

Solar activity ranged from low to high levels (R1-R2/Minor-Moderate). High levels were observed on 17 Jan following an M7.4 (R2) flare at 17/1335 UTC from Region 3964 (N06, L=247, class/area=Dki/475 on 17 Jan). The region also produced ten R1 (Minor) events over 17-19 Jan. Region 3961 (S09, L=181, class/area=Eki/600) also produced an M1.1 (R1) flare at 17/0320 UTC. All other active regions were either quiet to contributed only C-class events. No Earth-directed CMEs were observed in available coronagraph imagery.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was normal to moderate levels.

Geomagnetic field activity was at quiet to active levels. Active conditions were reached on 13 Jan, 15 Jan, 17 Jan, and 19 Jan. Unsettled to quiet conditions were observed for the remainder of the summary period. All elevations in geomagnetic activity were attributed to influence from multiple, negative polarity CH HSSs.

### **Space Weather Outlook** **20 January - 15 February 2025**

Solar activity is likely to reach moderate levels (R1-R2/Minor-Moderate), with a chance for high levels of activity (up to R3-Strong), throughout the outlook period. This potential is driven primarily by Regions 3964 (N06, L=249, class/area=Dki/475 on 17 Jan) and 3961 (S09, L=181, class/area=Eki/600 on 17 Jan) on the Earth-facing side of the Sun as well as multiple regions on the Sun's farside that are due to rotated back onto the visible disk later during the outlook period.

There is a slight chance for proton events of S1 or greater at geosynchronous orbit due primarily to the flare potential from Regions 3964 and 3961 over 20-28 Jan.

The greater than 2 MeV electron flux at geosynchronous orbit is likely to be at high levels on 02-05 Feb due to recurrent CH HSS activity. The remainder of the outlook period is expected to be at normal to moderate levels.

Geomagnetic field activity is expected to be at quiet to G1 (Minor) geomagnetic storm levels. G1 conditions are likely on 31 Jan - 02 Feb, 11 Feb, and 13 Feb. Active conditions are likely on 20 Jan, 03-05 Feb, 10 Feb, 12 Feb, and 14-15 Feb. Unsettle levels are likely over 21 Jan, 06 Feb, and 09 Feb. All elevations in geomagnetic activity are anticipated due 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 <sup>-6</sup> hemi.)	X-ray Background Flux	Flares							
					X-ray			Optical				
					C	M	X	S	1	2	3	4
13 January	160	100	970	C1.2	6	0	0	1	0	0	0	0
14 January	166	106	1030	C1.4	7	0	0	4	0	0	0	0
15 January	174	102	890	C1.5	7	0	0	2	0	0	0	0
16 January	208	105	1240	C2.0	7	0	0	5	0	0	0	0
17 January	227	149	1975	C2.4	18	9	0	11	1	0	0	0
18 January	222	128	2050	C1.7	12	2	0	9	2	0	0	0
19 January	234	143	2030	C1.5	13	1	0	3	0	0	0	0

### ***Daily Particle Data***

Date	Proton Fluence (protons/cm <sup>2</sup> -day -sr)		Electron Fluence (electrons/cm <sup>2</sup> -day -sr)	
	>1 MeV	>10 MeV	>2MeV	
13 January	1.1e+05	1.4e+04	2.6e+06	
14 January	1.2e+05	1.5e+04	7.3e+06	
15 January	4.1e+05	1.5e+04	1.4e+07	
16 January	1.2e+05	1.5e+04	1.4e+07	
17 January	1.6e+05	1.5e+04	1.2e+07	
18 January	2.8e+05	1.5e+04	2.2e+07	
19 January	5.2e+05	1.5e+04	2.3e+07	

