Daily Space Weather Summary (SUPARCO)

Thursday, April 21, 2022, 12:03 PST

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	11.3 MHz
Virtual Height of F2 layer (h`F2)	350 km
Total Electron Content (TEC)	40 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)	11.4	11.7	12.8	14.3	16.2	18.1	22.8	27.6
FOT (MHz)	9.7	9.9	10.9	12.2	13.8	15.4	19.4	23.5

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

LOCAL GEOMAGNETIC CONDITIONS	
K-index	2 (Quiet)
Total Field (F) (SON/ISB)	45585/50095 nT

The local geomagnetic field is quite at the moment.

LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	80
Solar radio flux (F10.7)	160 sfu
Solar wind speed	412.5 km/s (varied in the past 24 hrs between 381 & 426 km/s)
Solar x-ray flares	C3.4 (max flare in the past 24 hrs: M9 0159 UT Apr 21)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	8.0 nT (varied in the past 12 hrs between 4.9 nT & 7.9 nT) -5.0 nT (varied in the past 12 hrs between -4.9 nT & 0.8 nT)

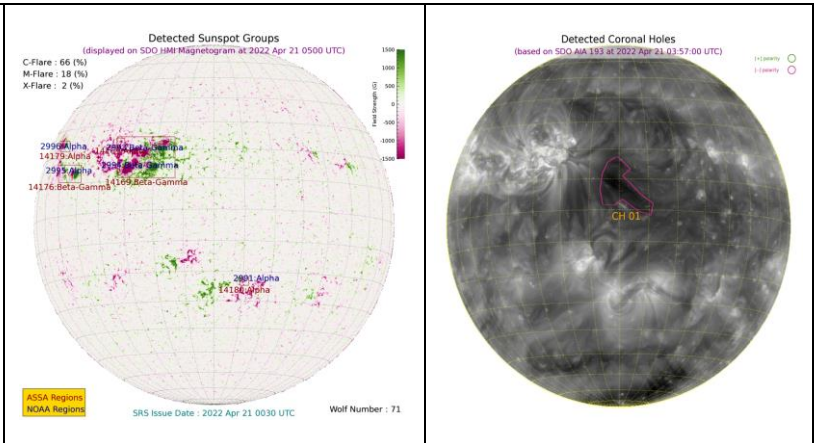Solar conditions are at moderate levels with background X-ray flux at C-class level.

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

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

Daily Sun: 21 April 2022

There are two active regions AR2993 and AR2994 present on the Sun capable of producing strong M and X-Class solar flares having chances of 18% and 2% respectively.

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

DISCUSSION:

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