

Space Weather Highlights
28 February - 06 March 2022

SWPC PRF 2427
07 March 2022

Solar activity ranged from very low to moderate levels throughout the week. The largest event of the period was an M2/1b flare observed at 02/1739 UTC from Region 2958 (N17, L=035, class/area=Bxo/60 on 03 Mar). Regions 2957 (S16, L=038, class/area=Dai/240 on 05 Mar) and 2960 (S20, L=335, class/area=Dki/450 on 05 Mar) were the most active regions throughout the week, but produced only C-flares. Multiple DSFs were detected during the summary period, however, none were expected to be Earth-directed.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 06 Mar, with normal to moderate levels observed throughout the remainder of the week.

Geomagnetic field activity reached active and minor (G1) storm levels on 05-06 Mar due to the influence of a series of negative polarity CH HSSs. Quiet and quiet to unsettled conditions were observed throughout the remainder of the summary period.

Space Weather Outlook
07 March - 02 April 2022

Solar activity is expected to be very low throughout the period, with C-flares likely and a chance for M-flares.

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 07-10, 20-23 Mar, and 02 Apr. Normal to moderate levels are expected throughout the remainder of the outlook period.

Geomagnetic field activity is expected to reach minor (G1) storm levels on 01-02 Apr, and active levels on 11-12, 19-21, and 31 Mar in response to multiple CH HSSs moving through geoeffective position. Quiet and quiet to unsettled conditions are expected to prevail 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 |
| 28 February | 99 | 65 | 170 | B1.7 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 01 March | 99 | 62 | 180 | B2.2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 02 March | 110 | 66 | 440 | B3.7 | 7 | 1 | 0 | 5 | 1 | 0 | 0 | 0 |
| 03 March | 111 | 92 | 570 | B3.2 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 04 March | 113 | 77 | 830 | B4.8 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 05 March | 120 | 95 | 830 | B4.3 | 6 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| 06 March | 116 | 82 | 670 | B3.5 | 4 | 0 | 0 | 3 | 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 | |
| | 28 February | 1.1e+05 | 4.2e+04 | 1.8e+06 |
| 01 March | 7.7e+04 | 4.3e+04 | 2.7e+06 | |
| 02 March | 6.5e+04 | 4.3e+04 | 3.1e+06 | |
| 03 March | 2.9e+05 | 4.3e+04 | 5.5e+06 | |
| 04 March | 1.6e+05 | 4.1e+04 | 3.6e+06 | |
| 05 March | 2.1e+05 | 4.1e+04 | 2.4e+06 | |
| 06 March | 2.3e+05 | 4.1e+04 | 1.2e+08 | |

Daily Geomagnetic Data

| Date | Middle Latitude Fredericksburg | | High Latitude College | | Estimated Planetary | |
|----------|-----------------------------------|-----------------|--------------------------|-----------------|------------------------|-----------------|
| | A | K-indices | A | K-indices | A | K-indices |
| | 28 February | 5 | 1-2-1-2-2-1-2-1 | 8 | 1-1-0-4-3-2-1-1 | 8 |
| 01 March | 6 | 1-1-2-2-3-1-2-1 | 18 | 1-1-5-5-4-2-2-1 | 8 | 2-2-3-2-2-1-2-2 |
| 02 March | 3 | 0-1-1-2-1-1-1-1 | 3 | 0-1-0-3-0-0-0-1 | 4 | 1-1-1-2-0-1-1-1 |
| 03 March | 3 | 0-0-0-1-2-1-2-2 | 2 | 0-0-0-0-1-1-1-1 | 5 | 1-1-0-1-1-1-2-3 |
| 04 March | 7 | 3-2-2-1-2-1-2-2 | 13 | 1-2-2-5-3-3-2-1 | 10 | 3-3-2-2-2-2-3-3 |
| 05 March | 19 | 3-2-2-4-4-4-3-4 | 42 | 2-2-3-6-7-5-4-3 | 27 | 4-2-2-4-5-4-5-5 |
| 06 March | 13 | 4-2-4-2-3-1-2-2 | 33 | 4-2-5-6-6-3-2-1 | 39 | 5-3-4-3-3-1-2-2 |

