

Daily Space Weather Summary (SUPARCO)

Thursday, August 18, 2022, 13:11 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	8.5 MHz							
Virtual Height of F2 layer (h`F2)	343 km							
Total Electron Content (TEC)	25 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)	8.6	8.9	9.8	11.2	12.7	14.5	18.5	21.5
FOT (MHz)	7.3	7.5	8.3	9.5	10.9	12.3	15.7	18.3

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	2 (Quiet)
Total Field (F) (Son/Isb)	45550/50100 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	83
Solar radio flux (F10.7)	123 sfu
Solar wind speed	573 km/sec (varied in the past 24 hrs between 424 & 616 km/s)
Solar x-ray flares	B 5.5 (max flare in the past 24 hrs: (M 2.0, 1345 UT Aug 17)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	11.9 nT (varied in the past 12 hrs between 10.4 nT & 18.1 nT) -1.2 nT (varied in the past 12 hrs between -17.4 nT & 15.6 nT)

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

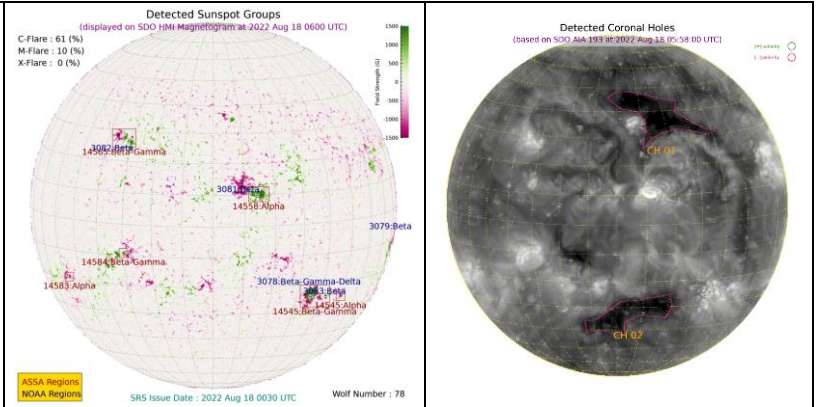
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 18 August 2022

AR 3078 is capable of producing strong M and X-Class solar flares having chances of 10% and 0% respectively.

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



DISCUSSION:

Solar activity is expected to remain at moderate to high levels with a chance of M-class flares. Short wave fadeouts will be observed in case of solar flares. Elevated solar wind speed is expected due to the coronal hole high speed wind stream. Geomagnetic activity is expected to be unsettled to active levels. HF conditions are slightly depressed.