### ***Daily Geomagnetic Data***

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
13 January	9	3-2-2-2-2-3-2-1	10	2-1-2-4-2-3-2-2	11	4-2-2-2-2-2-3-2
14 January	10	2-2-3-2-2-3-3-2	10	2-2-3-3-3-2-2-2	12	3-2-3-2-2-3-3-3
15 January	11	3-2-3-2-3-3-2-1	25	2-4-5-3-5-5-2-1	16	4-4-3-3-3-3-3-2
16 January	11	2-3-1-2-3-3-3-2	21	2-4-2-3-5-4-4-2	14	3-3-2-2-3-3-3-3
17 January	14	3-3-3-3-3-2-3-3	29	3-3-3-5-5-5-3-4	21	3-4-4-3-3-3-4-4
18 January	8	2-1-2-2-2-3-2-2	16	2-2-4-4-4-3-2-2	10	3-2-3-2-3-2-2-2
19 January	9	1-1-3-3-3-2-2-2	23	1-2-4-5-4-4-4-3	5	1-2-4-3-3-3-3-4

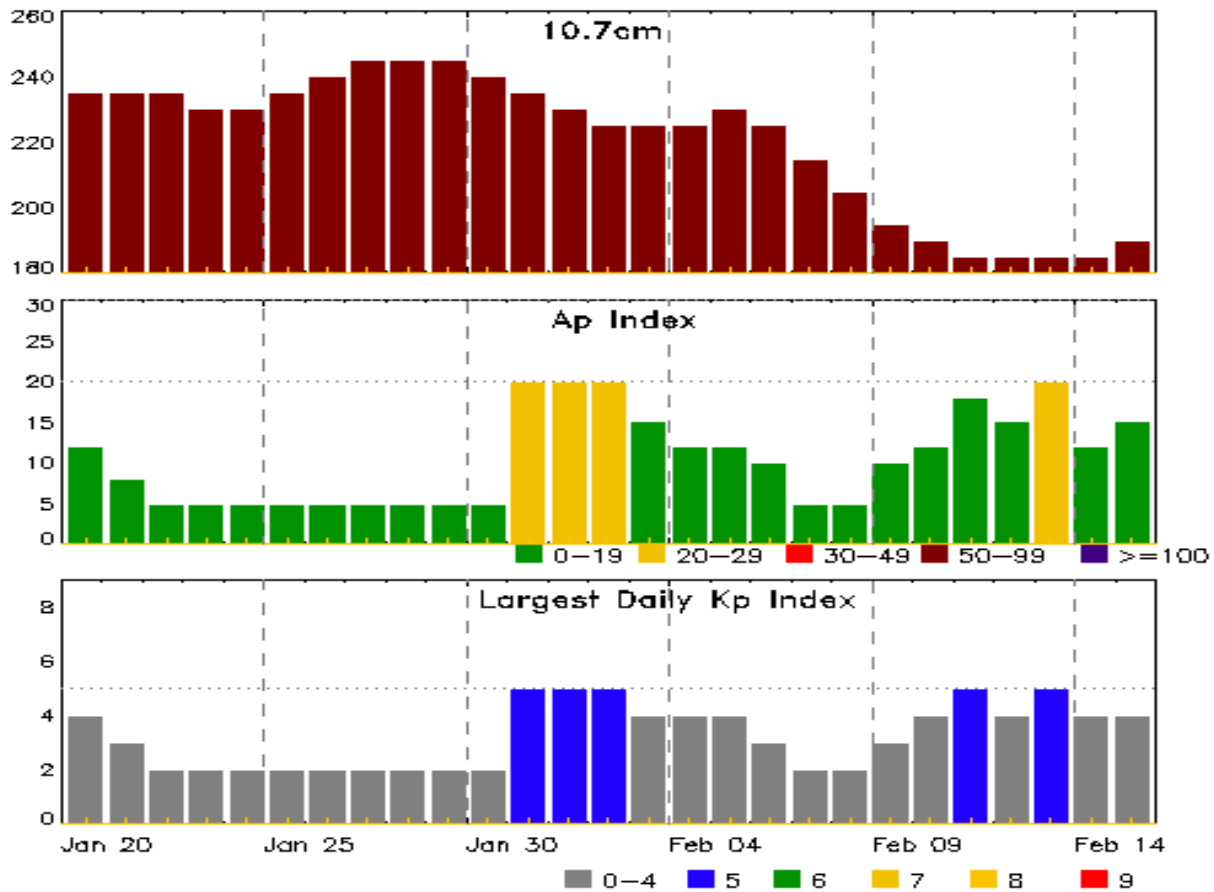


### *Alerts and Warnings Issued*

<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
13 Jan 0106	WARNING: Geomagnetic K = 4	13/0105 - 1500
13 Jan 0124	ALERT: Geomagnetic K = 4	
13 Jan 1321	EXTENDED WARNING: Geomagnetic K = 4	13/0105 - 1800
13 Jan 1724	EXTENDED WARNING: Geomagnetic K = 4	13/0105 - 2359
14 Jan 1728	WARNING: Geomagnetic K = 4	14/1800 - 2359
15 Jan 0139	WARNING: Geomagnetic K = 4	15/0138 - 0900
15 Jan 0302	ALERT: Geomagnetic K = 4	
15 Jan 0854	EXTENDED WARNING: Geomagnetic K = 4	15/0138 - 1800
15 Jan 1654	EXTENDED WARNING: Geomagnetic K = 4	15/0138 - 2100
16 Jan 0243	WARNING: Geomagnetic K = 4	16/0242 - 1200
16 Jan 2048	WARNING: Geomagnetic K = 4	16/2048 - 17/1500
17 Jan 0426	ALERT: Geomagnetic K = 4	
17 Jan 1335	ALERT: X-ray Flux exceeded M5	17/1334
17 Jan 1400	SUMMARY: X-ray Event exceeded M5	17/1324 - 1339
17 Jan 1454	EXTENDED WARNING: Geomagnetic K = 4	16/2048 - 18/1500
19 Jan 0710	WARNING: Geomagnetic K = 4	19/0709 - 2359
19 Jan 0905	ALERT: Geomagnetic K = 4	
19 Jan 2244	EXTENDED WARNING: Geomagnetic K = 4	19/0709 - 20/1500



## Twenty-seven Day Outlook



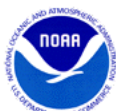
Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index	Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index
20 Jan	235	12	4	03 Feb	225	15	4
21	235	8	3	04	225	12	4
22	235	5	2	05	230	12	4
23	230	5	2	06	225	10	3
24	230	5	2	07	215	5	2
25	235	5	2	08	205	5	2
26	240	5	2	09	195	10	3
27	245	5	2	10	190	12	4
28	245	5	2	11	185	18	5
29	245	5	2	12	185	15	4
30	240	5	2	13	185	20	5
31	235	20	5	14	185	12	4
01 Feb	230	20	5	15	190	15	4
02	225	20	5				

### ***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
17 Jan	0201	0211	0217	M1.3	0.002				3964	140		
17 Jan	0308	0320	0334	M1.1	0.013				3961			
17 Jan	0910	0919	0923	M2.0	0.006				3964			
17 Jan	1119	1137	1149	M1.5	0.015				3964			
17 Jan	1324	1335	1339	M7.4	0.024				3964			
17 Jan	1842	1850	1904	M2.1	0.017	SN	N08W33		3964			
17 Jan	1944	1949	1955	M1.8	0.010	SF	N07W32		3964	1500		
17 Jan	1959	2001	2002	M1.1	0.003	SF	N06W29		3964	240		
17 Jan	2200	2205	2214	M1.0	0.002	1N	N08W34		3964			
18 Jan	0044	0058	0103	M1.7	0.010	SN	N11W32		3964			
18 Jan	0300	0307	0315	M1.1	0.009	1N	N11W32		3964			
19 Jan	0328	0332	0336	M2.4	0.001				3964			

### ***Flare List***

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
13 Jan	0022	0031	0043	C1.7			3960
13 Jan	0205	0215	0248	C8.1	SF	N11W64	3947
13 Jan	0947	0958	1031	C2.5			3947
13 Jan	1507	1512	1520	C2.1			3959
13 Jan	1723	1733	1739	C2.0			3953
13 Jan	2005	2012	2017	C2.3			3948
14 Jan	0146	0154	0200	C3.4			3947
14 Jan	0521	0529	0541	C3.1			3947
14 Jan	0823	0835	0842	C3.3			3947
14 Jan	1017	1021	1028	C2.6			3959
14 Jan	1515	1527	1539	C6.2			3962
14 Jan	1539	1541	1601		SF	S10E78	3961
14 Jan	1606	1610	1621		SF	S10E78	3961
14 Jan	2012	2022	2028	C2.9	SF	S10E78	3961
14 Jan	2032	2036	2042	C2.9	SF	S10E76	3961
15 Jan	0731	0740	0748	C3.6			3962
15 Jan	0850	0856	0900	C6.3			3961
15 Jan	0920	0931	0941	C3.7			
15 Jan	1604	1614	1624	C2.9			3961