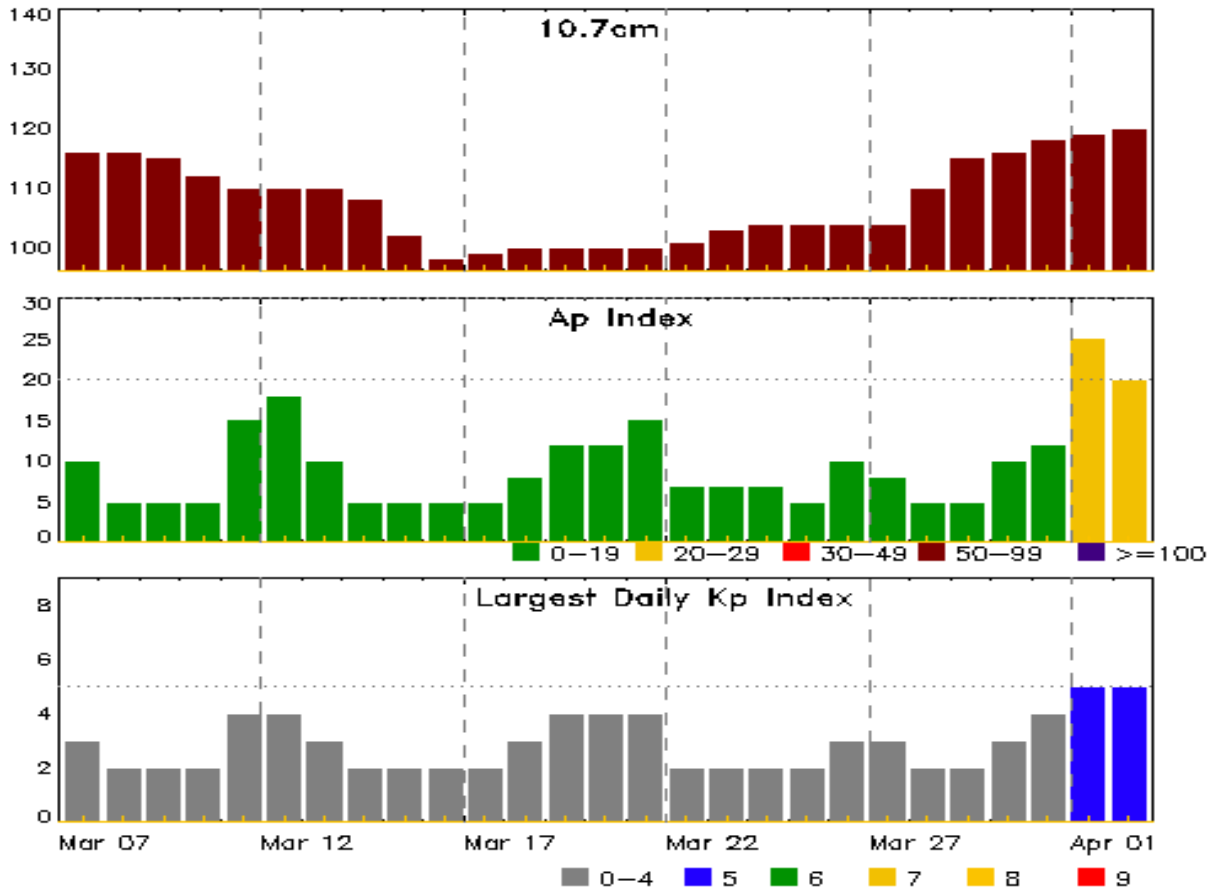


Alerts and Warnings Issued

| Date & Time of Issue UTC | Type of Alert or Warning | Date & Time of Event UTC |
|---|---|---|
| 03 Mar 0408 | ALERT: Type II Radio Emission | 02/1736 |
| 04 Mar 0304 | WARNING: Geomagnetic K = 4 | 04/0305 - 1200 |
| 05 Mar 0136 | WARNING: Geomagnetic K = 4 | 05/0135 - 1200 |
| 05 Mar 0257 | ALERT: Geomagnetic K = 4 | 05/0255 |
| 05 Mar 1120 | EXTENDED WARNING: Geomagnetic K = 4 | 05/0135 - 2359 |
| 05 Mar 1317 | WARNING: Geomagnetic K = 5 | 05/1315 - 2100 |
| 05 Mar 1501 | ALERT: Geomagnetic K = 5 | 05/1459 |
| 05 Mar 2032 | EXTENDED WARNING: Geomagnetic K = 5 | 05/1315 - 06/0600 |
| 05 Mar 2110 | ALERT: Geomagnetic K = 5 | 05/2059 |
| 05 Mar 2145 | ALERT: Geomagnetic K = 5 | 05/2144 |
| 05 Mar 2148 | EXTENDED WARNING: Geomagnetic K = 4 | 05/0135 - 06/1200 |
| 06 Mar 0242 | ALERT: Geomagnetic K = 5 | 06/0240 |
| 06 Mar 0516 | EXTENDED WARNING: Geomagnetic K = 5 | 05/1315 - 06/1200 |
| 06 Mar 1028 | EXTENDED WARNING: Geomagnetic K = 4 | 05/0135 - 06/2100 |
