

Daily Space Weather Summary (SUPARCO)

Tuesday, June 21, 2022, 13:23 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	9.7 MHz							
Virtual Height of F2 layer (h`F2)	403 km							
Total Electron Content (TEC)	35 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)	9.8	10.0	10.8	11.9	13.3	14.7	18.1	22.4
FOT (MHz)	8.3	8.5	9.2	10.1	11.3	12.5	15.4	19.0

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

LOCAL GEOMAGNETIC CONDITIONS

K-Index	1 (Quiet)
Total Field (F) (SON/ISB)	45102 /50112 nT

The local geomagnetic field is quite at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	112
Solar radio flux (F10.7)	137 sfu
Solar wind speed	480.8 km/s (varied in the past 24 hrs between 448 & 634 km/s)
Solar x-ray flares	C1.8 (max flare in the past 24 hrs: C4 1610 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	6.6 nT (varied in the past 12 hrs between 4.4 nT & 6.6 nT) -2.2 nT (varied in the past 12 hrs between -1.9 nT & 2.5 nT)

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

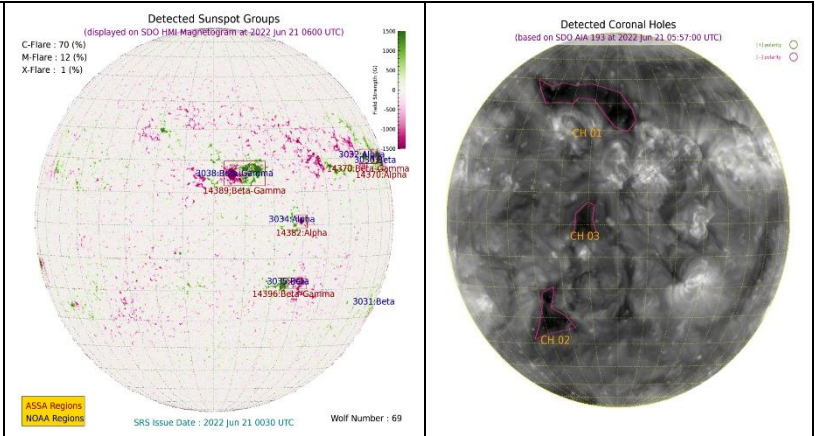
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 21 June 2022

There is one active region AR3038 present on the Sun capable of producing strong C and M-Class solar flares having chances of 70% and 12% respectively.

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



DISCUSSION:

Solar activity is expected to remain at moderate to high levels. Minor to moderate radio blackouts may be observed in case of M-class solar flares. Today solar wind speed will be on a declining side due to waning coronal hole effects. Quiet geomagnetic activity is expected. Local HF conditions are normal.