

# Daily Space Weather Summary (SUPARCO)

Tuesday, July 19, 2022, 12:46 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	9.3 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	350 km							
<b>Total Electron Content (TEC)</b>	24 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>	9.4	9.6	10.6	11.9	13.5	15.2	19.2	23.5
<b>FOT (MHz)</b>	8.0	8.2	9.0	10.1	11.5	12.9	16.3	19.9

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-Index</b>	4 (Unsettled)
<b>Total Field (F) (SON/ISB)</b>	45113 /50123 nT

The local geomagnetic field is unsettled at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	125
<b>Solar radio flux (F10.7)</b>	152 sfu
<b>Solar wind speed</b>	440.2 km/s (varied in the past 24 hrs between 347 & 520 km/s)
<b>Solar x-ray flares</b>	C1.0 (max flare in the past 24 hrs: C3, 2354 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	13.2 nT (varied in the past 12 hrs between 7.7nT & 15.4 nT) -10.5 nT (varied in the past 12 hrs between -9.6 nT & 12.9 nT)

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

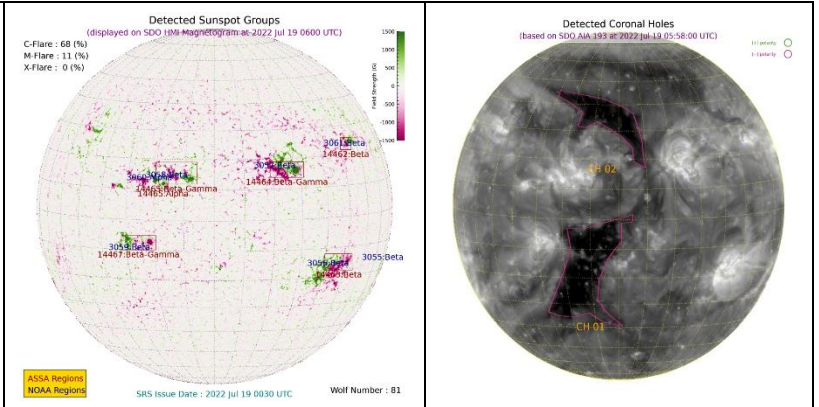
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 19 July 2022

There is no active region present on the Sun capable of producing strong solar flares.

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



### DISCUSSION:

Solar activity is expected to remain at moderate levels. Moderate solar wind speed is expected to prevail. Geomagnetic activity is expected to be quiet to unsettled. Local HF conditions are normal.