

# Daily Space Weather Summary (SUPARCO)

Monday, February 21, 2022, 12:32 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	12.1 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	243 km							
<b>Total Electron Content (TEC)</b>	28 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>	12.4	13	15.1	17.8	20.8	23.7	27.7	36.6
<b>FOT (MHz)</b>	10.5	11.1	12.8	15.1	17.6	20.1	23.5	31.1

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	0 (Quiet)
<b>Total Field (F) (SON/ISB)</b>	45567/50078 nT

The local geomagnetic field is quite at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	49
<b>Solar radio flux (F10.7)</b>	93 sfu
<b>Solar wind speed</b>	535.8 km/s (varied in the past 24 hrs between 473 & 565 km/s)
<b>Solar x-ray flares</b>	B2.0 (max flare in the past 24 hrs: B4 1218 UT Feb 20)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	3.6 nT (varied in the past 12 hrs between 1.4 nT & 8.2 nT) -2.6 nT (varied in the past 12 hrs between -0.1 nT & 6.1 nT)

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

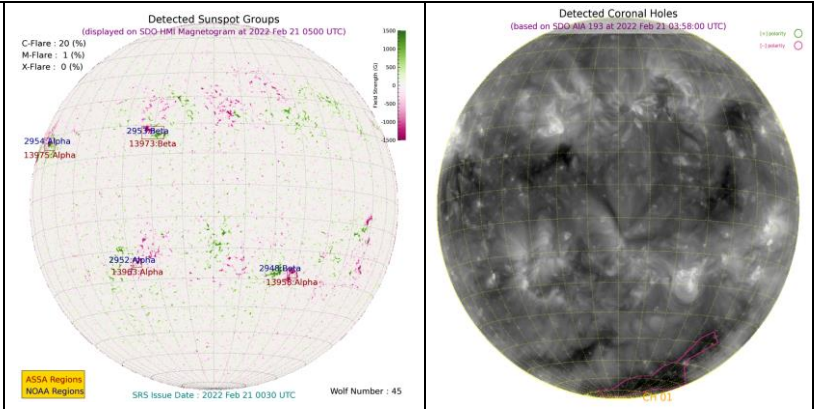
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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: 21 February 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 remain at low levels. Moderate solar wind speed is expected due to the presence of a coronal hole. Geomagnetic activity is expected to be quiet. Local HF conditions are enhanced.