

Daily Space Weather Summary (SUPARCO)

Thursday, November 13, 2025, 14:54 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	G2 – G1	G1	G1 – G2

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	14.0 MHz
Virtual Height of F2 layer (h`F2)	285 km
Total Electron Content (TEC)	88 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)	14.2	14.8	17.0	20.1	23.4	26.9	34.8	39.6
FOT (MHz)	12.1	12.6	14.5	17.1	19.9	22.9	29.6	33.7

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	5 (Storm)
Total Field (F) (Son/Isb)	45770/50714 nT

The local geomagnetic field is disturbed (Storm) at the moment.

LATEST SOLAR CONDITIONS

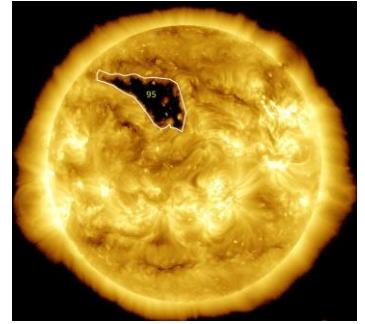
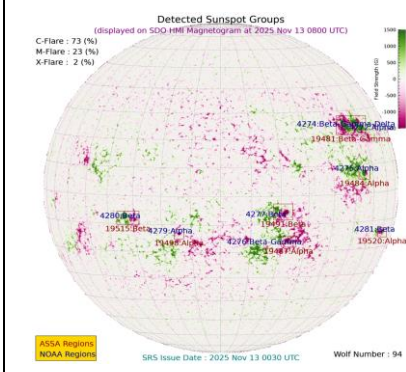
Sunspot Number (SN)	150
Solar radio flux (F10.7)	168 sfu
Solar wind speed	826.6 km/s (varied in the past 24 hrs between 273 & 999 km/s)
Solar x-ray flares	C1.3 (max flare in the past 24 hrs (C6, 0334 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+12.2 nT (varied in the past 12 hrs between +12.52 nT & +22.47 nT) +5.24 nT (varied in the past 12 hrs between -16.56 nT & +13.78 nT)

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

Daily Sun: 13 November 2025

There are two active regions AR4274 and AR4276 present on the Sun capable of producing strong M and X-class solar flares having chances of 34% and 7% respectively.

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



DISCUSSION:

Solar activity is expected to be at moderate levels. Multiple M/X-class solar flares, occurred from the regions present on the solar disk causing R1-R2 levels HF radio blackouts. In case of more M/X-class solar flares, minor to moderate level HF radio blackouts may be observed. Three effective CMEs (coronal mass ejection) strike Earth causing G2-G4 (Moderate to Severe) levels of geomagnetic storms. Moderate to slightly elevated solar wind speed is expected to prevail due to the effect of CME (coronal mass ejection). Geomagnetic activity is expected to be at unsettled to disturbed levels. 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

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