

Daily Space Weather Summary (SUPARCO)

Thursday, May 19, 2022, 11:54 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

| | | | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Critical Frequency of F2 layer (foF2) | 11.4 MHz | | | | | | | |
| Virtual Height of F2 layer (h`F2) | 380 km | | | | | | | |
| Total Electron Content (TEC) | 45 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) | 11.5 | 11.8 | 12.8 | 14.3 | 16.0 | 17.8 | 22.4 | 27.8 |
| FOT (MHz) | 9.8 | 10.0 | 10.9 | 12.2 | 13.6 | 15.1 | 19.0 | 23.7 |

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

LOCAL GEOMAGNETIC CONDITIONS

| | |
|----------------------------------|----------------|
| K-index | 2 (Quiet) |
| Total Field (F) (SON/ISB) | 45579/50089 nT |

The local geomagnetic field is quite at the moment.

LATEST SOLAR CONDITIONS

| | |
|---|---|
| Sunspot Number (SN) | 147 |
| Solar radio flux (F10.7) | 180 sfu |
| Solar wind speed | 464.7 km/s (varied in the past 24 hrs between 416 & 523 km/s) |
| Solar x-ray flares | C3.4 (max flare in the past 24 hrs: M1, 2202 UT) |
| Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz) | 5.7 nT (varied in the past 12 hrs between 4.5 nT & 6.3 nT) 2.6 nT (varied in the past 12 hrs between -2.5 nT & 3.7 nT) |

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

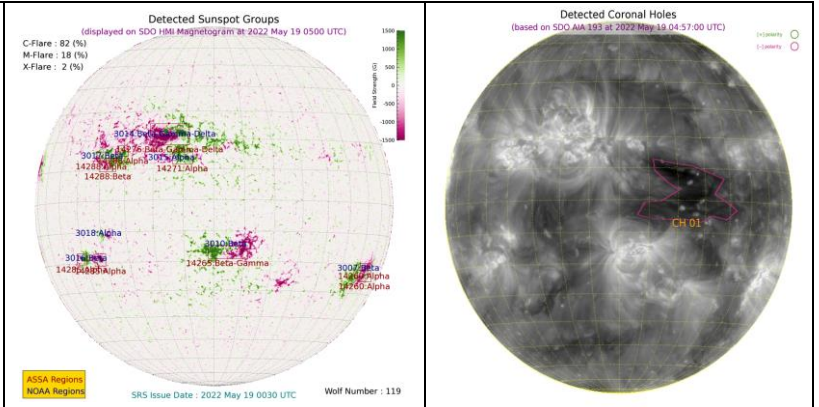
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 19 May 2022

There is one active region AR3014 present on the Sun capable of producing strong M and X-Class solar flares having chances of 35% and 15% respectively.

01 Coronal Hole (CH) is detected on the solar disk.



DISCUSSION:

Solar activity is expected to remain at moderate to high levels. Low solar wind speed and quiet geomagnetic activity is expected. Local HF conditions are normal. Minor to moderate radio blackouts may be observed in case of solar flares.