

Daily Space Weather Summary (SUPARCO)

Monday, January 19, 2026, 14:40 PST



Radio Blackouts			Solar Radiation Storms			Geomagnetic Storms		
-24 Hr	Current	Predicted	-24 Hr	Current	Predicted	-24 Hr	Current	Predicted
R1 – R2	R0	R1 / R2	S1 – S2	S1 – S2	S0 / S1	G0	G0	G1 / G2

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	11.4 MHz
Virtual Height of F2 layer (h`F2)	290 km
Total Electron Content (TEC)	68 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)	11.6	12.1	14.0	16.6	19.5	22.4	29.1	32.2
FOT (MHz)	9.9	10.3	11.9	14.1	16.6	19.0	24.7	27.4

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (Son/Isb)	45703/50718 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

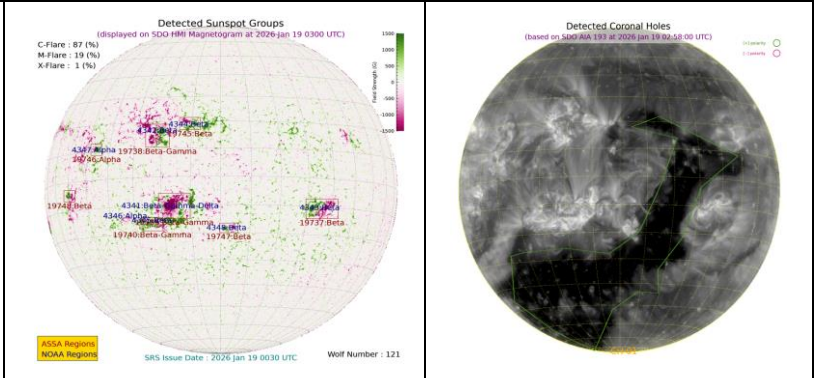
Sunspot Number (SN)	140
Solar radio flux (F10.7)	148 sfu
Solar wind speed	368.4 km/s (varied in the past 24 hrs between 356 & 650 km/s)
Solar x-ray flares	C2.0 (max flare in the past 24 hrs (X1, 1809 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+8.02 nT (varied in the past 12 hrs between +7.27 nT & +8.67 nT) -1.64 nT (varied in the past 12 hrs between -3.96 nT & +2.49 nT)

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

Daily Sun: 19 January 2026

There is one active region AR4341 present on the Sun capable of producing strong M and X-class solar flares having chances of 35% and 12% respectively.

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



DISCUSSION:

Solar activity is expected to be at moderate to high levels. Multiple M/X-class solar flares, occurred from the regions present on the solar limb 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. Moderate to slightly elevated levels of solar wind speed is expected to prevail due to the effect of coronal hole high speed stream (CH HSS). Unsettled to disturbed levels of geomagnetic activity is expected. HF conditions are expected to be 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 R1	Moderate R2	Strong R3	Severe R4	Extreme R5
<u>Solar Radiation Storms</u>				
Minor S1	Moderate S2	Strong S3	Severe S4	Extreme S5
<u>Geomagnetic Storms</u>				
Minor G1	Moderate G2	Strong G3	Severe G4	Extreme G5