| 06 Mar 1308 | ALERT: Electron 2MeV Integral Flux \geq 1000pfu | 06/1250 |



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 |
|--------|----------------------|----------------------|---------------------|--------|----------------------|----------------------|---------------------|
| 07 Mar | 116 | 10 | 3 | 21 Mar | 100 | 15 | 4 |
| 08 | 116 | 5 | 2 | 22 | 101 | 7 | 2 |
| 09 | 115 | 5 | 2 | 23 | 103 | 7 | 2 |
| 10 | 112 | 5 | 2 | 24 | 104 | 7 | 2 |
| 11 | 110 | 15 | 4 | 25 | 104 | 5 | 2 |
| 12 | 110 | 18 | 4 | 26 | 104 | 10 | 3 |
| 13 | 110 | 10 | 3 | 27 | 104 | 8 | 3 |
| 14 | 108 | 5 | 2 | 28 | 110 | 5 | 2 |
| 15 | 102 | 5 | 2 | 29 | 115 | 5 | 2 |
| 16 | 98 | 5 | 2 | 30 | 116 | 10 | 3 |
| 17 | 99 | 5 | 2 | 31 | 118 | 12 | 4 |
| 18 | 100 | 8 | 3 | 01 Apr | 119 | 25 | 5 |
| 19 | 100 | 12 | 4 | 02 | 120 | 20 | 5 |
| 20 | 100 | 12 | 4 | | | | |



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 245 | Radio Flux 2695 | Intensity II | Intensity IV |
| 02 Mar | 1731 | 1739 | 1747 | M2.0 | 0.011 | 1B | N15E29 | | 2958 | 440 | | 3 |

