

# Daily Space Weather Summary (SUPARCO)

Thursday, August 08, 2024, 15:07 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	7.4 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	274 km							
<b>Total Electron Content (TEC)</b>	50 TECU							
<b>Maximum Usable Frequency (MUF) and Optimum Traffic Frequency (FOT) for various distances</b>								
<b>Distance (Km)</b>	<b>100</b>	<b>200</b>	<b>400</b>	<b>600</b>	<b>800</b>	<b>1000</b>	<b>1500</b>	<b>3000</b>
<b>MUF (MHz)</b>	7.5	8.4	9.1	11.3	13.7	16.2	21.8	26.3
<b>FOT (MHz)</b>	6.4	7.1	7.8	9.6	11.7	13.8	18.5	23.8

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	1 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45656/50765 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	242
<b>Solar radio flux (F10.7)</b>	303 sfu
<b>Solar wind speed</b>	382.3 km/s (varied in the past 24 hrs between 352 & 450 km/s)
<b>Solar x-ray flares</b>	C4.9 (max flare in the past 24 hrs (M4, 1854 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+5.68 nT (varied in the past 12 hrs between +4.73 nT & +5.75 nT) -5.3 nT (varied in the past 12 hrs between -4.12 nT & +5.31 nT)

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

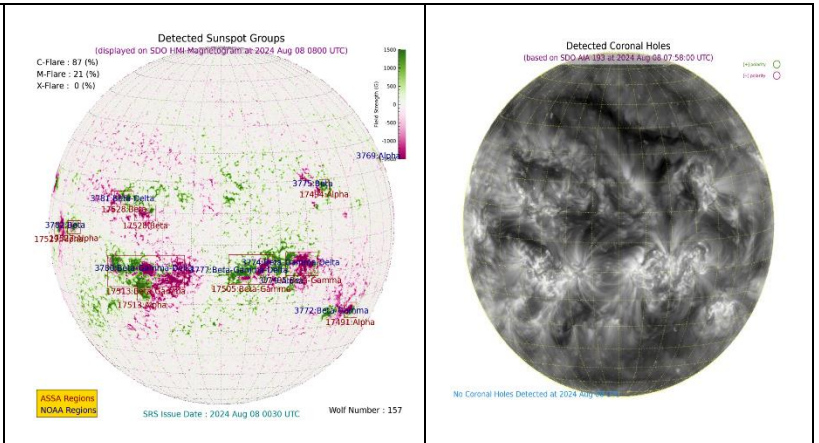
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

Notes: Credits: [www.spaceweather.go.kr](http://www.spaceweather.go.kr), [www.sws.bom.gov.au](http://www.sws.bom.gov.au), [www.spaceweather.com](http://www.spaceweather.com), [www.solen.info](http://www.solen.info)

## Daily Sun: 8 August 2024

There are five active regions AR3772, AR3774, AR3777, AR3880 and AR3881 present on the Sun capable of producing strong C and M-class solar flares having chances of 87% and 21% respectively.

No Coronal Hole (CH) is detected on the solar disk.



### DISCUSSION:

Solar activity is expected to be at moderate to high 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 to moderate solar wind speed and quiet to unsettled geomagnetic activity is expected to prevail. HF conditions are slightly enhanced.