

Daily Space Weather Summary (SUPARCO)

Thursday, April 20, 2023, 12:07 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	13.2 MHz							
Virtual Height of F2 layer (h`F2)	345 km							
Total Electron Content (TEC)	60 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)	13.3	13.6	14.0	16.9	19.1	21.4	26.9	33.0
FOT (MHz)	11.3	11.6	11.9	14.4	16.2	18.2	22.9	28.1

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	1 (Quiet)
Total Field (F) (Son/Isb)	45525/50035 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	113
Solar radio flux (F10.7)	147 sfu
Solar wind speed	409.1 km/s (varied in the past 24 hrs between 408 & 543 km/s)
Solar x-ray flares	C1.6 (max flare in the past 24 hrs (C3, 0841 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+10.0 nT (varied in the past 12 hrs between +8.9 nT & +10.7 nT) +8.4 nT (varied in the past 12 hrs between -0.2 nT & +8.7 nT)

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

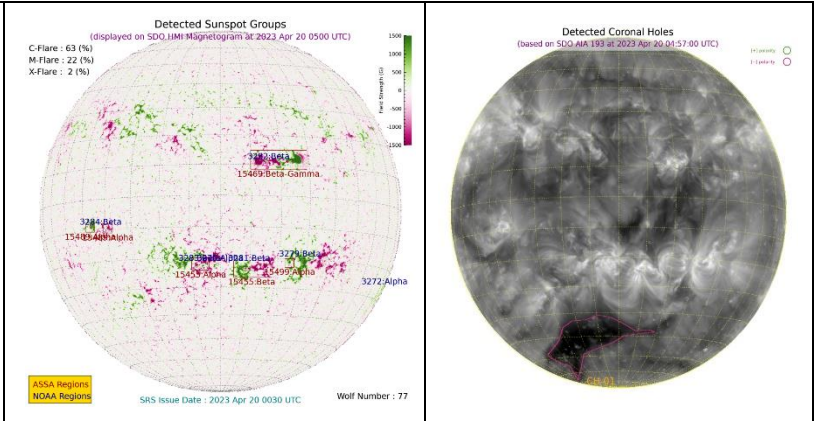
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 20 April 2023

There is no active region present on the Sun capable of producing strong solar flares.

01 Coronal Hole (CH) is detected on the solar disk.



DISCUSSION:

Solar activity is expected to be at low levels. In case of solar flares, shortwave fadeouts may be observed. Low to slightly elevated solar wind speed is expected due to the presence of coronal hole. Geomagnetic activity is expected to be quiet. HF conditions are enhanced.