

Daily Space Weather Summary (SUPARCO)

Tuesday, November 15, 2022, 12:14 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

| | | | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Critical Frequency of F2 layer (foF2) | 10.8 MHz | | | | | | | |
| Virtual Height of F2 layer (h`F2) | 305 km | | | | | | | |
| Total Electron Content (TEC) | 50 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) | 10.9 | 11.4 | 12.9 | 15.0 | 17.4 | 19.8 | 25.5 | 28.7 |
| FOT (MHz) | 9.3 | 9.7 | 10.9 | 12.7 | 14.8 | 16.9 | 21.7 | 24.4 |

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) | 45529/50045 nT |

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

| | |
|---|--|
| Sunspot Number (SN) | 77 |
| Solar radio flux (F10.7) | 142 sfu |
| Solar wind speed | 413 km/sec (varied in the past 24 hrs between 307 & 515 km/s) |
| Solar x-ray flares | C 4.6 (max flare in the past 24 hrs: (M 1.0, 0251 UT Nov 15) |
| Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz) | 4.1 nT (varied in the past 12 hrs between 3.9 nT & 13.2 nT) -2.3 nT (varied in the past 12 hrs between -8.5 nT & +9.4 nT) |

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

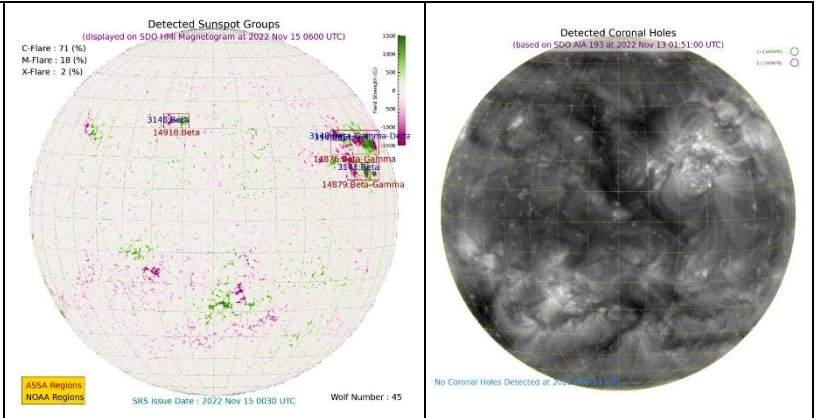
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 15 November 2022

There is one active region AR3140 present on the Sun capable of producing strong C and M-class solar flares having chances of 71% and 18% 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 are possible. Light to moderate solar wind speed and quiet to unsettled geomagnetic activity is expected. HF conditions are enhanced.