Daily Space Weather Summary (SUPARCO)

Thursday, January 18, 2024, 12:07 PST

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	7.2 MHz
Virtual Height of F2 layer (h`F2)	254 km
Total Electron Content (TEC)	32 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)	7.4	7.7	8.8	10.4	12.2	13.8	17.4	21.1
FOT (MHz)	6.3	6.5	7.5	8.8	10.4	11.7	14.8	18.0

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

LOCAL GEOMAGNETIC CONDITIONS	
K-index	0 (Quiet)
Total Field (F) (Son/Isb)	45618/50628 nT

The local geomagnetic field is quiet at the moment.

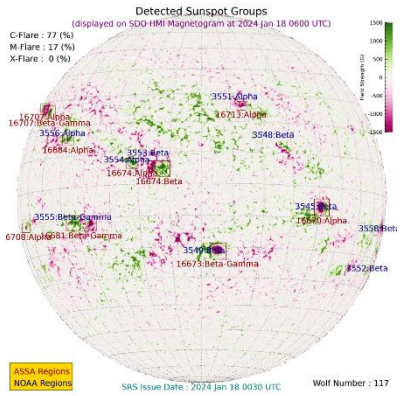
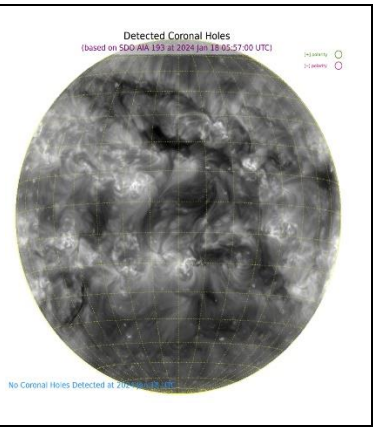
LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	158
Solar radio flux (F10.7)	174 sfu
Solar wind speed	363.0 km/s (varied in the past 24 hrs between 291 & 482 km/s)
Solar x-ray flares	C1.0 (max flare in the past 24 hrs (C5, 0408 UT)
Interplanetary Magnetic Field (IMF) **Total Field (Bt)** **Z Component of Field (Bz)**	+5.8 nT (varied in the past 12 hrs between +2.1 nT & +8.3 nT) -5.4 nT (varied in the past 12 hrs between -2.8 nT & +3.5 nT)

Solar conditions are at low levels with background X-ray flux at C-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: 18 January 2024

There is one active region AR3555 present on the Sun capable of producing strong C and M-class solar flares having chances of 77% and 17% respectively. No 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 solar wind speed and quiet geomagnetic activity is expected. HF conditions are slightly enhanced.