

Daily Space Weather Summary (SUPARCO)

Wednesday, March 08, 2023, 12:01 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

| | | | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Critical Frequency of F2 layer (foF2) | 12.2 MHz | | | | | | | |
| Virtual Height of F2 layer (h`F2) | 330 km | | | | | | | |
| Total Electron Content (TEC) | 48 TECU | | | | | | | |
| Maximum Usable Frequency (MUF) and Optimum Traffic Frequency (FOT) for various distances | | | | | | | | |
| Distance (Km) | 100 | 200 | 400 | 600 | 800 | 1000 | 1500 | 3000 |
| MUF (MHz) | 12.3 | 12.7 | 14.0 | 15.9 | 18.0 | 20.3 | 25.6 | 31.2 |
| FOT (MHz) | 10.5 | 10.8 | 11.9 | 13.5 | 15.3 | 17.3 | 21.8 | 26.5 |

Local HF conditions are enhanced as compared to the predicted monthly median MUF.

LOCAL GEOMAGNETIC CONDITIONS

| | |
|----------------------------------|----------------|
| K-index | 2 (Quiet) |
| Total Field (F) (Son/Isb) | 45523/50033 nT |

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

| | |
|---|--|
| Sunspot Number (SN) | 191 |
| Solar radio flux (F10.7) | 188 sfu |
| Solar wind speed | 472.3 km/s (varied in the past 24 hrs between 440 & 681 km/s) |
| Solar x-ray flares | C1.1 (max flare in the past 24-hr: C3, 0820 UT) |
| Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz) | +3.7 nT (varied in the past 12 hrs between +2.8 nT & +4.0 nT) -1.8 nT (varied in the past 12 hrs between -2.7 nT & +2.3 nT) |

Solar conditions are at moderate levels with background X-ray flux at C-class level.

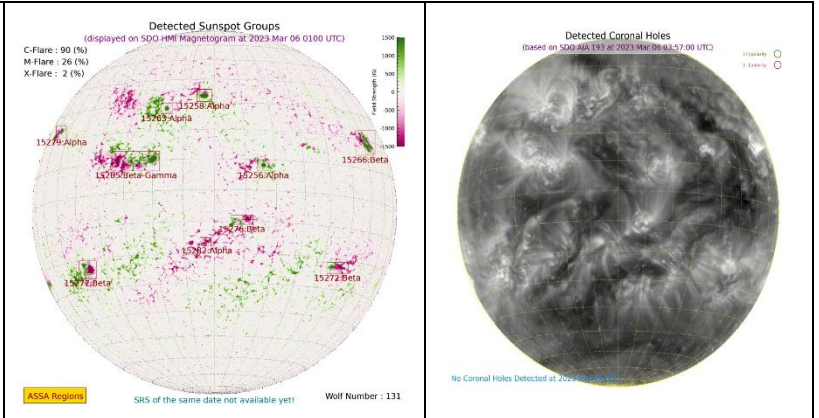
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

Notes: Credits: www.spaceweather.go.kr, www.sws.bom.gov.au, www.spaceweather.com, www.solen.info

Daily Sun: 8 March 2023

There is one active region AR3242 present on the Sun capable of producing strong M and X-class solar flares having chances of 26% and 2% respectively.

No Coronal Hole (CH) is detected on the solar disk.



DISCUSSION:

Solar activity is expected to be at moderate levels. In case of solar flares, shortwave fadeouts may be observed. Low solar wind speed and quiet geomagnetic activity is expected to prevail. HF conditions are enhanced.