

Daily Space Weather Summary (SUPARCO)

Wednesday, September 04, 2024, 12:54 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	13.2 MHz							
Virtual Height of F2 layer (h`F2)	365 km							
Total Electron Content (TEC)	65 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	13.7	14.5	16.6	18.6	20.8	26.0	31.8
FOT (MHz)	11.3	11.6	12.3	14.1	15.8	17.7	22.1	27.1

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (Son/Isb)	45682/50714 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	133
Solar radio flux (F10.7)	242 sfu
Solar wind speed	323.7 km/s (varied in the past 24 hrs between 319 & 410 km/s)
Solar x-ray flares	C4.9 (max flare in the past 24 hrs (M3, 1602 UT))
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+8.72 nT (varied in the past 12 hrs between +7.77 nT & +9.6 nT) +8.42 nT (varied in the past 12 hrs between +4.36 nT & +8.86 nT)

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

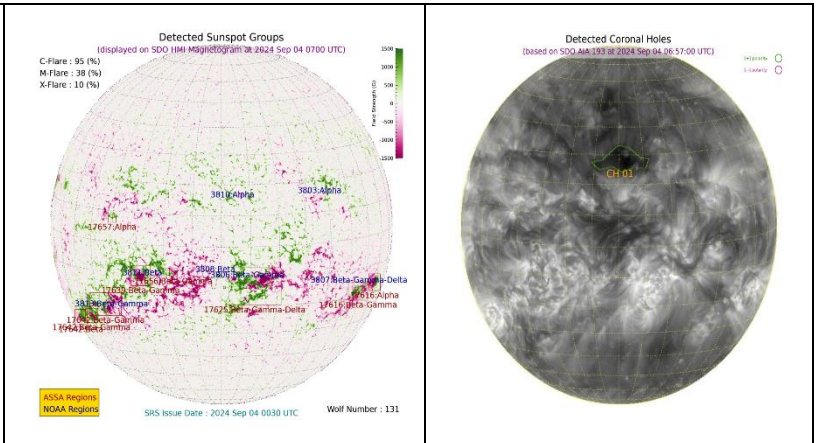
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 4 September 2024

There are three active regions AR3806, AR3807 and AR3813 present on the Sun capable of producing strong M and X-class solar flares having chances of 38% and 10% 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 above. In case of more M/X-class solar flares, shortwave fadeouts may be observed. Low solar wind speed and quiet geomagnetic activity is expected. HF conditions are slightly enhanced.