

Daily Space Weather Summary (SUPARCO)

Monday, December 12, 2022, 12:10 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	11.0 MHz							
Virtual Height of F2 layer (h`F2)	258 km							
Total Electron Content (TEC)	35 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)	11.2	11.8	13.8	16.6	19.6	22.6	29.4	32.2
FOT (MHz)	9.5	10.0	11.8	14.1	16.7	19.2	25.0	27.4

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)	45514/50030 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	141
Solar radio flux (F10.7)	148 sfu
Solar wind speed	448 km/sec (varied in the past 24 hrs between 314 & 549 km/s)
Solar x-ray flares	C 1.1 (max flare in the past 24 hrs: (C 3.0, 0035 UT Dec 12)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	6.2 nT (varied in the past 12 hrs between 4.3 nT & 16.4 nT) +5.4 nT (varied in the past 12 hrs between -11.5 nT & +13.8 nT)

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

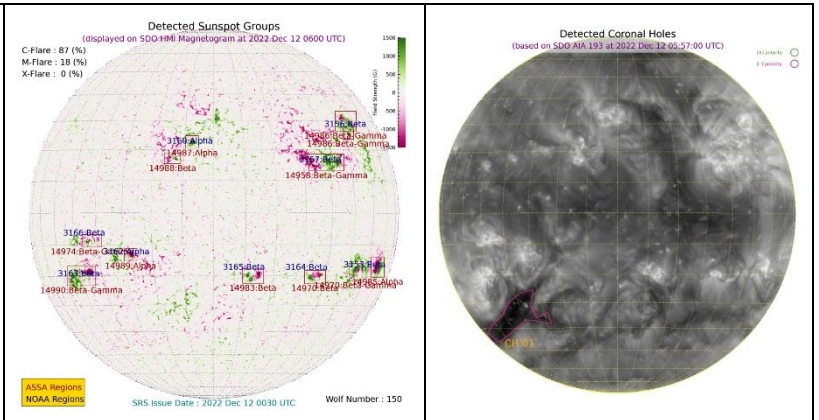
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 12 December 2022

There are no active regions present on the Sun capable of producing strong solar flares.

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



DISCUSSION:

Solar activity is expected to be at low to moderate levels. Solar wind speed is expected to be at or near background levels. Geomagnetic activity is expected to be mostly quiet today. HF conditions are normal.