 December	1.9e+05	3.1e+04	2.0e+06
24 December	1.5e+05	3.0e+04	4.2e+07
25 December	8.9e+04	3.1e+04	8.3e+07

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
19 December	9	2-4-3-1-2-2-2-0	14	1-4-4-3-3-3-1-2	11	2-4-3-2-2-2-2-2
20 December	5	2-1-1-1-1-2-1-2	3	1-1-1-1-0-1-1-1	6	2-1-1-1-1-2-2-3
21 December	7	1-1-3-2-2-3-1-1	8	1-1-3-3-2-3-1-0	9	2-1-3-2-2-3-2-1
22 December	7	1-0-1-2-2-3-3-2	28	0-0-3-5-6-5-4-2	12	1-0-2-2-3-4-4-3
23 December	19	4-1-3-2-5-3-2-4	42	2-1-4-5-7-6-3-3	24	4-2-4-3-5-4-2-5
24 December	15	2-3-4-3-2-4-3-2	49	3-5-6-6-5-6-4-3	23	3-4-4-4-3-4-4-3
25 December	8	2-3-2-2-2-2-1-2	11	3-2-1-1-3-3-3-3	15	3-3-2-1-2-2-2-3

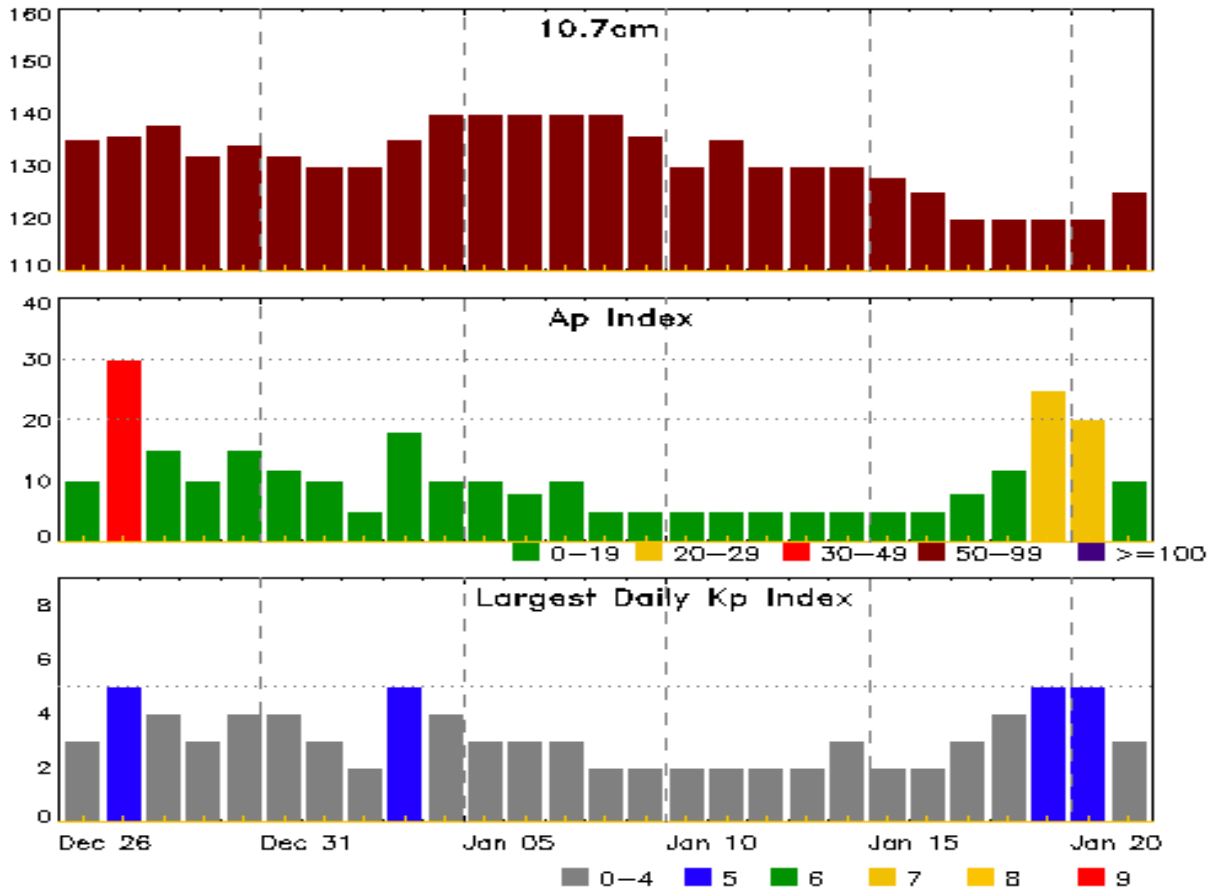
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
19 Dec 0327	ALERT: Type II Radio Emission	19/0257
19 Dec 0352	WARNING: Geomagnetic K = 4	19/0351 - 1500
19 Dec 0425	ALERT: Geomagnetic K = 4	19/0418
21 Dec 0522	ALERT: Type II Radio Emission	21/0451
21 Dec 0633	WARNING: Geomagnetic K = 4	21/0633 - 2100
22 Dec 1324	WARNING: Geomagnetic K = 4	22/1324 - 2100
22 Dec 1802	ALERT: Geomagnetic K = 4	22/1759
22 Dec 2032	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 23/0900
23 Dec 0854	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 23/1800
23 Dec 1339	WARNING: Geomagnetic K = 5	23/1337 - 1800
23 Dec 1341	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 23/2100
23 Dec 1417	ALERT: Geomagnetic K = 5	23/1415
23 Dec 2050	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 24/0300
23 Dec 2222	WARNING: Geomagnetic K = 5	23/2221 - 24/0600
23 Dec 2238	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 24/0900
24 Dec 0001	ALERT: Geomagnetic K = 5	23/2359
24 Dec 0537	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 1500
24 Dec 0538	EXTENDED WARNING: Geomagnetic K = 5	23/2221 - 24/1500
24 Dec 1155	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 24/1500
24 Dec 1422	ALERT: Electron 2MeV Integral Flux >= 1000pfu	24/1415
24 Dec 1454	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 24/2100
24 Dec 1649	WARNING: Geomagnetic K = 5	24/1648 - 2100
24 Dec 2056	EXTENDED WARNING: Geomagnetic K = 5	24/1648 - 25/0300
24 Dec 2058	CANCELLATION: Geomagnetic K = 5	
24 Dec 2059	EXTENDED WARNING: Geomagnetic K = 4	22/1324 - 25/0300
24 Dec 2116	WATCH: Geomagnetic Storm Category G1 predicted	
25 Dec 0437	WARNING: Geomagnetic K = 4	25/0436 - 1500
25 Dec 0504	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	24/1415