Flare List

| Date | Time | | | X-ray Class | Optical | | |
|--------|-------|------|------|-------------|------------|------------------|-------|
| | Begin | Max | End | | Imp/ Brtns | Location Lat CMD | Rgn # |
| 28 Feb | 0302 | 0309 | 0316 | B2.4 | | | |
| 28 Feb | 0805 | 0837 | 0902 | C1.2 | | | |
| 28 Feb | 0805 | 0837 | 1517 | C1.3 | | | |
| 28 Feb | 0829 | 0833 | 0847 | | SF | S28E65 | |
| 28 Feb | 0857 | 0858 | 0859 | C3.1 | SF | S27E62 | |
| 28 Feb | 1518 | 1523 | 1527 | B5.5 | | | |
| 28 Feb | 1945 | 1950 | 1954 | B3.6 | | | |
| 28 Feb | 2007 | 2013 | 2017 | B3.0 | | | |
| 28 Feb | 2258 | 2308 | 2311 | B3.0 | | | 2956 |
| 28 Feb | 2311 | 2330 | 2356 | B6.1 | | | 2958 |
| 01 Mar | 0220 | 0230 | 0236 | B2.9 | SF | S14E46 | 2957 |
| 01 Mar | 0741 | 0805 | 0842 | B3.8 | | | |
| 01 Mar | 1050 | 1059 | 1104 | B3.4 | | | |
| 01 Mar | 1122 | 1133 | 1141 | B3.5 | | | |
| 01 Mar | 1259 | 1308 | 1312 | B6.7 | SF | S19E44 | 2957 |
| 01 Mar | 1704 | 1717 | 1731 | B3.6 | | | |
| 01 Mar | 1747 | 1803 | 1820 | B7.2 | | | |
| 01 Mar | 1932 | 1947 | 2011 | B7.8 | | | |
| 01 Mar | 2147 | 2157 | 2204 | B6.0 | | | |
| 01 Mar | 2242 | 2249 | 2253 | B5.6 | | | 2957 |
| 01 Mar | 2310 | 2324 | 2332 | B8.6 | | | |
| 02 Mar | 0121 | 0132 | 0139 | | SF | S15E37 | 2957 |
| 02 Mar | 0320 | 0321 | 0330 | | SF | S14E28 | 2957 |
| 02 Mar | 0405 | 0415 | 0420 | C1.9 | | | |
| 02 Mar | 0709 | 0713 | 0719 | B4.5 | | | 2957 |
| 02 Mar | 0742 | 0750 | 0755 | B6.5 | | | 2957 |
| 02 Mar | 0819 | 0821 | 0823 | | SF | S16E34 | 2957 |
| 02 Mar | 0846 | 0847 | 0850 | | SF | S16E33 | 2957 |
| 02 Mar | 0912 | 0942 | 1008 | C3.0 | SF | S18E33 | 2957 |
| 02 Mar | 1133 | 1143 | 1150 | C1.0 | | | 2958 |



Flare List

| Date | Time | | | X-ray Class | Optical | | Rgn # |
|--------|-------|------|------|----------------|---------------|---------------------|----------|
| | Begin | Max | End | | Imp/ Brtns | Location Lat CMD | |
| 02 Mar | 1253 | 1301 | 1308 | C1.0 | | | |
| 02 Mar | 1604 | 1610 | 1621 | B4.9 | | | |
| 02 Mar | 1659 | 1707 | 1713 | C1.4 | | | |
| 02 Mar | 1731 | 1739 | 1747 | M2.0 | 1B | N15E29 | 2958 |
| 02 Mar | 1924 | 1934 | 1942 | C2.0 | | | 2960 |
| 02 Mar | 2026 | 2034 | 2041 | B7.7 | | | 2960 |
| 02 Mar | 2139 | 2148 | 2155 | B9.8 | | | 2960 |
| 02 Mar | 2320 | 2324 | 2328 | C1.0 | | | 2960 |
| 03 Mar | 0325 | 0333 | 0337 | B5.7 | | | 2959 |
| 03 Mar | 0624 | 0635 | 0647 | B6.1 | | | 2960 |
| 03 Mar | 0838 | 0845 | 0852 | B5.6 | | | 2959 |
| 03 Mar | 1627 | 1630 | 1637 | B7.5 | | | 2960 |
| 03 Mar | 1723 | 1727 | 1734 | B6.6 | | | 2960 |
| 03 Mar | 2028 | 2028 | 2029 | | SF | S22E76 | 2960 |
| 03 Mar | 2039 | 2048 | 2102 | C1.2 | | | |
| 03 Mar | 2102 | 2108 | 2113 | C1.0 | | | 2960 |
| 03 Mar | 2144 | 2155 | 2206 | C3.3 | | | 2958 |
| 03 Mar | 2339 | 2353 | 0008 | B8.4 | | | |
| 04 Mar | 0030 | 0045 | 0058 | C1.7 | | | |
| 04 Mar | 0242 | 0246 | 0253 | B9.1 | | | |
| 04 Mar | 0434 | 0442 | 0447 | | SF | S21E73 | 2960 |
| 04 Mar | 0622 | 0634 | 0641 | C1.1 | SF | S20E71 | 2960 |
| 04 Mar | 1455 | 1501 | 1509 | B7.3 | | | |
| 04 Mar | 1800 | 1811 | 1815 | B7.6 | | | |
| 04 Mar | 1815 | 1819 | 1823 | B8.3 | | | |
| 04 Mar | 1928 | 1936 | 1941 | B7.5 | | | 2960 |
| 04 Mar | 1946 | 1955 | 2001 | B8.0 | | | |
| 04 Mar | 2114 | 2121 | 2130 | B8.0 | | | 2960 |
| 04 Mar | 2135 | 2140 | 2144 | B9.3 | | | 2957 |
| 04 Mar | 2242 | 2256 | 2302 | B9.7 | | | 2960 |
| 04 Mar | 2311 | 2315 | 2326 | B7.9 | | | 2960 |
| 05 Mar | 0347 | 0354 | 0359 | B8.2 | SF | S20E64 | 2960 |
| 05 Mar | 0509 | 0526 | 0544 | B8.4 | | | 2962 |
| 05 Mar | 0551 | 0601 | 0619 | B8.2 | | | 2962 |
| 05 Mar | 0626 | 0632 | 0642 | | SF | S20E64 | 2961 |
| 05 Mar | 0756 | 0803 | 0810 | B5.3 | SF | S20E64 | 2960 |
| 05 Mar | 1511 | 1522 | 1534 | C1.1 | SF | S31W02 | |
| 05 Mar | 1534 | 1540 | 1544 | C1.0 | | | 2962 |



