

Daily Space Weather Summary (SUPARCO)

Wednesday, July 20, 2022, 12:15 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	8.5 MHz							
Virtual Height of F2 layer (h`F2)	340 km							
Total Electron Content (TEC)	20 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	11.1	12.6	13.2	18.0	21.6
FOT (MHz)	7.3	7.6	8.3	9.4	10.7	11.2	15.3	18.4

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)	45589/50099 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	114
Solar radio flux (F10.7)	144 sfu
Solar wind speed	413.2 km/sec (varied in the past 24 hrs between 404 & 525 km/s)
Solar x-ray flares	C1.1 (max flare in the past 24 hrs: (C3, 0215 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	10.4 nT (varied in the past 12 hrs between 8.5 nT & 10.1 nT) 3.6 nT (varied in the past 12 hrs between -6.1 nT & 5.8 nT)

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

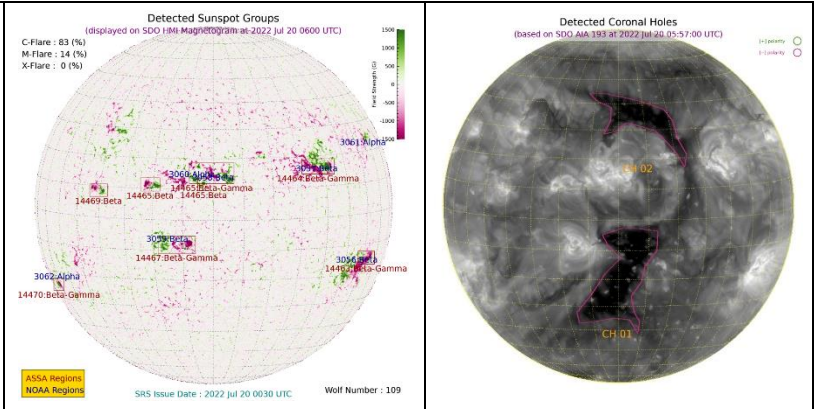
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 20 July 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 moderate levels. Moderate solar wind speed is expected due to the presence of coronal holes. Geomagnetic activity is expected to be quiet. HF conditions are normal. Minor radio blackouts may be observed in case of solar flares.