Daily Space Weather Summary (SUPARCO)

Monday, January 22, 2024, 13:27 PST

SUPARCO

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	8.2 MHz
Virtual Height of F2 layer (h`F2)	278 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)	8.4	8.7	9.3	11.4	14.7	17.1	20.2	24.7
FOT (MHz)	7.1	7.4	8.0	9.7	12.5	14.5	17.2	21.0

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.

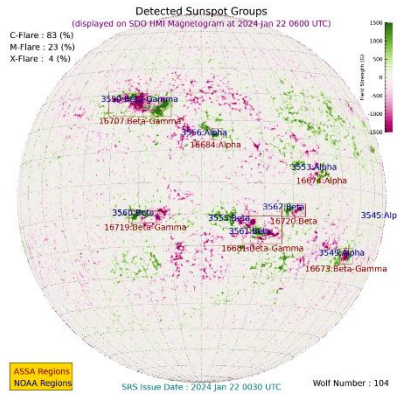
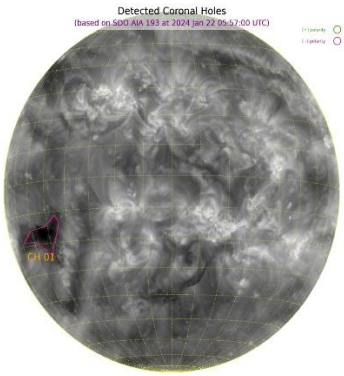
LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	150
Solar radio flux (F10.7)	179 sfu
Solar wind speed	416.1 km/s (varied in the past 24 hrs between 329 & 471 km/s)
Solar x-ray flares	C2.7 (max flare in the past 24 hrs (M1, 0622 UT)
Interplanetary Magnetic Field (IMF) **Total Field (Bt)** **Z Component of Field (Bz)**	+5.2 nT (varied in the past 12 hrs between +5.2 nT & +6.8 nT) -4.5 nT (varied in the past 12 hrs between -4.3 nT & +4.5 nT)

Solar conditions are at low levels with background X-ray flux at C-class level.

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

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

Daily Sun: 22 January 2024

There is one active region AR3559 present on the Sun capable of producing strong M and X-class solar flares having chances of 23% and 4% respectively. 01 Coronal Hole (CH) is detected on the solar disk.		

DISCUSSION:

Solar activity is expected to be at low to moderate 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.