

Daily Space Weather Summary (SUPARCO)

Thursday, October 20, 2022, 12:19 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	9.5 MHz							
Virtual Height of F2 layer (h`F2)	233 km							
Total Electron Content (TEC)	49 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)	9.7	10.4	12.3	14.2	17.3	19.9	25.5	29.4
FOT (MHz)	8.2	8.8	10.5	12.1	14.7	16.9	21.7	25.0

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (Son/Isb)	45539/50049 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	50
Solar radio flux (F10.7)	113 sfu
Solar wind speed	407.6 km/sec (varied in the past 24 hrs between 290 & 645 km/s)
Solar x-ray flares	C2.2 (max flare in the past 24 hrs: (C5, 0326 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	4.3 nT (varied in the past 12 hrs between 4.6 nT & 5.5 nT) -1.0 nT (varied in the past 12 hrs between -1.7 nT & 2.2 nT)

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

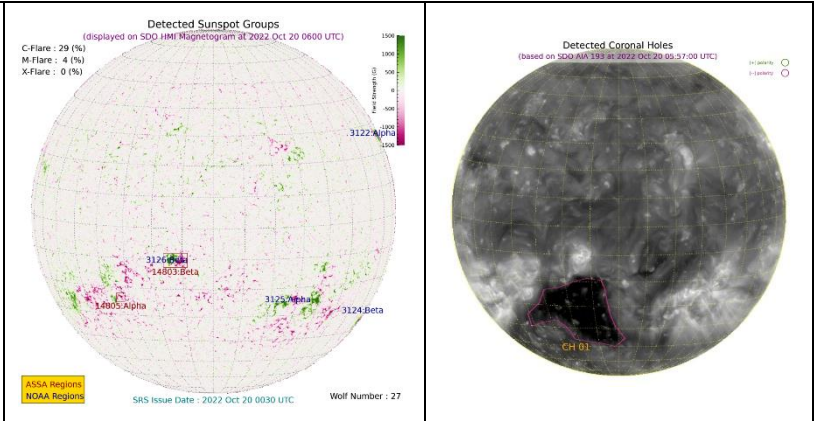
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 20 October 2022

There is no active region 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 remain at low levels. Low solar wind speed and quiet geomagnetic activity is expected. HF conditions are normal.