## *Flare List*

Date	Time			Optical			Rgn #
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	
15 Jan	2101	2105	2111	C3.5			
15 Jan	2251	2255	2259	C3.4			3962
15 Jan	2308	2312	2319	C3.8	SN	N24E04	3963
15 Jan	2329	2335	2338		SF	N04W11	
16 Jan	0252	0258	0303	C3.0			3964
16 Jan	0303	0307	0311	C3.7			3963
16 Jan	0505	0512	0519	C3.9			3964
16 Jan	0635	0642	0649	C4.2			3965
16 Jan	0719	0726	0738	C4.4			3964
16 Jan	B1031	U1031	A1044		SF	S11E54	3961
16 Jan	1118	1123	1127	C3.6	SF	N17E40	3959
16 Jan	1527	1535	1552	C3.8			3964
16 Jan	2004	2009	2024		SF	N08W19	3964
16 Jan	2028	2031	2035		SF	N06W17	3964
16 Jan	2250	2249	2258		SF	S09E44	3961
17 Jan	0040	0047	0051	C4.9			3964
17 Jan	0201	0211	0217	M1.3			3964
17 Jan	0248	0255	0302	C7.9			3964
17 Jan	0308	0320	0334	M1.1			3961
17 Jan	0415	0422	0427	C4.6			3964
17 Jan	0505	0506	A0509		SF	S10E45	3961
17 Jan	0512	0522	0530	C6.7			3961
17 Jan	0544	0553	0558	C6.5			3961
17 Jan	0746	0756	0805	C4.5			3961
17 Jan	0910	0919	0923	M2.0			3964
17 Jan	1100	1109	1119	C3.2			3964
17 Jan	1119	1137	1149	M1.5			3964
17 Jan	1227	1232	1241	C3.6			3964
17 Jan	1241	1247	1257	C3.7			3961
17 Jan	1257	1300	1309	C4.0			3964
17 Jan	1324	1335	1339	M7.4			3964
17 Jan	1501	1511	1557	C5.7			3964
17 Jan	1614	1622	1627	C9.0	SF	N07W29	3964
17 Jan	1734	1736	1741		SF	N07W33	3964
17 Jan	1754	1754	1815	C3.6	SF	N08W32	3964
17 Jan	1817	1823	1830	C6.9	SF	N07W34	3964
17 Jan	1842	1850	1904	M2.1	SN	N08W33	3964
17 Jan	1934	1940	1941		SF	N07W32	3964



