

Daily Space Weather Summary (SUPARCO)

Tuesday, October 11, 2022, 12:43 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	13.6 MHz							
Virtual Height of F2 layer (h`F2)	275 km							
Total Electron Content (TEC)	50 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)	13.8	14.5	16.7	19.9	23.3	26.8	34.7	39.2
FOT (MHz)	11.7	12.3	14.2	16.9	19.8	22.8	29.5	33.3

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	2 (Quiet)
Total Field (F) (Son/Isb)	45505/50010 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	134
Solar radio flux (F10.7)	161 sfu
Solar wind speed	453 km/sec (varied in the past 24 hrs between 445 & 621 km/s)
Solar x-ray flares	B 9.2 (max flare in the past 24 hrs: (M 2.0, 1628 UT Oct 10)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	4.38 nT (varied in the past 12 hrs between 3.9 nT & 4.4 nT) -1.4 nT (varied in the past 12 hrs between -2.0 nT & +0.6 nT)

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

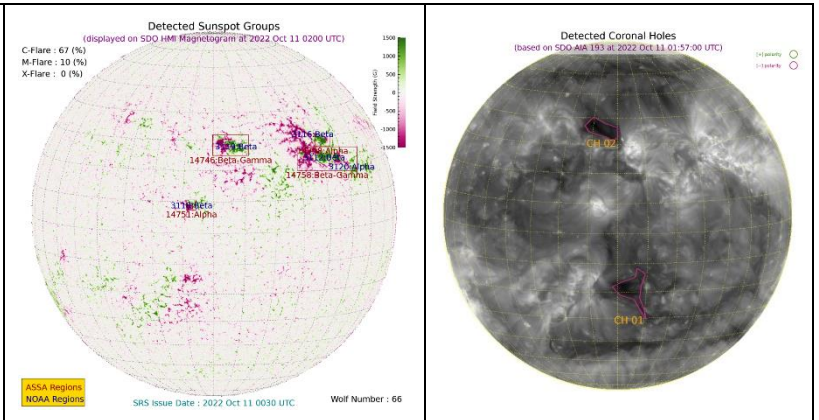
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 11 October 2022

There is no active region present on the Sun capable of producing strong solar flares.

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



DISCUSSION:

Solar activity is expected to be low with a chance for M-class flares. In case of solar flares, shortwave fadeouts are possible. The solar wind speed is expected to continue to decline and quiet to unsettled geomagnetic activity is expected due to waning effect of CH HSS. HF conditions are enhanced.