

# Daily Space Weather Summary (SUPARCO)

Thursday, September 14, 2023, 12:00 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	9.4 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	280 km							
<b>Total Electron Content (TEC)</b>	32 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>	9.5	9.9	11.3	13.3	15.6	17.8	22.8	27.4
<b>FOT (MHz)</b>	8.1	8.4	9.6	11.3	13.3	15.1	19.4	23.3

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	2 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45512/50022 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	109
<b>Solar radio flux (F10.7)</b>	143 sfu
<b>Solar wind speed</b>	439.4 km/s (varied in the past 24 hrs between 354 & 466 km/s)
<b>Solar x-ray flares</b>	C1.1 (max flare in the past 24 hrs (C5, 0810 UT))
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+5.8 nT (varied in the past 12 hrs between +6.8 nT & +10.4 nT) -5.0 nT (varied in the past 12 hrs between -5.2 nT & +10.0 nT)

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

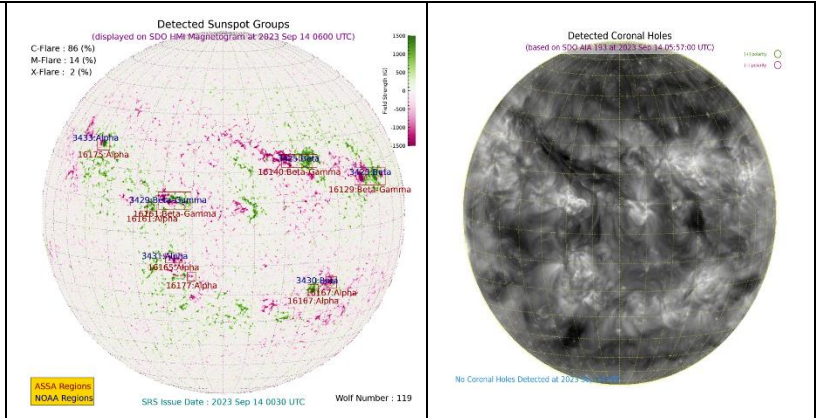
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 14 September 2023

There is one active region AR3429 present on the Sun capable of producing strong M and X-class solar flares having chances of 14% and 2% respectively.

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



### DISCUSSION:

Solar activity is expected to be at low levels. In case of solar flares, shortwave fadeouts may be observed. Low to moderate solar wind speed and quiet geomagnetic activity is expected. HF conditions are normal.