## *Flare List*

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
17 Jan	1944	1949	1955	M1.8	SF	N07W32	3964
17 Jan	1959	2001	2002	M1.1	SF	N06W29	3964
17 Jan	2022	2030	2038	C7.0	SF	N08W33	3964
17 Jan	2057	2100	2105	C4.0			3964
17 Jan	2144	2151	2200	C3.2			3964
17 Jan	2159	2203	2223	M1.0	1N	N08W34	3964
17 Jan	2320	2341	A2359		SF	S10E35	3961
17 Jan	2330	2344	0004	C5.3	SF	S10E35	3961
18 Jan	0044	0058	0103	M1.7	SN	N11W32	3964
18 Jan	0222	0231	0241	C8.8	SF	S10E35	3961
18 Jan	0241	0252	0256	C8.4			3961
18 Jan	0300	0307	0315	M1.1	1N	N11W32	3964
18 Jan	0304	0307	0307		SF	S10E35	3961
18 Jan	0312	0312	0315		SF	S10E35	3961
18 Jan	0315	0315	0323		SF	S10E35	3961
18 Jan	0635	0643	0648	C5.0			3959
18 Jan	0749	0755	0800	C3.6			3961
18 Jan	0833	0836	0842	C8.5			3964
18 Jan	1053	1058	1104	C2.9			3959
18 Jan	1104	1111	1116	C4.7			3959
18 Jan	1143	1147	1152	C5.1			3964
18 Jan	1304	1311	1320	C5.0			3964
18 Jan	1435	1438	1442	C6.1			3964
18 Jan	1545	1550	1556	C6.9	1N	N08W44	3964
18 Jan	1836	1842	1848	C2.6			
18 Jan	2224	2227	2227		SF	S18W56	
18 Jan	2308	2310	2317		SF	S18W56	
18 Jan	2323	2323	2325		SF	S09E21	3961
19 Jan	0010	0018	0025	C3.0			3964
19 Jan	0158	0203	0210	C2.0			3968
19 Jan	0210	0214	0219	C2.1			3964
19 Jan	0310	0315	0319	C2.7			3964
19 Jan	0328	0332	0336	M2.4			3964
19 Jan	0536	0543	0548	C3.4			3964
19 Jan	0723	0730	0734	C2.8			3961
19 Jan	0808	0813	0819	C1.9			3959
19 Jan	B1130	U1141	A1154		SF	S20W66	3968
19 Jan	1405	1415	1420	C4.9			3964



### *Flare List*

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
19 Jan	1658	1708	1712	C8.2	SN	N22W11	3959
19 Jan	1945	1954	1959	C2.4	SF	S08E08	3961
19 Jan	1959	2010	2028	C2.8			3965
19 Jan	2101	2109	2115	C5.1			3961
19 Jan	2323	2335	2341	C3.4			





## Region Summary

Date	Location		Sunspot Characteristics					Flares							
	Lat CMD	Helio	Area 10 <sup>-6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
		Lon						C	M	X	S	1	2	3	4
Region 3945															
01 Jan	S10E60	4	170	11	Eai	6	B	1				2			
02 Jan	S09E46	4	310	12	Eki	12	BG					1			
03 Jan	S10E33	4	350	9	Dki	15	BG								
04 Jan	S10E19	5	160	9	Dai	16	BG								
05 Jan	S09E05	6	80	8	Cai	12	B								
06 Jan	S09W10	8	80	3	Cai	5	B	1				1			
07 Jan	S09W23	6	40	2	Cao	6	B	1							
08 Jan	S10W37	8	30	3	Cro	6	B	1				1			
09 Jan	S10W49	7	20	2	Cro	4	B								
10 Jan	S07W59	6	20	4	Bxo	2	B	1							
11 Jan	S07W73	352	plage												
12 Jan	S07W86	5	plage												
								6	0	0	5	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 6

### Region 3947

02 Jan	N10E71	339	100	5	Dao	4	BG	3			1				
03 Jan	N11E57	340	240	5	Dac	8	BD	4	3	2	2	3			
04 Jan	N10E42	342	310	6	Dkc	10	BGD	4	3	1	6	2			
05 Jan	N11E29	342	230	11	Eac	12	BGD	2	4		8		2		
06 Jan	N11E17	341	290	12	Ehc	17	BGD	9	3		8	2			
07 Jan	N12E03	342	360	12	Eki	19	BGD	3			1				
08 Jan	N12W09	340	370	13	Ekc	12	BGD	3			2				
09 Jan	N12W22	340	320	13	Ekc	23	BG	5	1						
10 Jan	N13W37	342	250	10	Dko	15	BG	4	1		4	1			
11 Jan	N11W50	341	250	11	Dao	11	BG	1							
12 Jan	N11W63	342	240	9	Dao	7	BG								
13 Jan	N11W77	343	250	10	Dho	7	BD	2			1				
14 Jan	N11W92	343	200	10	Dao	7	B	3							
								43	15	3	33	8	2	0	0

Crossed West Limb.

