

# Daily Space Weather Summary (SUPARCO)

Monday, September 01, 2025, 14:44 PST



Radio Blackouts			Solar Radiation Storms			Geomagnetic Storms		
-24 Hr	Current	Predicted	-24 Hr	Current	Predicted	-24 Hr	Current	Predicted
R0 – R1	R0 / R1	R1 – R2	S0	S0	S0	G0	G0	G2 – G3

## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	12.8 MHz
Virtual Height of F2 layer (h`F2)	340 km
Total Electron Content (TEC)	72 TECU

### Maximum Usable Frequency (MUF) and Optimum Traffic Frequency (FOT) for various distances

Distance (Km)	100	200	400	600	800	1000	1500	3000
MUF (MHz)	13.0	13.4	17.6	20.4	23.2	25.4	27.7	30.2
FOT (MHz)	11.1	11.4	15.0	17.3	19.7	21.6	23.5	25.7

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

## LOCAL GEOMAGNETIC CONDITIONS

K-index	2 (Quiet)
Total Field (F) (Son/Isb)	45770/50714 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

Sunspot Number (SN)	188
Solar radio flux (F10.7)	217 sfu
Solar wind speed	391.6 km/s (varied in the past 24 hrs between 384 & 499 km/s)
Solar x-ray flares	C2.3 (max flare in the past 24 hrs (C6, 1826 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+5.07 nT (varied in the past 12 hrs between +4.73 nT & +6.54 nT) -0.17 nT (varied in the past 12 hrs between -4.98 nT & +2.34 nT)

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

There is one active region AR4197 present on the Sun capable of producing strong M and X-class solar flares having chances of 32% and 6% respectively.

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

Solar activity is expected to be at low to moderate levels. In case of M/X-class solar flares, minor to moderate level radio blackouts may be observed. A CME is expected to hit Earth today in late hours which may cause moderate to strong (G2–G3) levels geomagnetic storms. Moderate to slightly elevated solar wind speed is expected to prevail due to the impact of CME. Quiet to disturbed levels of geomagnetic activity is expected. HF conditions disruption may be expected tomorrow i.e., 2 Sep, 2025.

*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**

<u><i>Radio Blackouts</i></u>				
Minor R1	Moderate R2	Strong R3	Severe R4	Extreme R5
<u><i>Solar Radiation Storms</i></u>				
Minor S1	Moderate S2	Strong S3	Severe S4	Extreme S5
<u><i>Geomagnetic Storms</i></u>				
Minor G1	Moderate G2	Strong G3	Severe G4	Extreme G5