

Daily Space Weather Summary (SUPARCO)

Monday, May 22, 2023, 12:19 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	10.1 MHz							
Virtual Height of F2 layer (h`F2)	305 km							
Total Electron Content (TEC)	53 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)	10.2	11.5	12.8	14.7	16.8	18.9	23.9	28.1
FOT (MHz)	8.7	9.8	10.9	12.5	14.3	16.1	20.3	23.9

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)	45515/50025 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	140
Solar radio flux (F10.7)	163 sfu
Solar wind speed	523.0 km/s (varied in the past 24 hrs between 439 & 625 km/s)
Solar x-ray flares	C2.1 (max flare in the past 24 hrs (M2, 1604 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+6.8 nT (varied in the past 12 hrs between +6.4 nT & +10.3 nT) -4.5 nT (varied in the past 12 hrs between -8.8 nT & +2.7 nT)

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

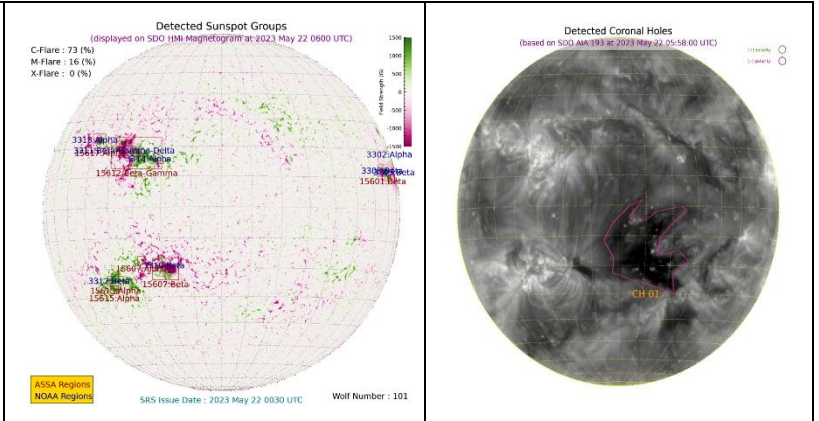
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 22 May 2023

There is one active region AR3311 present on the Sun capable of producing strong C and M-class solar flares having chances of 73% and 16% respectively.

01 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 may be observed. Low to moderate solar wind speed is expected due to the presence of coronal hole. Geomagnetic activity is expected to be quiet. HF conditions are normal.