

# Daily Space Weather Summary (SUPARCO)

Monday, June 19, 2023, 12:41 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	10.1 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	305 km							
<b>Total Electron Content (TEC)</b>	53 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>	10.2	11.5	12.8	14.7	16.8	18.9	23.9	28.1
<b>FOT (MHz)</b>	8.7	9.8	10.9	12.5	14.3	16.1	20.3	23.9

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	1 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45515/50025 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	133
<b>Solar radio flux (F10.7)</b>	164 sfu
<b>Solar wind speed</b>	386.8 km/s (varied in the past 24 hrs between 377 & 415 km/s)
<b>Solar x-ray flares</b>	C1.8 (max flare in the past 24 hrs M2, 1353 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+6.4 nT (varied in the past 12 hrs between +5.2 nT & +6.6 nT) -0.8 nT (varied in the past 12 hrs between -5.1 nT & +2.7 nT)

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

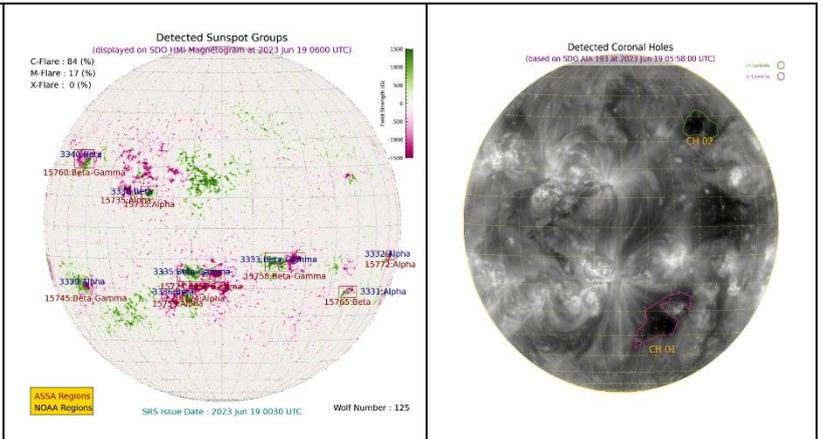
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 19 June 2023

There are two active regions AR3333 and AR3335 present on the Sun capable of producing strong C and M-class solar flares having chances of 84% and 17% respectively.

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



### DISCUSSION:

Solar activity is expected to be at low to moderate levels. In case of solar flares, shortwave fadeouts may be observed. Low to moderate solar wind speed is expected due to the presence of coronal holes. Geomagnetic activity is expected to be quiet. HF conditions are normal.