Absolute heliographic longitude: 342



### *Region Summary - continued*

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

#### *Region 3948*

02 Jan	N23E36	14	10	1	Axx	1	A								
03 Jan	N16E33	4	10	2	Bxo	2	B								
04 Jan	N16E19	5	5	1	Axx	1	A								
05 Jan	N16E05	6	10	2	Bxo	1	B								
06 Jan	N16W09	7	10	4	Bxo	2	B								
07 Jan	N16W23	8	10	4	Bxo	2	B								
08 Jan	N17W40	11	10	1	Axx	1	A								
09 Jan	N16W54	12	10	1	Axx	1	A								
10 Jan	N15W67	12	10	1	Hsx	1	A								
11 Jan	N14W80	12	10	1	Axx	1	A	1							
12 Jan	N14W94	13	plage												
								1	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 6

#### *Region 3950*

04 Jan	S18E64	320	100	2	Hsx	1	A								
05 Jan	S18E49	322	40	1	Hsx	1	A								
06 Jan	S18E36	322	60	1	Hsx	1	A								
07 Jan	S18E22	323	40	1	Hsx	1	A								
08 Jan	S18E09	322	70	3	Cso	3	B	2							
09 Jan	S18W05	323	60	3	Cso	3	B								
10 Jan	S15W18	323	40	3	Cso	3	B								
11 Jan	S15W32	324	20	1	Hax	1	A								
12 Jan	S18W45	324	10	1	Axx	2	A								
13 Jan	S18W59	325	10	1	Axx	1	A								
14 Jan	S18W72	324	10	1	Axx	1	A								
15 Jan	S18W86	325	plage												
								2	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 323



### *Region Summary - continued*

Date	Location	Sunspot Characteristics						Flares								
	Lat CMD	Helio	Area 10 <sup>-6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical					
		Lon						C	M	X	S	1	2	3	4	
Region 3951																
04 Jan	S14E25	359	50	1	Hsx	1	A									
05 Jan	S13E11	360	20	1	Hrx	2	A									
06 Jan	S14W01	359	20	2	Hrx	1	A									
07 Jan	S13W15	359	20	1	Hsx	1	A	1				1				
08 Jan	S13W28	359	plage					1				1				
09 Jan	S15W41	359	40	4	Bxo	3	B									
10 Jan	S15W54	359	plage					1				1				
11 Jan	S15W68	360	plage													
12 Jan	S15W82	1	plage					1								
								4	0	0	0	3	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 359

#### **Region 3953**

08 Jan	N20W18	348	10	5	Bxi	6	B								
09 Jan	N20W32	350	90	5	Cri	6	B								
10 Jan	N22W46	351	90	6	Dao	5	B								
11 Jan	N22W61	353	90	6	Dso	6	B								
12 Jan	N22W73	352	90	7	Dso	3	B								
13 Jan	N21W87	353	90	7	Dso	3	B	1							
								1	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 348

#### **Region 3955**

10 Jan	S29W52	357	20	3	Bxo	2	B								
11 Jan	S30W65	357	10	1	Axx	1	A								
12 Jan	S30W79	358	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 357



### *Region Summary - continued*

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

#### *Region 3956*

10 Jan	N10E25	280	220	6	Dao	7	B								
11 Jan	N10E11	281	200	6	Dao	5	B	1							
12 Jan	N06W02	281	250	8	Dao	12	B								
13 Jan	N06W15	281	190	9	Dao	7	B								
14 Jan	N06W28	280	160	9	Dao	7	B								
15 Jan	N05W42	281	160	8	Cao	5	B								
16 Jan	N04W57	283	80	1	Hax	1	A								
17 Jan	N04W71	284	90	1	Hax	2	A								
18 Jan	N04W85	284	20	1	Hax	1	A								
								1	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 281

#### *Region 3957*

12 Jan	N21W40	319	20	4	Bxo	3	B								
13 Jan	N21W53	319	20	9	Cro	3	B								
14 Jan	N19W70	322	10	1	Axx	1	A								
15 Jan	N19W84	323	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 319

#### *Region 3958*

12 Jan	S06E49	230	5	1	Axx	1	A								
13 Jan	S06E35	231	plage												
14 Jan	S06E21	231	plage												
15 Jan	S06E07	232	plage												
16 Jan	S06W08	234	plage												
17 Jan	S06W23	236	plage												
18 Jan	S06W37	237	plage												
19 Jan	S06W51	238	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 232



