

Daily Space Weather Summary (SUPARCO)

Wednesday, March 20, 2024, 12:00 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	10.5 MHz							
Virtual Height of F2 layer (h`F2)	290 km							
Total Electron Content (TEC)	43 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)	10.7	11.3	12.5	14.4	16.6	18.9	24.0	27.2
FOT (MHz)	9.1	9.1	10.6	12.4	14.1	16.1	20.4	23.1

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	0 (Quiet)
Total Field (F) (Son/Isb)	45532/50542 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	123
Solar radio flux (F10.7)	169 sfu
Solar wind speed	368.7 km/s (varied in the past 24 hrs between 358 & 416 km/s)
Solar x-ray flares	C1.5 (max flare in the past 24 hrs (C8, 2332 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+4.9 nT (varied in the past 12 hrs between +3.2 nT & +5.6 nT) -0.3 nT (varied in the past 12 hrs between -3.1 nT & +3.0 nT)

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

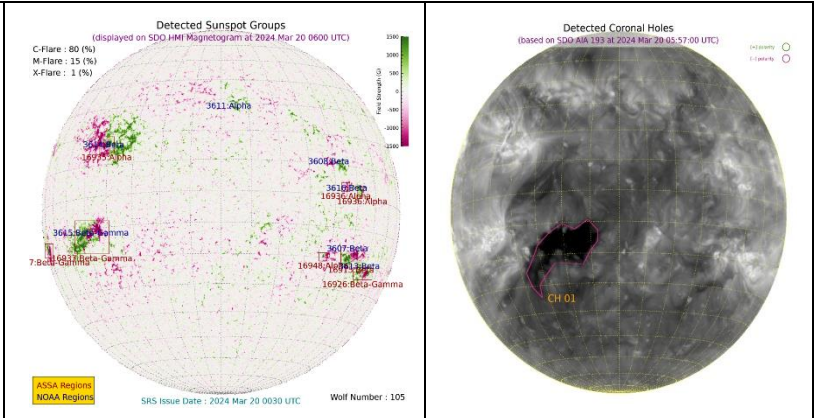
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 20 March 2024

There is one active region AR3615 present on the Sun capable of producing strong M and X-class solar flares having chances of 15% and 1% respectively.

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



DISCUSSION:

Solar activity is expected to be at low to moderate levels. Multiple M-class solar flares, have already occurred from the region mentioned. In case of more M/X-class solar flares, shortwave fadeouts may be observed. Low solar wind speed and quiet geomagnetic activity is expected. HF conditions are normal.