

# Daily Space Weather Summary (SUPARCO)

Tuesday, March 04, 2025, 12:10 PST



Radio Blackouts			Solar Radiation Storms			Geomagnetic Storms		
-24 Hr	Current	Predicted	-24 Hr	Current	Predicted	-24 Hr	Current	Predicted
R1 – R0	R0 / R1	R1 – R2	S1	S0	S0 / S1	G0	G0	G0 / G1

## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	13.2 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	313 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>	13.4	15.2	17.2	19.8	22.9	25.4	28.0	30.8
<b>FOT (MHz)</b>	11.4	13.2	14.9	16.9	19.6	22.1	24.4	26.4

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

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	1 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45775/50710 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

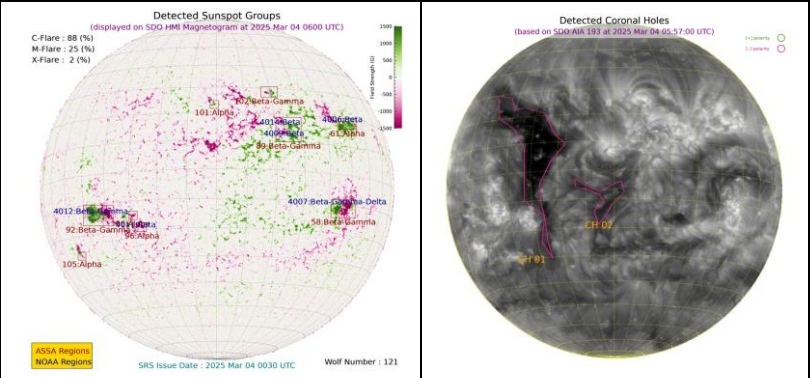
<b>Sunspot Number (SN)</b>	99
<b>Solar radio flux (F10.7)</b>	145 sfu
<b>Solar wind speed</b>	485.8 km/s (varied in the past 24 hrs between 292 & 766 km/s)
<b>Solar x-ray flares</b>	C1.8 (max flare in the past 24 hrs (C3, 0052 UT))
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+8.11 nT (varied in the past 12 hrs between +3.8 nT & +7.93 nT) +3.45 nT (varied in the past 12 hrs between -3.46 nT & +5.28 nT)

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

**Daily Sun: 4 March 2025**

There are two active regions AR4007 and AR4012 present on the Sun capable of producing strong M and X-class solar flares having chances of 25% and 2% respectively.

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



**DISCUSSION:**

Solar activity is expected to be at low to moderate levels. In case of more M/X-class solar flares, minor to moderate levels radio blackouts may be observed. Low to moderate solar wind and quiet to unsettled geomagnetic activity is expected. HF conditions are normal.

**Credits:**

Solar conditions courtesy to SOHO, DSCOVR and GOES-16 missions.  
 NOAA SWPC is acknowledged for solar radio flux conditions.  
 Korean Space Weather Centre is acknowledged for solar disk and coronal hole images.

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

**RSG SCALES**

<b><u>Radio Blackouts</u></b>				
Minor	Moderate	Strong	Severe	Extreme
<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>	<b>R5</b>

<b><u>Solar Radiation Storms</u></b>				
Minor	Moderate	Strong	Severe	Extreme
<b>S1</b>	<b>S2</b>	<b>S3</b>	<b>S4</b>	<b>S5</b>

<b><u>Geomagnetic Storms</u></b>				
Minor	Moderate	Strong	Severe	Extreme
<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>G4</b>	<b>G5</b>