

Daily Space Weather Summary (SUPARCO)

Wednesday, October 12, 2022, 11:56 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	11.6 MHz							
Virtual Height of F2 layer (h`F2)	253 km							
Total Electron Content (TEC)	58 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)	11.8	12.4	14.4	17.1	20.0	22.0	29.3	34.7
FOT (MHz)	10.0	10.5	12.2	14.5	17.0	18.7	24.9	29.5

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (Son/Isb)	45534/50044 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	72
Solar radio flux (F10.7)	150 sfu
Solar wind speed	385.7 km/sec (varied in the past 24 hrs between 372 & 628 km/s)
Solar x-ray flares	B8.4 (max flare in the past 24 hrs: (M1, 1052 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	3.4 nT (varied in the past 12 hrs between 2.9 nT & 3.5 nT) -2.2 nT (varied in the past 12 hrs between -2.2 nT & 0.2 nT)

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

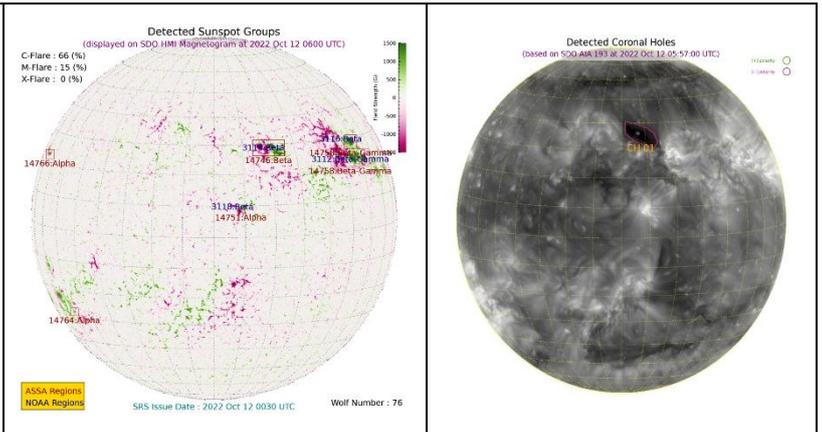
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 12 October 2022

There is one active region AR3112 present on the Sun capable of producing strong C and M-class solar flares having chances of 66% and 15% respectively.

01 Coronal Hole (CH) is detected on the solar disk.



DISCUSSION:

Solar activity is expected to remain at low to moderate levels. Short wave fadeouts will be observed in case of M/X-class solar flares. Low solar wind speed and quiet geomagnetic activity is expected to prevail. HF conditions are enhanced.