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
25 Dec 0741	SUMMARY: 10cm Radio Burst	25/0658 - 0700
25 Dec 0759	ALERT: Type II Radio Emission	25/0713

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
26 Dec	135	10	3	09 Jan	136	5	2
27	136	30	5	10	130	5	2
28	138	15	4	11	135	5	2
29	132	10	3	12	130	5	2
30	134	15	4	13	130	5	2
31	132	12	4	14	130	5	3
01 Jan	130	10	3	15	128	5	2
02	130	5	2	16	125	5	2
03	135	18	5	17	120	8	3
04	140	10	4	18	120	12	4
05	140	10	3	19	120	25	5
06	140	8	3	20	120	20	5
07	140	10	3	21	125	10	3
08	140	5	2				

Energetic Events

	Time			X-ray		Optical Information			Peak Radio Flux		Sweep Freq Intensity	
Date	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	245	2695	II	IV
20 Dec	1359	1406	1414	M1.1	0.008	SF	N20E45	3169				

Flare List

	Time				Optical		
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
19 Dec	0010	0013	0014		SF	S14W57	3162
19 Dec	0016	0016	0019		SF	S20W31	3163
19 Dec	0214	0223	0227	C2.5			3162
19 Dec	0237	0252	0301		SF	S14W57	3162
19 Dec	0305	0309	0316		SF	S20W31	3163
19 Dec	0332	0343	0354	C2.5			
19 Dec	0349	0349	0353		SF	N20W65	3167
19 Dec	0556	0602	0606	C2.6			3171
19 Dec	0622	0629	0637	C2.1	SF	S14W57	3162
19 Dec	0849	0903	0914	C2.0	SF	S19W45	3163
19 Dec	1030	1041	1051	C4.5			3169
19 Dec	B1123	U1144	A1241	C7.3	SF	N20W72	3167
19 Dec	B1307	U1307	A1350		SF	S07W60	3166
19 Dec	1344	1349	1356	C4.0			3169
19 Dec	1417	1429	1440	C8.0			3169
19 Dec	1835	1848	1904	C3.7			3163
19 Dec	1959	2001	2007		SF	N25E79	3171
19 Dec	2051	2058	2102	C4.2			3169
19 Dec	2207	2227	2252	C3.8			3167
19 Dec	2346	0004	0014	C6.8			3169
20 Dec	0255	0303	0319		SF	S20W31	3163
20 Dec	0305	0306	0308		SF	N25E67	3171
20 Dec	0346	0403	0419	C2.3	SF	S20W31	3169
20 Dec	0521	0545	0603	C6.6			3169
20 Dec	0603	0609	0613	C5.0			3169
20 Dec	0649	0650	0651		SF	N20E45	3169
20 Dec	0740	0749	0755	C2.5			3169
20 Dec	0842	0853	0906	C8.1	1F	S19E49	3170
20 Dec	B1328	U1329	A1357		SF	N24E58	3171
20 Dec	B1355	U1357	A1412	M1.1	SF	N20E45	3169

