

Daily Space Weather Summary (SUPARCO)

Thursday, April 14, 2022, 12:16 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

| | | | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Critical Frequency of F2 layer (foF2) | 10.5 MHz | | | | | | | |
| Virtual Height of F2 layer (h`F2) | 320 km | | | | | | | |
| Total Electron Content (TEC) | 43 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) | 10.6 | 10.9 | 12.1 | 13.8 | 15.7 | 17.7 | 21.7 | 27.0 |
| FOT (MHz) | 9.0 | 9.3 | 10.3 | 11.7 | 13.3 | 15.0 | 18.4 | 23.0 |

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) | 45552/50062 nT |

The local geomagnetic field is quite at the moment.

LATEST SOLAR CONDITIONS

| | |
|---|--|
| Sunspot Number (SN) | 37 |
| Solar radio flux (F10.7) | 99 sfu |
| Solar wind speed | 452.8 km/s (varied in the past 24 hrs between 408 & 494 km/s) |
| Solar x-ray flares | B3.8 (max flare in the past 24 hrs: B4 0615 UT Apr 14) |
| Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz) | 6.4 nT (varied in the past 12 hrs between 5.6 nT & 9.4 nT) -4.3 nT (varied in the past 12 hrs between -6.1 nT & 6.1 nT) |

Solar conditions are at low levels with background X-ray flux at B-class level.

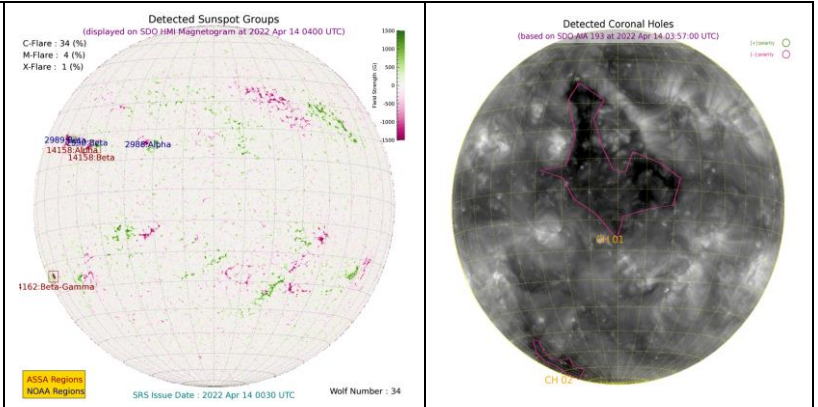
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 14 April 2022

There is no active region present on the Sun capable of producing strong solar flares.

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



DISCUSSION:

Solar activity is expected to remain at low levels. Geomagnetic activity is expected to be quiet except for possible geomagnetic storm due to possible CME impact at later hours today. Increase in solar wind speed is expected due to the possible CME impact. Local HF conditions are expected to remain normal to slightly depressed.