

Daily Space Weather Summary (SUPARCO)

Monday, May 06, 2024, 12:21 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

| | | | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Critical Frequency of F2 layer (foF2) | 10.0 MHz | | | | | | | |
| Virtual Height of F2 layer (h`F2) | 286 km | | | | | | | |
| Total Electron Content (TEC) | 38 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) | 10.1 | 10.6 | 12.6 | 14.3 | 16.3 | 19.3 | 22.3 | 27.5 |
| FOT (MHz) | 8.6 | 9.0 | 10.7 | 12.2 | 13.9 | 16.4 | 19.0 | 23.4 |

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

LOCAL GEOMAGNETIC CONDITIONS

| | |
|----------------------------------|----------------|
| K-index | 1 (Quiet) |
| Total Field (F) (Son/Isb) | 45695/50705 nT |

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

| | |
|---|--|
| Sunspot Number (SN) | 152 |
| Solar radio flux (F10.7) | 152 sfu |
| Solar wind speed | 421.1 km/s (varied in the past 24 hrs between 305 & 419 km/s) |
| Solar x-ray flares | X1.0 (max flare in the past 24 hrs (X4, 0635 UT) |
| Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz) | +15.6 nT (varied in the past 12 hrs between +10.4 nT & +15.1 nT) -2.0 nT (varied in the past 12 hrs between -11.2 nT & +3.7 nT) |

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

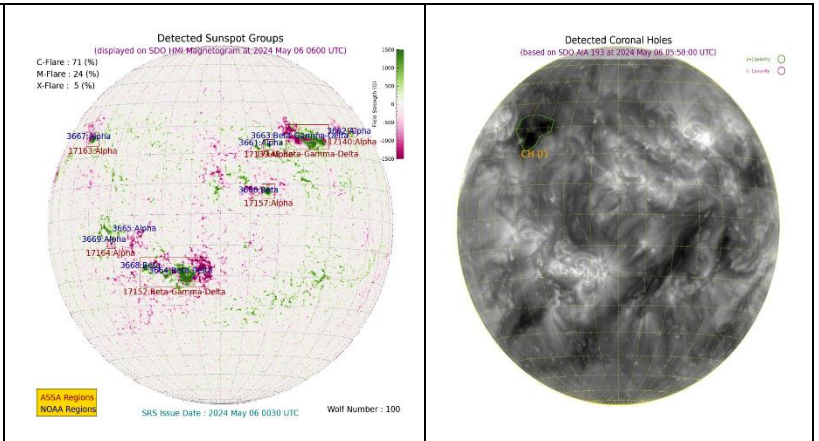
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 6 May 2024

There are two active regions AR3663 and AR3664 present on the Sun capable of producing strong M and X-class solar flares having chances of 24% and 5% respectively.

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



DISCUSSION:

Solar activity is expected to be at moderate to high levels. Multiple M/X-class solar flares, have already occurred from the regions mentioned. These caused minor to moderate radio blackouts. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Low to moderate solar wind speed and quiet to unsettled geomagnetic activity is expected. HF conditions are normal.