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
20 Dec	B1452	1459	1503		SF	N25E58	3171
20 Dec	1529	1531	1540		SF	S19W61	3163
20 Dec	1621	1621	1624		SF	S19W63	3163
20 Dec	1629	1629	1630		SF	N23E46	3169
20 Dec	1644	1646	1648		SF	N19E43	3169
20 Dec	1813	1813	1815		SF	S19W64	3163
20 Dec	1839	1840	1842		SF	S19W64	3163
20 Dec	1921	1922	1923		SF	S19W64	3163
20 Dec	1953	2001	2007	C1.3			3169
20 Dec	2010	2019	2029	C2.7			3169
20 Dec	2103	2104	2108		SF	S19W65	3163
20 Dec	2237	2302	2328		SF	S20W31	3163
20 Dec	2331	2333	2340		SF	S20W31	3163
20 Dec	2356	0003	0007	C1.4			3169
21 Dec	0007	0015	0019	C2.2			
21 Dec	0012	0014	0017		SF	N20E33	3169
21 Dec	0147	0148	0151		SF	N20E33	3169
21 Dec	0513	0518	0522	C6.9	1F	N20E33	3169
21 Dec	0557	0621	0640	C7.6			3169
21 Dec	0855	0901	0906	C1.8			3170
21 Dec	1204	1208	1212	C3.2	SF	N22E34	3169
21 Dec	1244	1245	1247		SF	S19W75	3163
21 Dec	2025	2045	2149		1N	N22E28	3169
21 Dec	2037	2053	2055	C4.8			
21 Dec	2204	2219	2226	C5.1			3169
21 Dec	2210	2211	2327		1N	N22E28	3169
22 Dec	0343	0350	0357	C1.1			3169
22 Dec	0357	0403	0407	C1.2	SF	N22E30	3169
22 Dec	0529	0538	0544	C1.6	SF	N22E30	3169
22 Dec	0746	0746	0750		SF	N20E22	3169
22 Dec	0856	0857	0908		SF	N22E30	3169
22 Dec	B0901	U0909	A0911		SF	N20E22	3169
22 Dec	1215	1216	1235		SF	N20E22	3169
22 Dec	1452	1501	1505	C3.4			3171
22 Dec	1955	2003	2009	C1.1	SF	N23E44	3174
22 Dec	2103	2112	2121	C1.3	SF	S22E15	3170
22 Dec	2120	2125	2129	C1.2			3170
22 Dec	2121	2125	2129	C1.2			3170

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
23 Dec	0124	0131	0137	C1.9			3169
23 Dec	0429	0430	0432		SF	N25E28	3171
23 Dec	0433	0438	0442	C2.0			3169
23 Dec	0454	0458	0503	C1.2			
23 Dec	0926	0932	0937	B9.5	SF	N21E22	3171
23 Dec	1043	1051	1058	C2.3			
23 Dec	1222	1223	1224		SF	S34E46	3172
23 Dec	1225	1235	1255		SF	N23E07	3169
23 Dec	1319	1320	1333		SF	N21E20	3171
23 Dec	1401	1415	1428	C1.4	SF	S20E06	3170
23 Dec	1428	1446	1458	C6.6			3171
23 Dec	1609	1617	1626	C1.0			3171
23 Dec	1845	1856	1916	C1.0			
23 Dec	2234	2236	2240		SF	N26E15	3171
23 Dec	2308	2322	2350	C1.5	SF	S20E01	3170
23 Dec	2350	2350	2355		SF	S20E01	3170
24 Dec	0020	0028	0035	C1.2	SF	N22E30	3169
24 Dec	0408	0414	0420	C4.0	SN	N18W17	3169
24 Dec	0448	0449	0450		SF	N23W07	3169
24 Dec	0656	0711	0730	C1.0			3169
24 Dec	0801	0811	0818	C2.2	SF	N18W20	3169
24 Dec	1138	1147	1156	B8.7	SF	N21W07	3169
24 Dec	1222	1229	1241	B9.4			3171
24 Dec	1345	1356	1400	C1.9			3169
24 Dec	1518	1520	1525		SF	N24W10	3169
24 Dec	1801	1802	1805		SF	N17W23	3169
24 Dec	1807	1809	1811		SF	N17W23	3169
24 Dec	1904	1909	1915	B8.7			3169
24 Dec	2053	2055	2100		SF	N21W14	3169
24 Dec	2211	2213	2221		SF	N20W16	3169
24 Dec	2226	2232	2241		SF	N20W16	3169
24 Dec	2313	2322	2335	C2.1			3169
24 Dec	2343	2350	0001	C2.7	SF	N18W20	3169
25 Dec	0028	0038	0045	C2.3			
25 Dec	0045	0052	0058	C3.6	1F	S20E01	3170
25 Dec	0333	0339	0346	C1.6			3169
25 Dec	0606	0617	0627	C2.3			3169
25 Dec	0653	0701	0707	C7.8	SF	N18W20	3169