Flare List

| Date | Time | | | X-ray Class | Optical | | Rgn # |
|--------|-------|------|------|----------------|---------------|---------------------|----------|
| | Begin | Max | End | | Imp/ Brtns | Location Lat CMD | |
| 05 Mar | 1752 | 1802 | 1810 | B8.6 | | | 2962 |
| 05 Mar | 1824 | 1836 | 1843 | C1.7 | | | 2962 |
| 05 Mar | 1956 | 2022 | 2044 | C2.7 | | | 2962 |
| 05 Mar | 2127 | 2133 | 2142 | B9.4 | | | 2962 |
| 05 Mar | 2202 | 2207 | 2211 | C1.0 | | | 2960 |
| 05 Mar | 2349 | 0001 | 0011 | C1.3 | SF | S15W27 | 2961 |
| 06 Mar | 0220 | 0237 | 0253 | C2.6 | SF | N27E58 | 2962 |
| 06 Mar | 0441 | 0447 | 0451 | B5.2 | | | |
| 06 Mar | 0517 | 0529 | 0538 | C1.0 | | | 2962 |
| 06 Mar | 0755 | 0806 | 0820 | B5.6 | | | |
| 06 Mar | 0959 | 1017 | 1043 | C1.0 | | | 2962 |
| 06 Mar | 1147 | 1155 | 1159 | B5.4 | | | |
| 06 Mar | 1214 | 1221 | 1228 | B5.3 | | | 2957 |
| 06 Mar | 1243 | 1255 | 1305 | C1.5 | SF | S20W22 | 2957 |
| 06 Mar | 2023 | 2030 | 2038 | B5.3 | | | 2957 |
| 06 Mar | 2128 | 2140 | 2158 | B7.9 | | | 2962 |



Region Summary

| 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 |

Region 2652

| | | | | | | | | | | | | | | | | | |
|--------|--------|----|-------|---|-----|---|---|--|--|--|--|--|--|--|--|--|--|
| 20 Apr | N13E60 | 54 | 10 | 1 | Hrx | 1 | A | | | | | | | | | | |
| 21 Apr | N13E45 | 56 | 10 | 1 | Hrx | 1 | A | | | | | | | | | | |
| 22 Apr | N13E31 | 57 | plage | | | | | | | | | | | | | | |
| 23 Apr | N14E17 | 57 | 10 | 3 | Bxo | 3 | B | | | | | | | | | | |
| 24 Apr | N13E01 | 60 | 10 | 2 | Bxo | 3 | B | | | | | | | | | | |
| 25 Apr | N13W13 | 61 | 10 | | Axx | 1 | A | | | | | | | | | | |
| 26 Apr | N14W26 | 61 | 10 | 1 | Axx | 3 | A | | | | | | | | | | |
| 27 Apr | N14W40 | 62 | plage | | | | | | | | | | | | | | |
| 28 Apr | N14W54 | 62 | plage | | | | | | | | | | | | | | |
| 29 Apr | N14W68 | 63 | plage | | | | | | | | | | | | | | |
| 30 Apr | N14W82 | 64 | plage | | | | | | | | | | | | | | |

0 0 0 0 0 0 0 0

Crossed West Limb.

