

# Daily Space Weather Summary (SUPARCO)

Thursday, February 23, 2023, 12:30 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	12.4 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	289 km							
<b>Total Electron Content (TEC)</b>	51 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>	12.5	12.7	13.2	14.7	15.3	16.0	20.1	25.2
<b>FOT (MHz)</b>	8.4	8.7	9.5	10.8	12.2	13.6	17.1	21.4

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	2 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45525/50035 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	100
<b>Solar radio flux (F10.7)</b>	161 sfu
<b>Solar wind speed</b>	526.4 km/s (varied in the past 24 hrs between 413 & 587 km/s)
<b>Solar x-ray flares</b>	C2.0 (max flare in the past 24 hrs (M2, 1350 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+6.6 nT (varied in the past 12 hrs between +6.3 nT & +10.0 nT) -0.4 nT (varied in the past 12 hrs between -5.6 nT & +7.4 nT)

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

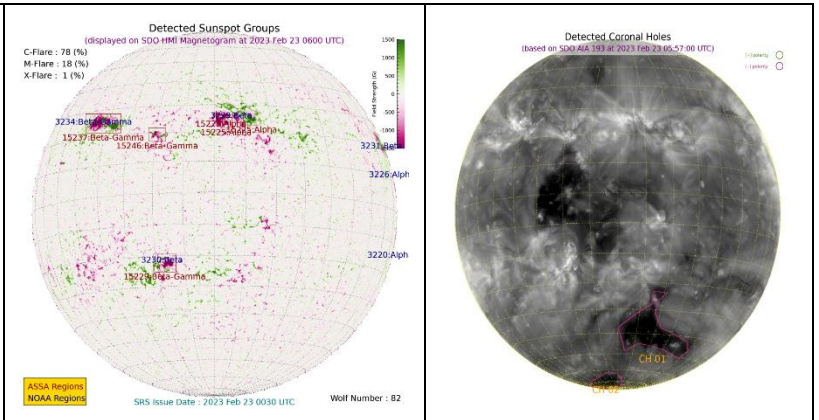
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 23 February 2023

There is one active region AR3234 present on the Sun capable of producing strong M and X-class solar flares having chances of 18% and 1% respectively.

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



### DISCUSSION:

Solar activity is expected to be at low to moderate levels. Low solar wind speed and quiet geomagnetic activity is expected to prevail. HF conditions are slightly enhanced.