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
25 Dec	B0802	U0922	1117		SF	N20W19	3169
25 Dec	1022	U1031	1034		SF	N21W04	3171
25 Dec	1216	1227	1234		SF	N22W21	3169
25 Dec	1604	1610	1616	C1.4			3171
25 Dec	1830	1840	1846	C2.8			3171
25 Dec	2150	2156	2201	C2.2			3169

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 3160												
06 Dec	N26E72	261	30	2	Hsx	1	A								
07 Dec	N20E60	260	80	1	Hsx	1	A								
08 Dec	N21E48	259	80	1	Hax	1	A								
09 Dec	N22E34	261	80	2	Hax	1	A								
10 Dec	N22E22	260	80	2	Hsx	1	A				1				
11 Dec	N22E08	260	80	2	Hsx	1	A								
12 Dec	N22W03	258	80	2	Hsx	1	A								
13 Dec	N22W16	258	80	2	Hsx	1	A								
14 Dec	N23W29	257	80	2	Hsx	1	A								
15 Dec	N23W42	258	70	2	Hsx	1	A								
16 Dec	N23W56	258	plage	1		1									
17 Dec	N23W69	258	50	1	Hsx	1	A	1			1				
18 Dec	N23W81	257	30	1	Hsx	1	A								
								1	0	0	2	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 258

			Region 3162												
09 Dec	S13E56	239	60	2	Hsx	1	A	2							
10 Dec	S13E43	239	70	2	Hsx	1	A								
11 Dec	S13E29	239	70	2	Hsx	1	A								
12 Dec	S13E16	239	80	2	Hsx	1	A								
13 Dec	S13E03	238	90	2	Hsx	1	A								
14 Dec	S13W10	237	80	2	Hsx	1	A								
15 Dec	S12W23	239	80	2	Cso	2	B								
16 Dec	S09W37	238	plage	2		1									
17 Dec	S14W51	240	40	2	Hsx	2	A	1							
18 Dec	S13W63	239	30	4	Cro	4	B	2			2				
19 Dec	S14W76	239	10	2	Axx	3	A	2			3				
20 Dec	S14W90	240	plage												
								7	0	0	5	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 238

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 3163												
09 Dec	S20E78	218	plage					10							
10 Dec	S20E64	218	130	9	Dso	5	B	6			7				
11 Dec	S20E51	217	140	11	Eso	9	B	4			3				
12 Dec	S20E39	216	160	12	Eso	8	B								
13 Dec	S20E28	213	200	12	Eso	14	B								
14 Dec	S20E15	214	350	12	Ekc	22	BG				3				
15 Dec	S19E02	213	400	13	Ekc	23	BG	3			6	1			
16 Dec	S20W13	214	plage	12		14			1		5				
17 Dec	S20W26	215	530	12	Eki	22	BG				5				
18 Dec	S20W39	215	380	12	Eko	15	B				1				
19 Dec	S19W52	215	350	12	Eko	14	B	2			3				
20 Dec	S19W66	216	380	11	Eki	10	B				9				
21 Dec	S19W80	216	330	6	Dko	6	B				1				
								25	1	0	43	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 213

			Region 3166												
11 Dec	S07E45	222	20	6	Cro	4	B	1			1				
12 Dec	S08E32	223	10	5	Bxo	3	B	1							
13 Dec	S09E16	225	10	1	Axx	1	A								
14 Dec	S09E02	227	30	6	Cro	6	B								
15 Dec	S08W11	226	80	8	Dao	15	B								
16 Dec	S08W25	227	plage	7		8									
17 Dec	S08W39	228	170	8	Dso	9	B	1			7				
18 Dec	S07W52	228	130	7	Dso	10	B								
19 Dec	S07W64	227	180	7	Dso	4	B				1				
20 Dec	S08W78	228	120	7	Dao	4	B								
								3	0	0	9	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 227