Absolute heliographic longitude: 60

Region 2952

| | | | | | | | | | | | | | | | | | |
|--------|--------|-----|-------|---|-----|---|---|--|--|--|--|--|--|--|--|--|--|
| 17 Feb | S24E67 | 164 | 20 | 1 | Hrx | 1 | A | | | | | | | | | | |
| 18 Feb | S24E55 | 162 | 10 | 1 | Axx | 1 | A | | | | | | | | | | |
| 19 Feb | S24E42 | 162 | 10 | 1 | Axx | 1 | A | | | | | | | | | | |
| 20 Feb | S24E29 | 162 | 10 | 1 | Axx | 1 | A | | | | | | | | | | |
| 21 Feb | S23E16 | 161 | 10 | 1 | Axx | 1 | A | | | | | | | | | | |
| 22 Feb | S24E01 | 163 | plage | | | | | | | | | | | | | | |
| 23 Feb | S24W13 | 165 | plage | | | | | | | | | | | | | | |
| 24 Feb | S24W27 | 165 | plage | | | | | | | | | | | | | | |
| 25 Feb | S24W41 | 166 | plage | | | | | | | | | | | | | | |
| 26 Feb | S24W55 | 167 | plage | | | | | | | | | | | | | | |
| 27 Feb | S24W69 | 168 | plage | | | | | | | | | | | | | | |
| 28 Feb | S24W83 | 169 | plage | | | | | | | | | | | | | | |

0 0 0 0 0 0 0 0

Crossed West Limb.

Absolute heliographic longitude: 163



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 |

Region 2953

| | | | | | | | | | | | | | | | | | |
|--------|--------|-----|-------|---|-----|---|---|--|---|---|---|---|---|---|---|---|---|
| 19 Feb | N18E37 | 167 | 10 | 5 | Bxo | 3 | B | | | | | | | | | | |
| 20 Feb | N17E22 | 169 | 20 | 6 | Bxo | 3 | B | | | | | | | | | | |
| 21 Feb | N18E09 | 167 | 10 | 5 | Bxo | 5 | B | | | | | | | | | | |
| 22 Feb | N17W05 | 169 | 30 | 6 | Cro | 6 | B | | | | | | | | | | |
| 23 Feb | N17W18 | 169 | 10 | 6 | Bxo | 5 | B | | | | | | | | | | |
| 24 Feb | N18W29 | 166 | plage | | | | | | | | | | | | | | |
| 25 Feb | N18W43 | 168 | plage | | | | | | | | | | | | | | |
| 26 Feb | N18W57 | 169 | plage | | | | | | | | | | | | | | |
| 27 Feb | N18W71 | 170 | plage | | | | | | | | | | | | | | |
| 28 Feb | N18W85 | 171 | plage | | | | | | | | | | | | | | |
| | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Crossed West Limb.

Absolute heliographic longitude: 169

Region 2954

| | | | | | | | | | | | | | | | | | |
|--------|--------|-----|-----|---|-----|---|---|--|---|---|---|---|---|---|---|---|---|
| 20 Feb | N18E72 | 119 | 60 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 21 Feb | N17E58 | 118 | 120 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 22 Feb | N18E45 | 118 | 100 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 23 Feb | N17E31 | 119 | 110 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 24 Feb | N17E18 | 119 | 70 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 25 Feb | N17E05 | 120 | 70 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 26 Feb | N17W06 | 118 | 80 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 27 Feb | N17W20 | 119 | 90 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 28 Feb | N17W34 | 119 | 70 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 01 Mar | N18W44 | 116 | 70 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 02 Mar | N16W58 | 117 | 100 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 03 Mar | N17W73 | 118 | 110 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 04 Mar | N18W86 | 119 | 50 | 1 | Hsx | 1 | A | | | | | | | | | | |
| | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Crossed West Limb.

