

# Daily Space Weather Summary (SUPARCO)

Wednesday, May 08, 2024, 12:21 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	8.0 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	265 km							
<b>Total Electron Content (TEC)</b>	42 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>	8.3	8.7	10.5	12.9	15.5	18.2	24.3	27.5
<b>FOT (MHz)</b>	7.0	7.4	8.9	10.9	13.2	15.5	20.7	23.4

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	1 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45683/50783 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	144
<b>Solar radio flux (F10.7)</b>	204 sfu
<b>Solar wind speed</b>	460.0 km/s (varied in the past 24 hrs between 452 & 592 km/s)
<b>Solar x-ray flares</b>	M4.2 (max flare in the past 24 hrs (X1, 0141 UT))
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+3.2 nT (varied in the past 12 hrs between +3.6 nT & +4.7 nT) -1.2 nT (varied in the past 12 hrs between -3.4 nT & +2.1 nT)

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

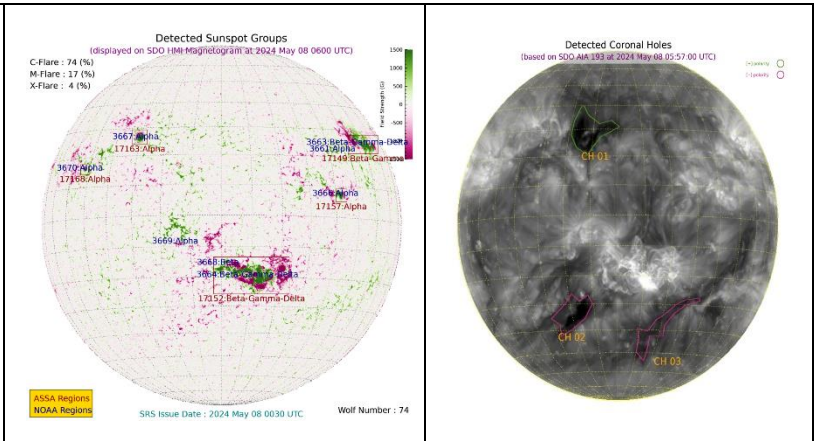
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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 May 2024

There are two active regions AR3663 and AR3664 present on the Sun capable of producing strong M and X-class solar flares having chances of 17% and 4% respectively.

03 Coronal Holes (CHs) are detected on the solar disk.



### DISCUSSION:

Solar activity is expected to be at moderate to high levels. Multiple M and X-class solar flares, have already occurred from the regions 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 geomagnetic activity is expected. HF conditions are normal.