### *Region Summary - continued*

Date	Location	Sunspot Characteristics						Flares							
	Lat CMD	Helio	Area 10 <sup>-6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
		Lon						C	M	X	S	1	2	3	4
Region 3959															
12 Jan	N19E72	207	150	3	Hsx	1	A								
13 Jan	N18E61	205	360	5	Cho	3	B	1							
14 Jan	N18E47	205	400	7	Dko	5	BG	1							
15 Jan	N18E35	204	400	6	Dki	10	BGD								
16 Jan	N18E26	200	430	14	Dki	10	BGD	1			1				
17 Jan	N18E12	201	550	14	Eko	14	BG								
18 Jan	N19W01	201	560	13	Eko	10	B	3							
19 Jan	N18W18	205	500	6	Cko	8	B	2			1				
								8	0	0	2	0	0	0	

Still on Disk.

Absolute heliographic longitude: 201

#### **Region 3960**

12 Jan	S11W65	345	plage					1							
13 Jan	S11W81	347	50	6	Cao	6	B	1							
14 Jan	S11W93	345	30	3	Hsx	1	A								
								2	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 345

#### **Region 3961**

14 Jan	S09E70	181	180	6	Dao	3	B	2			4				
15 Jan	S09E58	181	220	13	Eac	15	BG	2							
16 Jan	S09E45	181	340	11	Eki	15	BG				2				
17 Jan	S09E32	181	600	11	Eki	25	BG	5	1		2				
18 Jan	S09E19	181	720	12	Ekc	22	BGD	3			6				
19 Jan	S09E06	181	780	13	Ekc	22	BGD	3			1				
								15	1	0	15	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 181



### *Region Summary - continued*

	Location	Sunspot Characteristics						Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10 <sup>-6</sup> hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
Region 3962															
14 Jan	N17E82	170	40	3	Hsx	1	A	1							
15 Jan	N17E68	171	80	11	Eai	6	BGD	2							
16 Jan	N17E54	172	120	10	Dso	4	B								
17 Jan	N17E41	172	120	9	Dso	6	B								
18 Jan	N18E28	172	100	9	Cso	6	B								
19 Jan	N18E14	173	110	8	Cso	5	B								
								3	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 173

<b>Region 3963</b>															
15 Jan	N24E06	233	20	5	Cao	5	B	1			1				
16 Jan	N24W08	234	plage					1							
17 Jan	N24W22	235	plage												
18 Jan	N24W36	236	plage												
19 Jan	N24W50	237	plage												
								2	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 233

<b>Region 3964</b>															
16 Jan	N07W22	248	180	7	Dai	14	B	4			2				
17 Jan	N06W34	247	475	8	Dki	17	BG	13	8		9	1			
18 Jan	N06W47	247	450	9	Dki	14	BGD	5	2		1	2			
19 Jan	N06W62	249	400	12	Eki	12	BG	5	1						
								27	11	0	12	3	0	0	0

Still on Disk.

Absolute heliographic longitude: 248

<b>Region 3965</b>															
16 Jan	N15E67	159	90	3	Hsx	1	A	1							
17 Jan	N15E53	160	100	3	Hsx	1	A								
18 Jan	N14E39	161	140	3	Cso	3	B								
19 Jan	N14E30	157	140	3	Cso	3	B	1							
								2	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 157



### ***Region Summary - continued***

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

#### ***Region 3966***

17 Jan	N04E08	205	10	3	Bxo	2	B								
18 Jan	N04W06	206	plage												
19 Jan	N04W20	207	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 206

#### ***Region 3967***

17 Jan	S18E72	141	30	2	Hax	2	A								
18 Jan	S17E57	143	60	3	Dao	2	B								
19 Jan	S17E41	146	60	6	Dso	2	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 146

#### ***Region 3968***

19 Jan	S19W71	258	20	5	Bxo	6	B	1			1				
								1	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 258

#### ***Region 3969***

19 Jan	S06E59	128	20	5	Bxo	5	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 128



## ***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.  
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