Absolute heliographic longitude: 120



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 2955 | | | | | | | | | | | | | | | | | | |
| 21 Feb | N13E70 | | 106 | 50 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 22 Feb | N14E56 | | 107 | 150 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 23 Feb | N15E44 | | 106 | 140 | 4 | Cso | 2 | B | | | | | | | | | | |
| 24 Feb | N14E30 | | 107 | 130 | 3 | Cso | 2 | B | | | | 1 | | | | | | |
| 25 Feb | N15E17 | | 108 | 90 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 26 Feb | N14E04 | | 108 | 100 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 27 Feb | N15W10 | | 109 | 110 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 28 Feb | N15W25 | | 109 | 70 | 2 | Hsx | 1 | A | | | | | | | | | | |
| 01 Mar | N16W34 | | 105 | 50 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 02 Mar | N15W48 | | 107 | 100 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 03 Mar | N15W60 | | 106 | 100 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 04 Mar | N17W74 | | 107 | 70 | 1 | Hsx | 1 | A | | | | | | | | | | |
| 05 Mar | N14W89 | | 109 | 60 | 1 | Hsx | 1 | A | | | | | | | | | | |
| | | | | | | | | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

Crossed West Limb.
 Absolute heliographic longitude: 108

| | | | | | | | | | | | | | | | | | | |
|--------------------|--------|--|----|-------|---|-----|---|---|--|---|---|---|---|---|---|---|---|---|
| Region 2956 | | | | | | | | | | | | | | | | | | |
| 27 Feb | N25E19 | | 80 | 10 | 1 | Axx | 2 | A | | | | | | | | | | |
| 28 Feb | N25E06 | | 79 | 10 | 4 | Bxo | 4 | B | | | | | | | | | | |
| 01 Mar | N27W09 | | 81 | 10 | 2 | Bxo | 3 | B | | | | | | | | | | |
| 02 Mar | N25W23 | | 82 | 10 | 2 | Axx | 2 | A | | | | | | | | | | |
| 03 Mar | N25W37 | | 83 | plage | | | | | | | | | | | | | | |
| 04 Mar | N25W51 | | 84 | plage | | | | | | | | | | | | | | |
| 05 Mar | N25W65 | | 85 | plage | | | | | | | | | | | | | | |
| 06 Mar | N25W79 | | 86 | plage | | | | | | | | | | | | | | |
| | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Still on Disk.
 Absolute heliographic longitude: 79



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 2957 | | | | | | | | | | | | | | | | | | | | |
| 27 Feb | S13E57 | | 42 | 10 | 3 | Bxo | 4 | B | 1 | | | | | | | | | | | |
| 28 Feb | S16E49 | | 35 | 10 | 3 | Bxo | 6 | B | | | | | | | | | | | | |
| 01 Mar | S12E34 | | 37 | 30 | 3 | Cro | 5 | B | | | | | 2 | | | | | | | |
| 02 Mar | S15E07 | | 52 | 180 | 12 | Eai | 10 | BG | 1 | | | | 5 | | | | | | | |
| 03 Mar | S15E13 | | 33 | 140 | 8 | Dso | 7 | B | | | | | | | | | | | | |
| 04 Mar | S14W04 | | 37 | 230 | 11 | Dao | 13 | B | | | | | | | | | | | | |
| 05 Mar | S16W18 | | 38 | 240 | 10 | Dai | 14 | B | | | | | | | | | | | | |
| 06 Mar | S15W31 | | 38 | 200 | 11 | Eai | 13 | B | 1 | | | | 1 | | | | | | | |
| | | | | | | | | | 3 | 0 | 0 | | 8 | 0 | 0 | 0 | 0 | | | |

Still on Disk.

