Daily Space Weather Summary (SUPARCO)

Wednesday, December 27, 2023, 12:38 PST

SUPARCO

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	10.5 MHz
Virtual Height of F2 layer (h`F2)	290 km
Total Electron Content (TEC)	43 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)	10.7	11.3	12.5	14.4	16.6	18.9	24.0	27.2
FOT (MHz)	9.1	9.1	10.6	12.4	14.1	16.1	20.4	23.1

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)	45613/50623 nT

The local geomagnetic field is quiet at the moment.

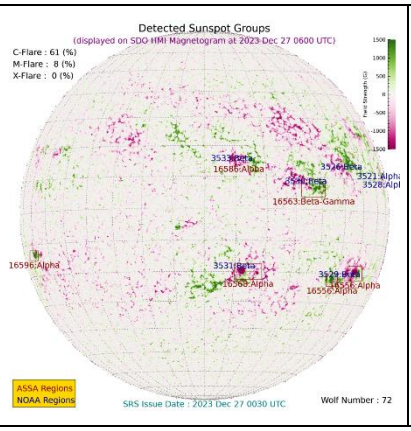
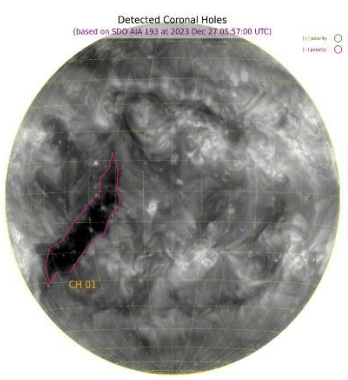
LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	94
Solar radio flux (F10.7)	154 sfu
Solar wind speed	476.0 km/s (varied in the past 24 hrs between 409 & 541 km/s)
Solar x-ray flares	B9.6 (max flare in the past 24 hrs (C3, 0926 UT)
Interplanetary Magnetic Field (IMF) **Total Field (Bt)** **Z Component of Field (Bz)**	+3.0 nT (varied in the past 12 hrs between +3.6 nT & +4.8 nT) -0.5 nT (varied in the past 12 hrs between -2.9 nT & +3.6 nT)

Solar conditions are at low 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: 27 December 2023

There is no active region 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 low levels. In case of solar flares, shortwave fadeouts may be observed. Low to moderate solar wind speed and quiet to unsettled geomagnetic activity is expected. HF conditions are normal.