

# Daily Space Weather Summary (SUPARCO)

Thursday, October 06, 2022, 12:18 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	12.7 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	293 km							
<b>Total Electron Content (TEC)</b>	59 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>	12.9	13.4	15.1	17.5	20.0	22.7	29.0	35.1
<b>FOT (MHz)</b>	11.0	11.4	12.8	14.9	17.0	19.3	24.7	29.8

Local HF conditions are 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>	45505/50015 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	151
<b>Solar radio flux (F10.7)</b>	161 sfu
<b>Solar wind speed</b>	531.4 km/sec (varied in the past 24 hrs between 392 & 587 km/s)
<b>Solar x-ray flares</b>	C1.0 (max flare in the past 24 hrs: (C2, 2119 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	6.3 nT (varied in the past 12 hrs between 4.5 nT & 7.0 nT) -6.0 nT (varied in the past 12 hrs between -6.1 nT & 1.3 nT)

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

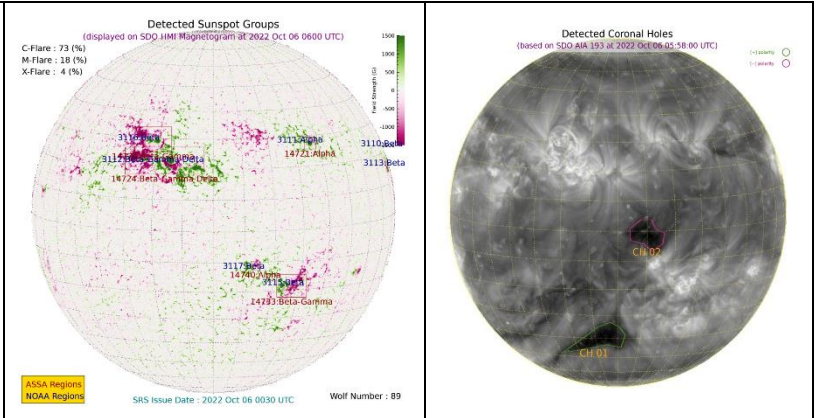
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 6 October 2022

There is one active region AR3112 present on the Sun capable of producing strong C and M-class solar flares having chances of 73% and 18% respectively.

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



### DISCUSSION:

Solar activity is expected to remain at moderate levels. In case of solar flares, shortwave fadeouts are possible. Low to moderate solar wind speed is expected to prevail due to the presence of coronal holes. Geomagnetic activity is expected to be quiet. HF conditions are enhanced.