

Daily Space Weather Summary (SUPARCO)

Thursday, July 21, 2022, 12:34 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	7.4 MHz							
Virtual Height of F2 layer (h`F2)	418 km							
Total Electron Content (TEC)	28 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)	7.5	7.7	8.2	9.0	10.0	11.1	13.7	16.0
FOT (MHz)	6.4	6.5	7.0	7.7	8.5	9.4	11.6	13.6

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (SON/ISB)	45599/50109nT

The local geomagnetic field is quite at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	129
Solar radio flux (F10.7)	133 sfu
Solar wind speed	378.0 km/s (varied in the past 24 hrs between 357 & 433 km/s)
Solar x-ray flares	C1.0 (max flare in the past 24 hrs: (C5, 0111 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	9.6 nT (varied in the past 12 hrs between 6.4 nT & 9.8 nT) -2.2 nT (varied in the past 12 hrs between -2.2 nT & 3.6 nT)

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

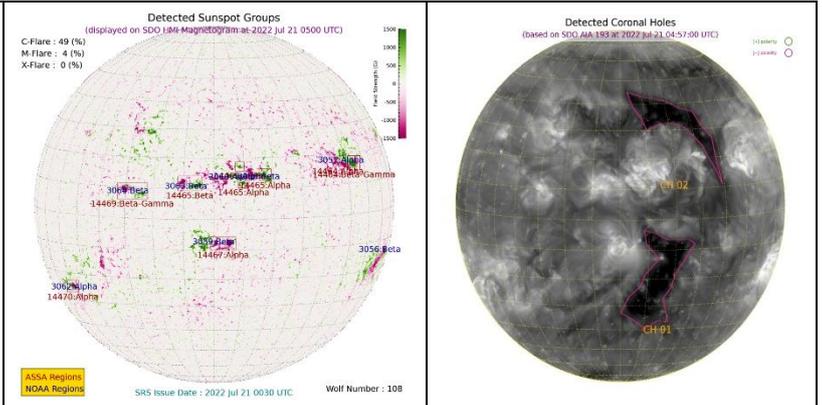
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 21 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 low to moderate levels. Solar wind speed may increase due to the impact of coronal holes. Geomagnetic activity is expected to be quiet. Local HF conditions are depressed. Minor radio blackouts may be observed in case of solar flares as the number of sunspots is high today.