

# Daily Space Weather Summary (SUPARCO)

Tuesday, March 19, 2024, 12:41 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	8.9 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	265 km							
<b>Total Electron Content (TEC)</b>	30 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>	9.1	9.4	10.0	11.6	13.4	16.7	20.2	22.9
<b>FOT (MHz)</b>	7.7	8.0	8.5	9.9	11.4	14.1	17.2	19.4

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>	45522/50622 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	127
<b>Solar radio flux (F10.7)</b>	151 sfu
<b>Solar wind speed</b>	372.5 km/s (varied in the past 24 hrs between 278 & 455 km/s)
<b>Solar x-ray flares</b>	C2.3 (max flare in the past 24 hrs (M6, 1919 UT))
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+4.0 nT (varied in the past 12 hrs between +4.4 nT & +9.6 nT) -2.5 nT (varied in the past 12 hrs between -6.5 nT & +4.1 nT)

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

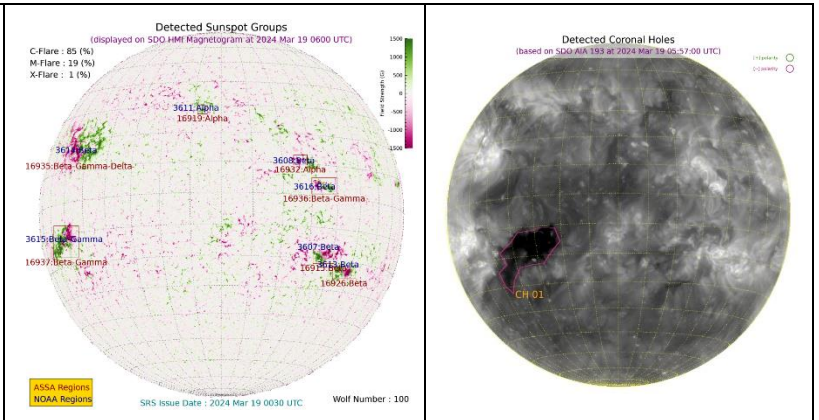
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 19 March 2024

There is one active region AR3615 present on the Sun capable of producing strong M and X-class solar flares having chances of 19% and 1% 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 region mentioned. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Low to moderate solar wind speed and quiet geomagnetic activity is expected. HF conditions are normal.