

Daily Space Weather Summary (SUPARCO)

Monday, September 12, 2022, 12:20 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	12.9 MHz							
Virtual Height of F2 layer (h`F2)	320 km							
Total Electron Content (TEC)	30 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)	13.1	13.5	15.1	17.1	19.5	22.1	27.8	33.8
FOT (MHz)	11.1	11.5	12.8	14.5	16.6	18.8	23.6	28.7

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)	45576/50086 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	113
Solar radio flux (F10.7)	152 sfu
Solar wind speed	398.8 km/s (varied in the past 24 hrs between 398 & 606 km/s)
Solar x-ray flares	C3.2 (max flare in the past 24 hrs: C6, 2228 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	4.7 nT (varied in the past 12 hrs between 4.2 nT & 5.1 nT) 0.1 nT (varied in the past 12 hrs between -1.7 nT & 0.8 nT)

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

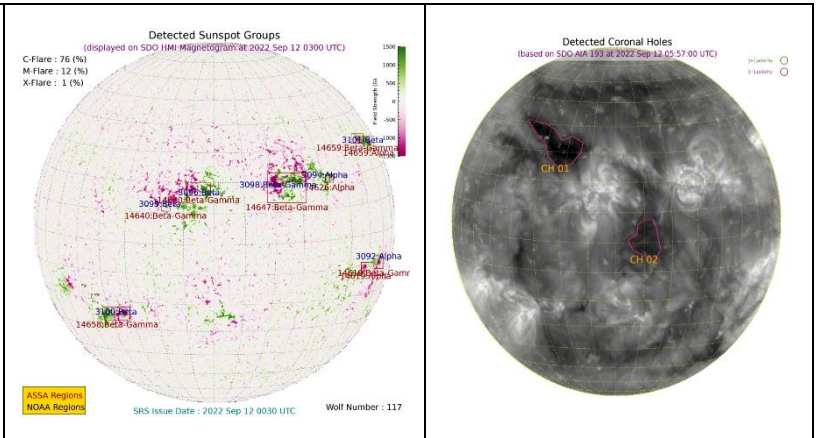
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 12 September 2022

There is one active region AR3098 present on the Sun capable of producing strong C and M-class flares having chances of 76% and 12% respectively.

02 Coronal Holes (CHs) are detected on the solar disk.



DISCUSSION:

Solar activity is expected to remain at moderate levels. In case of solar flares, short wave fadeouts may be observed. Low solar wind speed and quiet geomagnetic activity is expected. Local HF conditions are enhanced.