

Daily Space Weather Summary (SUPARCO)

Wednesday, June 15, 2022, 13:03 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	9.4 MHz							
Virtual Height of F2 layer (h`F2)	438 km							
Total Electron Content (TEC)	37 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)	9.5	9.7	10.3	11.3	12.4	13.7	16.9	20.4
FOT (MHz)	8.0	8.2	8.8	9.6	10.7	11.8	14.8	17.3

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	4 (Unsettled)
Total Field (F) (Son/Isb)	45103/50113 nT

The local geomagnetic field is unsettled at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	121
Solar radio flux (F10.7)	146 sfu
Solar wind speed	567.7 km/sec (varied in the past 24 hrs between 290 & 332 km/s)
Solar x-ray flares	C1.0 (max flare in the past 24 hrs: C8 1420 UT Jun14)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	11.8 nT (varied in the past 12 hrs between 5.4 nT & 7.2 nT) 3.6 nT (varied in the past 12 hrs between -1.8 nT & 2.3 nT)

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

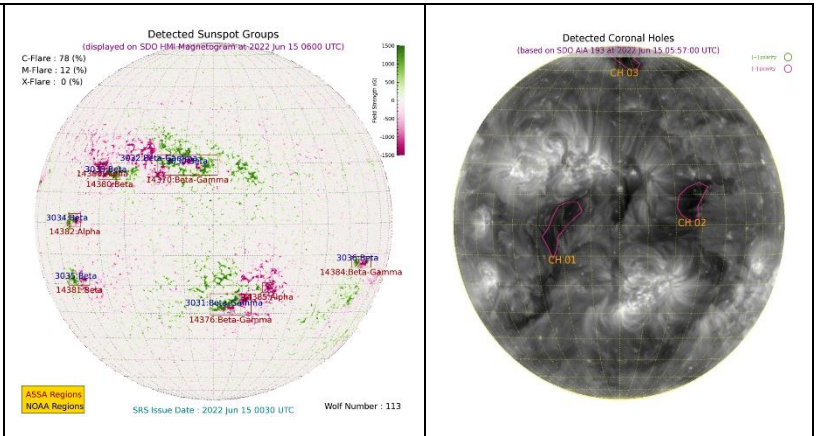
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 15 June 2022

There is one active region AR3032 present on the Sun capable of producing strong C and M-Class solar flares having chances of 78% 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 solar flares. Solar wind speed is expected to remain elevated due to the combined effect of coronal hole and CME impact. Unsettled geomagnetic activity (G-1) is also expected due to the arrival of CME associated with M-Class flare occurred on 13th June. Local HF conditions are normal. MUF degradation may be expected today due to the impact of geomagnetic storm.