

Daily Space Weather Summary (SUPARCO)

Monday, April 25, 2022, 12:11 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	13.4 MHz							
Virtual Height of F2 layer (h`F2)	338 km							
Total Electron Content (TEC)	42 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)	13.5	13.8	15.2	17.2	19.5	21.9	27.7	34.0
FOT (MHz)	11.5	11.7	12.9	14.6	16.6	18.6	23.5	28.9

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

LOCAL GEOMAGNETIC CONDITIONS

K-index	1 (quiet)
Total Field (F) (SON/ISB)	45579/50089 nT

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	112
Solar radio flux (F10.7)	159 sfu
Solar wind speed	455.4 km/s (varied in the past 24 hrs between 428 & 526 km/s)
Solar x-ray flares	C1.4 (max flare in the past 24 hrs: M1 0201 UT Apr 25)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	5.0 nT (varied in the past 12 hrs between 4.8 nT & 5.6 nT) 4.6 nT (varied in the past 12 hrs between 1.6 nT & 4.5 nT)

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

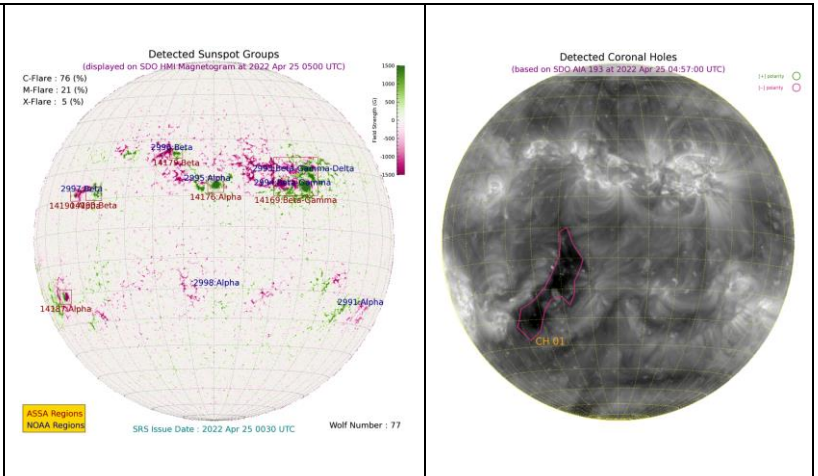
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

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

Daily Sun: 25 April 2022

There are two active regions AR2993 and AR2994 present on the Sun capable of producing strong X and M-Class solar flares having chances of 5% and 21% respectively.

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



DISCUSSION:

Solar activity is expected to remain at high levels. Low to moderate solar wind speed and quiet geomagnetic activity is expected. Local HF conditions are enhanced. Minor radio blackouts may be observed in case of solar flares.