Absolute heliographic longitude: 37

| | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------|--|----|-------|---|-----|---|---|---|---|---|--|---|---|---|---|---|--|--|--|
| Region 2958 | | | | | | | | | | | | | | | | | | | | |
| 28 Feb | N16E50 | | 34 | 10 | 2 | Cro | 3 | B | | | | | | | | | | | | |
| 01 Mar | N18E37 | | 34 | 20 | 3 | Cro | 2 | B | | | | | | | | | | | | |
| 02 Mar | N20E24 | | 34 | 50 | 2 | Bxo | 2 | B | 1 | 1 | | | 1 | | | | | | | |
| 03 Mar | N17E11 | | 35 | 60 | 2 | Bxo | 2 | B | 1 | | | | | | | | | | | |
| 04 Mar | N17W03 | | 36 | plage | | | | | | | | | | | | | | | | |
| 05 Mar | N17W15 | | 35 | 20 | 2 | Bxo | 3 | B | | | | | | | | | | | | |
| 06 Mar | N17W29 | | 36 | 10 | 1 | Axx | 1 | A | | | | | | | | | | | | |
| | | | | | | | | | 2 | 1 | 0 | | 0 | 1 | 0 | 0 | 0 | | | |

Still on Disk.

Absolute heliographic longitude: 36

| | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------|--|----|-------|---|-----|---|---|---|---|---|--|---|---|---|---|---|--|--|--|
| Region 2959 | | | | | | | | | | | | | | | | | | | | |
| 03 Mar | S19E23 | | 23 | 10 | 1 | Axx | 1 | A | | | | | | | | | | | | |
| 04 Mar | S19E09 | | 24 | plage | | | | | | | | | | | | | | | | |
| 05 Mar | S19W05 | | 25 | plage | | | | | | | | | | | | | | | | |
| 06 Mar | S19W19 | | 26 | plage | | | | | | | | | | | | | | | | |
| | | | | | | | | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | | |

Still on Disk.

Absolute heliographic longitude: 25



Region Summary - continued

| 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 2960 | | | | | | | | | | | | | | | | | | | | |
| 02 Mar | S21E81 | | 339 | plage | | | | | | | | 2 | | | | | | | | |
| 03 Mar | S21E67 | | 339 | 110 | 5 | Dao | 4 | B | 1 | | | | 1 | | | | | | | |
| 04 Mar | S21E57 | | 336 | 430 | 6 | Dho | 5 | B | 1 | | | | 2 | | | | | | | |
| 05 Mar | S20E45 | | 335 | 450 | 10 | Dki | 8 | B | 1 | | | | 2 | | | | | | | |
| 06 Mar | S20E31 | | 336 | 420 | 10 | Dhi | 9 | B | | | | | | | | | | | | |
| | | | | | | | | | 5 | 0 | 0 | | 5 | 0 | 0 | 0 | 0 | 0 | 0 | |

Still on Disk.
Absolute heliographic longitude: 336

| | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------|--|----|----|---|-----|---|---|---|---|---|--|---|---|---|---|---|---|---|--|
| Region 2961 | | | | | | | | | | | | | | | | | | | | |
| 03 Mar | S13E05 | | 41 | 40 | 5 | Cao | 6 | B | | | | | | | | | | | | |
| 04 Mar | S13W15 | | 48 | 50 | 5 | Cao | 7 | B | | | | | | | | | | | | |
| 05 Mar | S14W29 | | 49 | 30 | 6 | Cro | 7 | B | 1 | | | | 1 | | | | | | | |
| 06 Mar | S14W43 | | 50 | 10 | 1 | Axx | 1 | A | | | | | 1 | | | | | | | |
| | | | | | | | | | 1 | 0 | 0 | | 2 | 0 | 0 | 0 | 0 | 0 | 0 | |

Still on Disk.
Absolute heliographic longitude: 41

| | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------|--|-----|----|---|-----|---|---|---|---|---|--|---|---|---|---|---|---|---|--|
| Region 2962 | | | | | | | | | | | | | | | | | | | | |
| 05 Mar | N26E55 | | 325 | 30 | 2 | Bxo | 2 | B | 3 | | | | | | | | | | | |
| 06 Mar | N26E43 | | 324 | 30 | 4 | Cro | 8 | B | 3 | | | | 1 | | | | | | | |
| | | | | | | | | | 6 | 0 | 0 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |

Still on Disk.
Absolute heliographic longitude: 324



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. Comments and suggestions are welcome SWPC.Webmaster@noaa.gov

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