

# Daily Space Weather Summary (SUPARCO)

Thursday, September 26, 2024, 13:17 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	12.8 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	350 km							
<b>Total Electron Content (TEC)</b>	70 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>	13.0	13.3	14.6	16.5	18.7	21.0	26.6	33.3
<b>FOT (MHz)</b>	11.1	11.3	12.4	14.0	15.9	17.9	22.6	28.3

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	2 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45669/50715 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	160
<b>Solar radio flux (F10.7)</b>	174 sfu
<b>Solar wind speed</b>	424.2 km/s (varied in the past 24 hrs between 415 & 575 km/s)
<b>Solar x-ray flares</b>	C1.9 (max flare in the past 24 hrs (M1, 2312 UT))
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+5.5 nT (varied in the past 12 hrs between +3.72 nT & +5.91 nT) -1.8 nT (varied in the past 12 hrs between -4.39 nT & -0.91 nT)

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

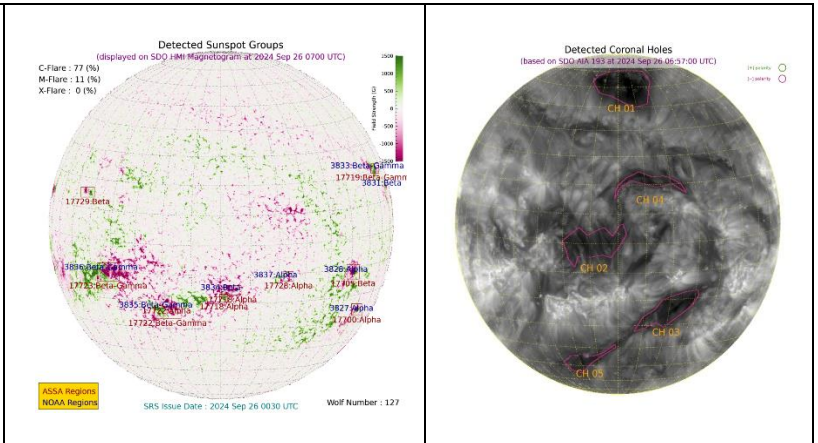
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 26 September 2024

There are three active regions AR3833, AR3835 and AR3836 present on the Sun capable of producing strong C and M-class solar flares having chances of 77% and 11% respectively.

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



### DISCUSSION:

Solar activity is expected to be at low to moderate levels. In case of 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. HF conditions are slightly enhanced.