

# Daily Space Weather Summary (SUPARCO)

Monday, December 18, 2023, 12:30 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	10.0 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	280 km							
<b>Total Electron Content (TEC)</b>	40 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	10.4	11.4	12.5	15.8	18.4	23.2	27.0
<b>FOT (MHz)</b>	8.7	8.9	9.7	10.6	13.4	15.6	19.7	23.0

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	2 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45603/50613 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	129
<b>Solar radio flux (F10.7)</b>	155 sfu
<b>Solar wind speed</b>	469.1 km/s (varied in the past 24 hrs between 460 & 559 km/s)
<b>Solar x-ray flares</b>	C2.1 (max flare in the past 24 hrs (M1, 2017 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+11.0 nT (varied in the past 12 hrs between +7.1 nT & +11.8 nT) -9.7 nT (varied in the past 12 hrs between +3.8 nT & +11.4 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)

