

Daily Space Weather Summary (SUPARCO)

Thursday, March 31, 2022, 12:36 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	16.6 MHz							
Virtual Height of F2 layer (h`F2)	315 km							
Total Electron Content (TEC)	55 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)	16.8	17.1	19.3	22.0	25.2	28.8	36.0	44.6
FOT (MHz)	14.3	14.5	16.4	18.7	21.4	24.5	30.6	37.9

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)	45550/50062 nT

The local geomagnetic field is quite at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	73
Solar radio flux (F10.7)	151 sfu
Solar wind speed	582.2 km/s (varied in the past 24 hrs between 368 & 597 km/s)
Solar x-ray flares	C1.1 (max flare in the past 24 hrs: X1 1737 UT Mar 30)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	10.4 nT (varied in the past 12 hrs between 3.8 nT & 15.9 nT) 6.2 nT (varied in the past 12 hrs between -5.7 nT & 6.9 nT)

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

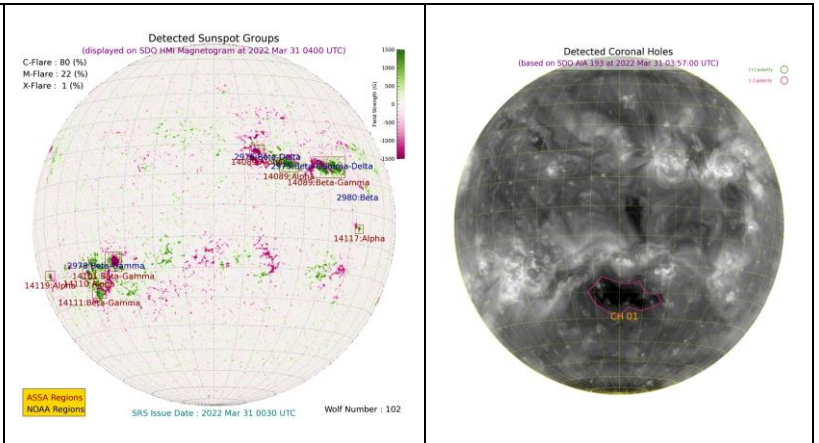
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 31 March 2022

There are three active regions AR2975, AR2976 and AR2978 present on the Sun capable of producing C and M-Class flares. Slight chances of isolated X-Class flares from active region AR2975 are present.

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



DISCUSSION:

Solar activity is expected to remain at moderate levels. Due to the presence of active regions C, M and isolated X-Class flares may be witnessed. Radio blackouts may be experienced in case of X-ray flares. Moderate solar wind speed is expected due to coronal hole and CME impact. Geomagnetic activity is expected to be quiet to active. Local HF conditions are enhanced.