

# Daily Space Weather Summary (SUPARCO)

Tuesday, October 18, 2022, 12:40 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	11.1 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	264 km							
<b>Total Electron Content (TEC)</b>	50 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>	11.3	11.9	13.9	16.6	19.5	22.5	29.1	32.3
<b>FOT (MHz)</b>	9.6	10.1	11.8	14.1	16.6	19.1	24.8	27.5

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	1 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45538/50049 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	84
<b>Solar radio flux (F10.7)</b>	126 sfu
<b>Solar wind speed</b>	543.2 km/sec (varied in the past 24 hrs between 300.4 & 645.8 km/s)
<b>Solar x-ray flares</b>	B 6.8 (max flare in the past 24 hrs: (C 3.0, 1714 UT Oct 17)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	4.2 nT (varied in the past 12 hrs between 1.9 nT & 17.6 nT) +3.3 nT (varied in the past 12 hrs between -13.6 nT & +9.2 nT)

Solar conditions are at low levels with background X-ray flux at B-class level.

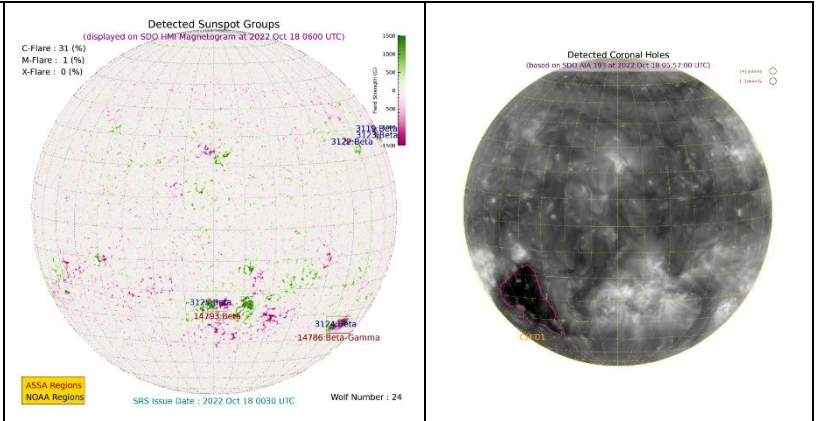
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 18 October 2022

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

01 Coronal Hole (CH) is detected on the solar disk.



### DISCUSSION:

Solar activity is expected to be at low levels with a chance for C-class flares. Moderate to low solar wind speed and unsettled geomagnetic activity is expected under CH HSS influence. HF conditions are slightly enhanced.