

# Daily Space Weather Summary (SUPARCO)

Wednesday, September 11, 2024, 12:38 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	13.2 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	365 km							
<b>Total Electron Content (TEC)</b>	65 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>	13.3	13.7	14.5	16.6	18.6	20.8	26.0	31.8
<b>FOT (MHz)</b>	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

<b>K-index</b>	0 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45674/50724 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	147
<b>Solar radio flux (F10.7)</b>	205 sfu
<b>Solar wind speed</b>	364.8 km/s (varied in the past 24 hrs between 333 & 463 km/s)
<b>Solar x-ray flares</b>	C3.0 (max flare in the past 24 hrs (M1, 1547 UT))
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+2.38 nT (varied in the past 12 hrs between +1.51 nT & +5.62 nT) +0.37 nT (varied in the past 12 hrs between +1.12 nT & -2.83 nT)

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

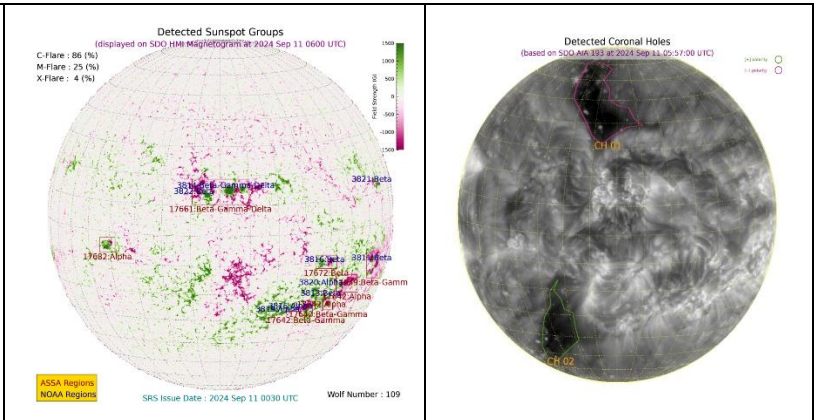
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

Notes: Credits: [www.spaceweather.go.kr](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: 11 September 2024

There is one active region AR3814 present on the Sun capable of producing strong M and X-class solar flares having chances of 25% and 4% respectively.

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



### DISCUSSION:

Solar activity is expected to be at low to moderate levels. Some M-class solar flares, have already occurred from the regions mentioned above. In case of more M/X-class solar flares, radio blackouts may be observed. Low to moderate solar wind speed is expected to prevail due the effect of CME. Geomagnetic activity is expected. HF conditions are slightly enhanced.