

Daily Space Weather Summary (SUPARCO)

Monday, June 20, 2022, 12:52 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	8.6 MHz							
Virtual Height of F2 layer (h`F2)	448 km							
Total Electron Content (TEC)	40 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)	8.7	8.9	9.5	10.3	11.3	12.4	15.3	18.2
FOT (MHz)	7.4	7.6	8.1	8.8	9.6	10.5	13.0	15.4

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (SON/ISB)	45103/50113 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	120
Solar radio flux (F10.7)	144 sfu
Solar wind speed	540.3 km/s (varied in the past 24 hrs between 533 & 633 km/s)
Solar x-ray flares	C1.6 (max flare in the past 24 hrs: C5, 0618 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	7.7 nT (varied in the past 12 hrs between 5.2 nT & 7.8 nT) 1.2 nT (varied in the past 12 hrs between -0.7 nT & 1.2 nT)

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

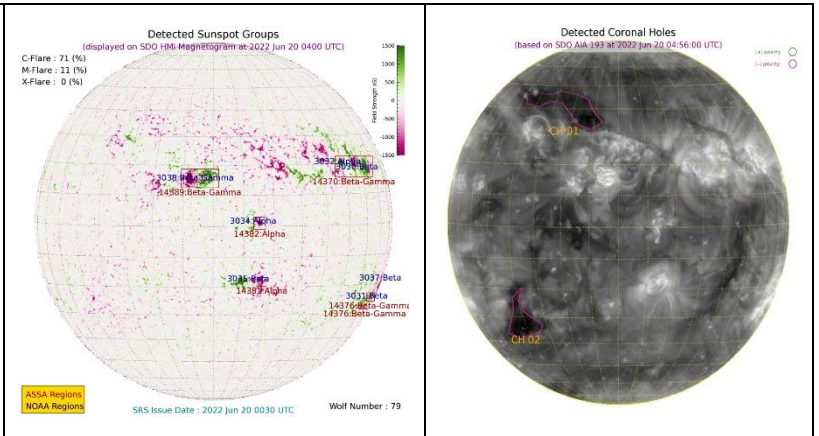
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 20 June 2022

There is one active region AR3038 present on the Sun capable of producing strong C and M-Class solar flares having chances of 71% and 11% respectively.

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



DISCUSSION:

Solar activity is expected to remain at low to moderate levels. Minor to moderate radio blackouts may be observed in case of M-Class solar flares. Moderate solar wind speed is expected due to the presence of coronal hole. Quiet geomagnetic activity is expected. Local HF conditions are slightly depressed. Due to the presence of sporadic E-layer, disruption in HF communication may occur.