

Daily Space Weather Summary (SUPARCO)

Tuesday, November 11, 2025, 03:20 PST



Radio Blackouts			Solar Radiation Storms			Geomagnetic Storms		
-24 Hr	Current	Predicted	-24 Hr	Current	Predicted	-24 Hr	Current	Predicted
R2 – R3	R1 – R2	R2 – R3	S0	S0	S0	G0 / G1	G0	G2 – G3

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	13.2 MHz
Virtual Height of F2 layer (h`F2)	210 km
Total Electron Content (TEC)	80 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)	13.4	15.3	18.2	21.8	25.7	31.4	38.2	43.2
FOT (MHz)	11.4	13.1	15.5	18.5	21.8	26.7	32.5	36.7

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	3 (Quiet)
Total Field (F) (Son/Isb)	45705/50710 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

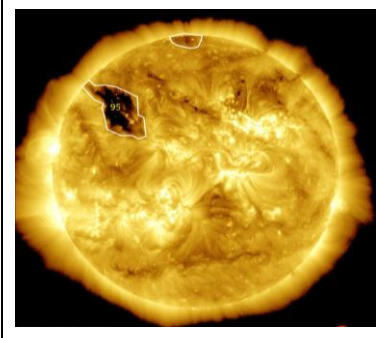
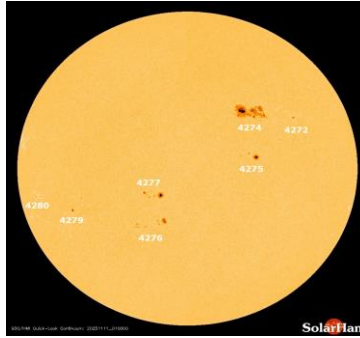
Sunspot Number (SN)	128
Solar radio flux (F10.7)	180 sfu
Solar wind speed	445.7 km/s (varied in the past 24 hrs between 420 & 589 km/s)
Solar x-ray flares	C2.8 (max flare in the past 24 hrs (M9, 1000 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+6.91nT (varied in the past 12 hrs between +6.5 nT & +7.13 nT) -4.39 nT (varied in the past 12 hrs between -6.51 nT & +3.75 nT)

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

Daily Sun: 11 November 2025

There are two active regions AR4274 and AR4276 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 be at high levels. Multiple M/X-class solar flares, occurred from the regions mentioned above causing R1-R3 levels HF radio blackouts. Yesterday, an X1.2-class solar flare occurred causing R3 (Strong) level HF radio blackouts on the day lit side of Earth, which lasted for 45 minutes in Pakistan as observed by ionospheric sounder. HF operators may have experienced mild duration of blackout as well as loss of signals at frequencies between 3-30 MHz during this time. A CME (coronal mass ejection) arrival is expected which may cause G2-G3 (Moderate to Strong) levels geomagnetic storm within the next 24 hours. Moderate to slightly elevated levels of solar wind speed is expected to prevail due to the arrival of CME (coronal mass ejection). Enhanced HF conditions are expected.

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

