Daily Space Weather Summary (SUPARCO)

Wednesday, August 17, 2022, 12:20 PST

SUPARCO

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	7.7 MHz
Virtual Height of F2 layer (h`F2)	408 km
Total Electron Content (TEC)	21 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)	7.8	8.0	8.6	9.5	10.5	11.6	15.5	17.1
FOT (MHz)	6.6	6.8	7.3	8.1	8.9	9.9	13.2	14.5

Local HF conditions are slightly depressed 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 quiet at the moment.

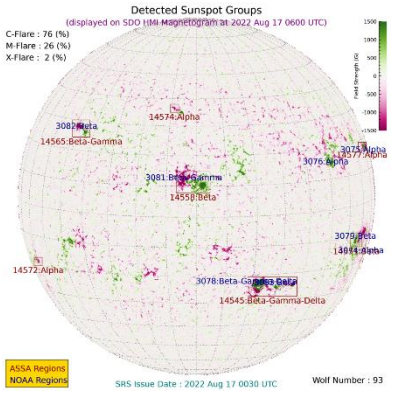
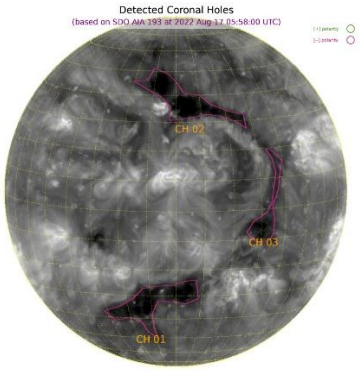
LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	119
Solar radio flux (F10.7)	129 sfu
Solar wind speed	440.4 km/sec (varied in the past 24 hrs between 349 & 481 km/s)
Solar x-ray flares	B6.1 (max flare in the past 24 hrs: (M5, 0758 UT)
Interplanetary Magnetic Field (IMF) **Total Field (Bt)** **Z Component of Field (Bz)**	14.5 nT (varied in the past 12 hrs between 3.3 nT & 18.1 nT) 6.3 nT (varied in the past 12 hrs between -3.0 nT & 8.5 nT)

Solar conditions are at moderate to high levels with background X-ray flux at B-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: 17 August 2022

There are two active regions present on the Sun out of which AR3078 is capable of producing strong M and X-Class solar flares having chances of 26% and 2% respectively. 03 Coronal Holes (CHs) are detected on the solar disk.		

DISCUSSION:

Solar activity is expected to remain at moderate to high levels. Short wave fadeouts will be observed in case of solar flares. Low to moderate solar wind speed is expected to prevail due to the presence of coronal holes. Geomagnetic activity is expected to be quiet to unsettled. HF conditions are slightly depressed.