

# Daily Space Weather Summary (SUPARCO)

Tuesday, July 09, 2024, 15:04 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	8.5 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	273 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>	8.6	8.8	9.9	11.5	13.3	14.7	18.3	22.3
<b>FOT (MHz)</b>	7.2	7.6	8.5	9.9	11.4	12.8	15.7	19.1

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	0 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45675/50775 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	95
<b>Solar radio flux (F10.7)</b>	169 sfu
<b>Solar wind speed</b>	386.4 km/s (varied in the past 24 hrs between 356 & 438 km/s)
<b>Solar x-ray flares</b>	C1.8 (max flare in the past 24 hrs (M1, 1241 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+5.3 nT (varied in the past 12 hrs between +3.1 nT & +5.5 nT) -2.9 nT (varied in the past 12 hrs between -3.2 nT & +1.7 nT)

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

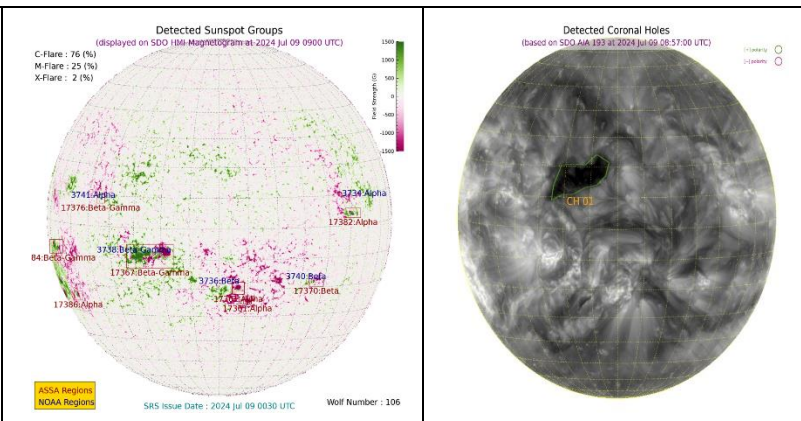
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 9 July 2024

There is one active region AR3738 present on the Sun capable of producing strong M and X-class solar flares having chances of 25% and 2% respectively.

1 Coronal Hole (CH) is 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 region 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 to prevail. HF conditions are normal.