

3-day Space Weather Conditions (SUPARCO)

Friday, January 16, 2026, 14:40 PST

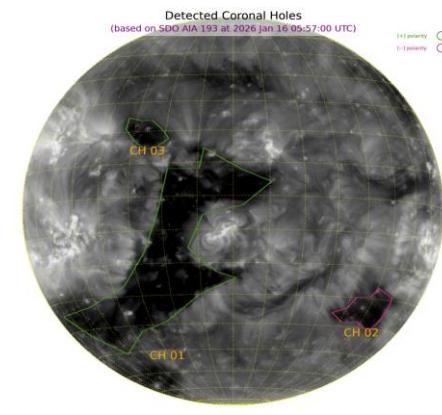
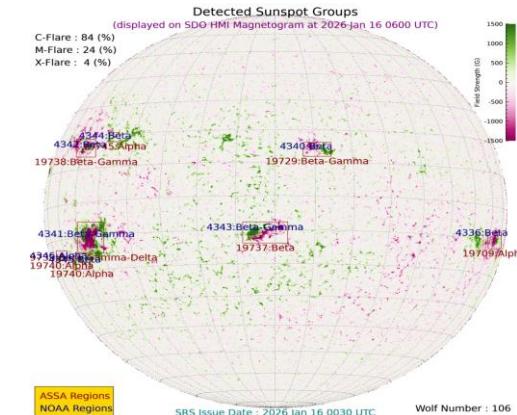


Radio Blackouts			Solar Radiation Storms			Geomagnetic Storms		
-24 Hr	Current	Predicted	-24 Hr	Current	Predicted	-24 Hr	Current	Predicted
R0 / R1	R0	R1 – R2	S0	S0	S0	G0	G0	G0 / G1

Daily Sun: 16 January 2026

There are two active regions AR4341 and AR4343 present on the Sun capable of producing strong M and X-class solar flares having chances of 40% and 5% respectively.

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



2-Day Conditions

- Solar activity is expected to be at low to moderate levels.
- In case of M/X-class solar flares, minor to moderate level HF radio blackouts may be observed.
- Moderate to slightly elevated levels of solar wind speed are expected to prevail due to the impact of coronal hole high speed stream (CH HSS).
- Quiet to unsettled levels of geomagnetic activity is expected over the weekend.
- Normal ionospheric conditions are expected for the next 2 days. It is advised to use the frequency ranges mentioned in the ionospheric section.

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

ANNEXURE

DEFINITIONS OF TERMINOLOGIES USED IN THIS SUMMARY	
foF2	Maximum frequency of F2-layer of the ionosphere
h'F2	Virtual height of the F2-layer
MUF	Maximum usable frequency for 3000 km
K-index	Local index defining geomagnetic conditions
Declination	Planetary A index defining geomagnetic conditions, predicted value during geomagnetic unsettled Conditions
F	Magnitude of the total geomagnetic field vector (unit in nano Teslas)
SON, difference	Sonmiani Geomagnetic Observatory mean value, <u>difference limit</u> from night time value of quiet conditions: 25-30 nT, max: 260 nT
ISB	Islamabad Geomagnetic Observatory mean value
SN	Relative sunspot numbers
Vsw	Solar Wind Speed (km/s)
F10.7	Solar radio flux at 2.8 GHz (10.7 cm wavelength)
sfu	Solar flux unit (defines the solar radio 10.7 cm flux)
Solar Flare	Could be B, C, M and X depending upon the intensity of x-rays being emitted (each type has further 10 classes based on amount of energy released by the flare)
IMF	Interplanetary magnetic field (the source of which is the Sun)
Bt	Total IMF (unit in Nano Teslas)
Bz	Vertical component of IMF (could be north/upward/positive or south/downward/negative) (unit in nano Teslas)
AR	Active Regions on the sun currently in view
CME	Coronal Mass Ejection
CH	Coronal Hole
KASI	Korean Astronomy & Space Science Institute
SWFs	Short-wave fadeouts, caused by M/X class flares on the day lit side of the hemisphere absorbing lower Frequencies and hampering HF communication.
SSN-predicted	Smooth Sunspot Number-it is an estimated value using a mathematical relation to forecast it.

RSG SCALES

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

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

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