

Daily Space Weather Summary (SUPARCO)

Wednesday, July 10, 2024, 15:17 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	8.3 MHz							
Virtual Height of F2 layer (h`F2)	274 km							
Total Electron Content (TEC)	52 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)	8.5	8.8	9.9	11.5	13.3	14.6	18.5	22.6
FOT (MHz)	7.3	7.5	8.4	9.8	11.3	12.7	15.7	19.1

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)	45676/50785 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	143
Solar radio flux (F10.7)	180 sfu
Solar wind speed	374.3 km/s (varied in the past 24 hrs between 36 & 443 km/s)
Solar x-ray flares	C7.1 (max flare in the past 24 hrs (M1, 0559 UT))
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+5.5 nT (varied in the past 12 hrs between +3.3 nT & +5.9 nT) -3.9 nT (varied in the past 12 hrs between -4.2 nT & +2.7 nT)

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

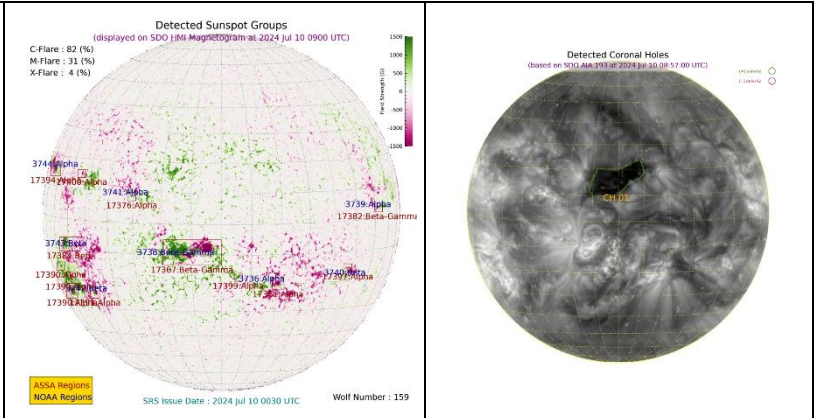
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 10 July 2024

There is one active region AR3738 present on the Sun capable of producing strong M and X-class solar flares having chances of 31% and 4% respectively.

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



DISCUSSION:

Solar activity is expected to be at low to moderate levels. Few M-class solar flares, have already occurred from the region mentioned above. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Low solar wind speed and quiet geomagnetic activity is expected to prevail. HF conditions are normal.