

Daily Space Weather Summary (SUPARCO)

Monday, January 30, 2023, 12:49 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	9.8 MHz							
Virtual Height of F2 layer (h`F2)	265 km							
Total Electron Content (TEC)	45 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)	10.0	10.5	11.9	13.9	16.0	18.9	23.0	28.2
FOT (MHz)	8.5	8.9	10.1	11.8	13.6	16.1	20.0	24.0

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	1 (Quiet)
Total Field (F) (Son/Isb)	45520/50080 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	80
Solar radio flux (F10.7)	137 sfu
Solar wind speed	415 km/sec (varied in the past 24 hrs between 415 & 520 km/s)
Solar x-ray flares	B 9.5 (max flare in the past 24 hrs: (C 2.0, 0607 UT Jan 30)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	4.3 nT (varied in the past 12 hrs between 2.1 nT & 5.8 nT) -1.4 nT (varied in the past 12 hrs between -3.5 nT & 4.6 nT)

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

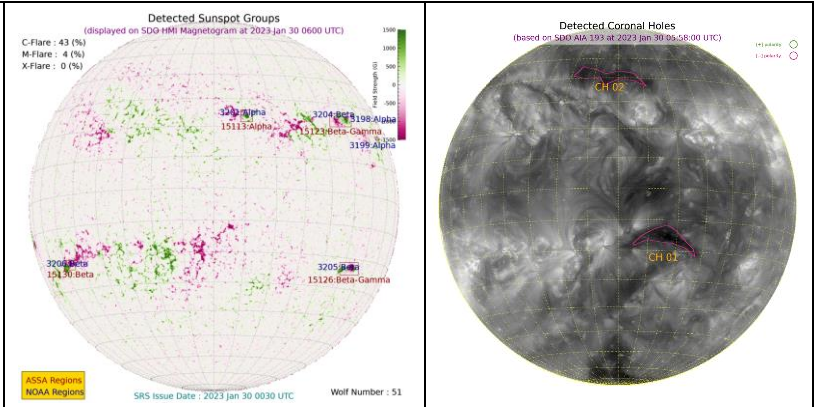
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

Notes: Credits: www.spaceweather.go.kr, www.sws.bom.gov.au, www.spaceweather.com, www.solen.info

Daily Sun: 30 January 2023

There are no active regions present on the Sun capable of producing strong solar flares.

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



DISCUSSION:

Solar activity is expected to be at moderate levels. In case of solar flares, shortwave fadeouts are possible. Solar wind speed is expected to be moderate. Geomagnetic activity is expected to be mostly quiet. HF conditions are normal.