

Daily Space Weather Summary (SUPARCO)

Thursday, April 25, 2024, 12:15 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	7.2 MHz							
Virtual Height of F2 layer (h`F2)	254 km							
Total Electron Content (TEC)	32 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)	7.4	7.7	8.8	10.4	12.2	13.8	17.4	21.1
FOT (MHz)	6.3	6.5	7.5	8.8	10.4	11.7	14.8	18.0

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (Son/Isb)	45536/50546 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	283
Solar radio flux (F10.7)	199 sfu
Solar wind speed	325.6 km/s (varied in the past 24 hrs between 318 & 464 km/s)
Solar x-ray flares	C2.1 (max flare in the past 24 hrs (M2, 2259 UT))
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+4.2 nT (varied in the past 12 hrs between +3.5 nT & +3.9 nT) -1.9 nT (varied in the past 12 hrs between -1.0 nT & +2.0 nT)

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

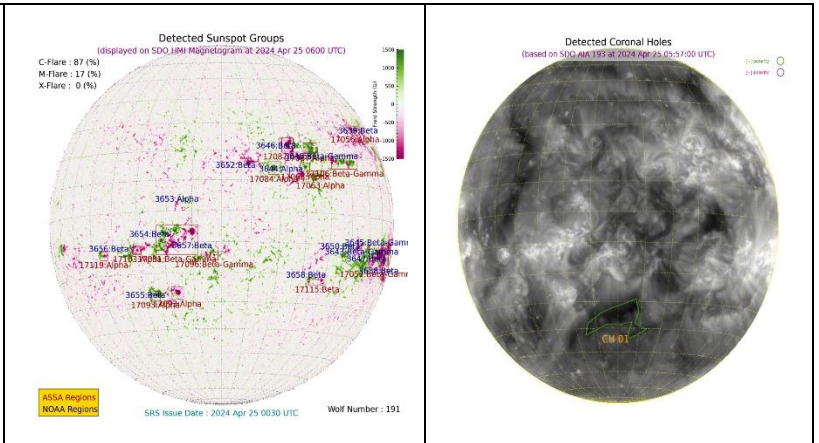
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 25 April 2024

There are three active regions AR3643, AR3645 and AR3648 present on the Sun capable of producing strong C and M-class solar flares having chances of 87% and 17% respectively.

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



DISCUSSION:

Solar activity is expected to be at low to moderate levels. Multiple M-class solar flares, have already occurred from the regions mentioned. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Low to moderate solar wind speed is expected due to the presence of coronal holes. Geomagnetic activity is expected to be quiet. HF conditions are normal.