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 3167												
13 Dec	N20W01	243	180	6	Dai	9	B								
14 Dec	N20W12	240	190	7	Dao	15	B								
15 Dec	N21W26	241	120	8	Dso	10	B								
16 Dec	N20W40	242	plage	6		5									
17 Dec	N20W53	242	120	7	Cao	5	B	1			2				
18 Dec	N20W64	240	30	8	Cso	4	B								
19 Dec	N20W77	240	40	5	Cao	7	B	2			2				
20 Dec	N20W91	241	20	3	Cao	3	B								
								3	0	0	4	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 243

			Region 3168												
14 Dec	S16E68	161	90	2	Cso	1	B	1			1				
15 Dec	S15E53	162	70	4	Hsx	3	A				1				
16 Dec	S16E41	160	plage	1		1					1				
17 Dec	S16E28	161	50	1	Hsx	1	A								
18 Dec	S16E16	160	50	2	Hsx	1	A								
19 Dec	S16E04	159	50	2	Hsx	1	A								
20 Dec	S15W10	160	60	2	Hsx	1	A								
21 Dec	S16W24	160	60	2	Hsx	1	A								
22 Dec	S14W40	162	50	6	Hsx	1	A								
23 Dec	S16W53	163	50	3	Hsx	1	A								
24 Dec	S15W66	161	70	1	Hsx	1	A								
25 Dec	S16W78	161	60	1	Hsx	1	A								
								1	0	0	3	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 159

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 3169												
17 Dec	N20E69	120	160	3	Dso	2	B	3	1			1			
18 Dec	N21E61	115	240	14	Dso	7	B	6			2				
19 Dec	N21E48	115	200	15	Eac	11	B	5							
20 Dec	N21E36	114	220	15	Esc	14	BG	7	1		5				
21 Dec	N19E19	116	290	10	Dho	15	B	4			3	3			
22 Dec	N20E04	118	230	11	Eso	14	B	3			6				
23 Dec	N19W09	119	260	12	Eho	9	B	2			1				
24 Dec	N20W21	119	260	16	Fsi	25	BG	7			11				
25 Dec	N21W32	116	200	23	Fac	30	BG	4			4				
								41	2	0	32	4	0	0	0

Still on Disk.
Absolute heliographic longitude: 118

			Region 3170												
17 Dec	S18E72	117	20	1	Hrx	1	A	1							
18 Dec	S19E64	112	40	8	Cso	6	B	1							
19 Dec	S19E51	112	30	7	Cro	7	B								
20 Dec	S20E37	113	30	7	Cro	5	B	1				1			
21 Dec	S19E25	110	30	5	Bxo	11	B	1							
22 Dec	S18E09	113	10	3	Bxo	4	B	3			1				
23 Dec	N01W03	113	10	4	Bxo	3	B	2			3				
24 Dec	S19W16	114	plage												
25 Dec	S19W30	114	plage					1				1			
								10	0	0	4	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 113

			Region 3171												
19 Dec	N25E65	98	30	7	Cao	5	B	1			1				
20 Dec	N24E52	98	80	12	Cao	12	B				3				
21 Dec	N23E36	100	150	9	Cao	9	B								
22 Dec	N24E27	95	110	8	Cao	12	B	1							
23 Dec	N24E12	98	250	8	Dko	7	B	2			4				
24 Dec	N23W01	99	140	5	Cko	6	B								
25 Dec	N23W14	98	120	5	Cao	8	B	2			1				
								6	0	0	9	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 99

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 3172												
21 Dec	S35E61	75	20	1	Hsx	1	A								
22 Dec	S34E49	74	30	5	Cso	2	B								
23 Dec	S34E36	74	20	4	Cro	3	B				1				
24 Dec	S34E24	74	30	3	Hsx	2	A								
25 Dec	S36E16	67	40	10	Cro	4	B								
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 67

			Region 3173												
22 Dec	N26E74	50	30	2	Hrx	1	A								
23 Dec	N25E63	47	50	2	Cao	4	B								
24 Dec	N25E50	48	80	2	Hsx	1	A								
25 Dec	N25E37	46	50	2	Hsx	2	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 46

			Region 3174												
22 Dec	N22E38	84	10	2	Bxo	4	B	1							
23 Dec	N23E25	85	10	2	Axx	3	A								
24 Dec	N23E11	86	plage												
25 Dec	N23W03	87	plage												
								1	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 87

			Region 3175												
25 Dec	S20E56	27	40	4	Cro	2	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 27

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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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