

Daily Space Weather Summary (SUPARCO)

Monday, May 23, 2022, 12:40 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SONMIANI)

| | | | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Critical Frequency of F2 layer (foF2) | 10.4 MHz | | | | | | | |
| Virtual Height of F2 layer (h`F2) | 365 km | | | | | | | |
| Total Electron Content (TEC) | 40 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) | 10.5 | 10.8 | 11.8 | 13.4 | 15.1 | 17.0 | 21.7 | 30.4 |
| FOT (MHz) | 8.9 | 9.2 | 10.1 | 11.4 | 12.8 | 14.5 | 18.4 | 25.9 |

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

LOCAL GEOMAGNETIC CONDITIONS

| | |
|----------------------------------|----------------|
| K-index | 1 (Quiet) |
| Total Field (F) (Son/Isb) | 45580/50095 nT |

The local geomagnetic field is quite at the moment.

LATEST SOLAR CONDITIONS

| | |
|---|---|
| Sunspot Number (SN) | 138 |
| Solar radio flux (F10.7) | 167 sfu |
| Solar wind speed | 536 km/sec (varied in the past 24 hrs between 472 & 566 km/s) |
| Solar x-ray flares | C1.5 (max flare in the past 24 hrs: C4 2340 UT May 22) |
| Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz) | 5.2 nT (varied in the past 12 hrs between 4.1 nT & 5.2 nT) -3.0 nT (varied in the past 12 hrs between -3.0 nT & +2.8 nT) |

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

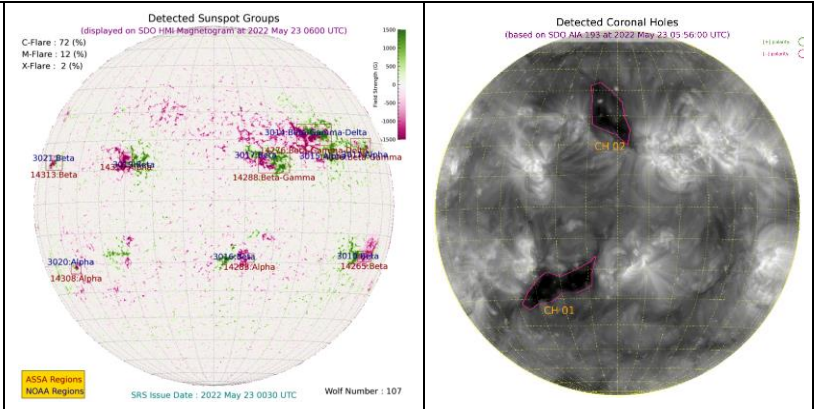
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 23 May 2022

AR 3014 active region present on the Sun has 53%, 15% and 3% tendency to producing C, M and X-class solar flares.

02 Coronal Holes (CHs) are detected on the solar disk.



DISCUSSION:

Solar activity is expected to remain at moderate levels. Moderate solar wind speed and quiet to unsettled geomagnetic activity is expected. Local HF conditions are enhanced.