

# Daily Space Weather Summary (SUPARCO)

Tuesday, September 03, 2024, 12:04 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	13.5 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	363 km							
<b>Total Electron Content (TEC)</b>	60 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>	13.6	14.0	15.3	17.1	19.3	21.6	27.3	34.4
<b>FOT (MHz)</b>	11.6	11.9	13.0	14.5	16.4	18.4	23.2	29.3

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>	45672/50772 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	200
<b>Solar radio flux (F10.7)</b>	226 sfu
<b>Solar wind speed</b>	402.7 km/s (varied in the past 24 hrs between 377 & 497 km/s)
<b>Solar x-ray flares</b>	C3.2 (max flare in the past 24 hrs (M2, 1343 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+10.27 nT (varied in the past 12 hrs between +7.55 nT & +12.02 nT) -2.64 nT (varied in the past 12 hrs between -5.53 nT & +8.16 nT)

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

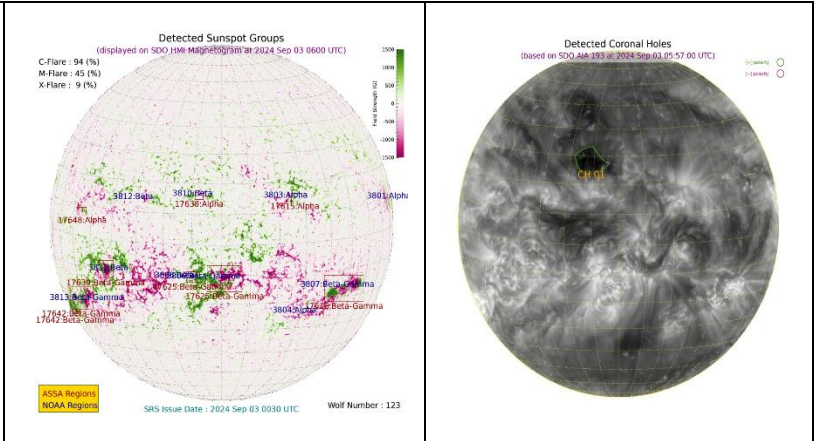
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 3 September 2024

There are three active regions AR3806, AR3807 and AR3813 present on the Sun capable of producing strong M and X-class solar flares having chances of 45% and 9% respectively.

01 Coronal Hole (CH) is detected on the solar disk.



### DISCUSSION:

Solar activity is expected to be at moderate to high levels. Multiple M-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 solar wind speed and quiet geomagnetic activity is expected. HF conditions are slightly enhanced.