Daily Space Weather Summary (SUPARCO)

Tuesday, May 14, 2024, 12:11 PST

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	8.2 MHz
Virtual Height of F2 layer (h`F2)	254 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)	8.4	8.7	9.8	11.4	13.2	14.8	18.4	22.4
FOT (MHz)	7.1	7.4	8.3	9.7	11.2	12.6	15.6	19.0

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

LOCAL GEOMAGNETIC CONDITIONS	
K-index	1 (Quiet)
Total Field (F) (Son/Isb)	45657/50757 nT

The local geomagnetic field is quiet at the moment.

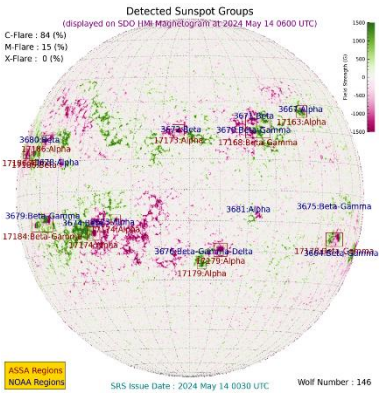
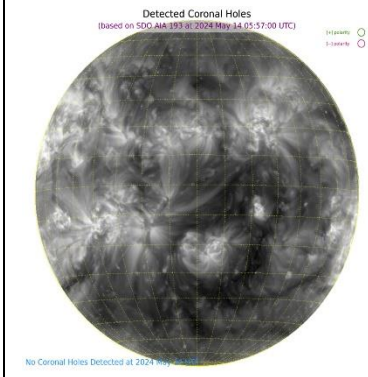
LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	207
Solar radio flux (F10.7)	215 sfu
Solar wind speed	552.7 km/s (varied in the past 24 hrs between 515 & 767 km/s)
Solar x-ray flares	C5.0 (max flare in the past 24 hrs (X1, 0209 UT)
Interplanetary Magnetic Field (IMF) **Total Field (Bt)** **Z Component of Field (Bz)**	+4.2 nT (varied in the past 12 hrs between +4.7 nT & +7.0 nT) +3.8 nT (varied in the past 12 hrs between +0.3 nT & +4.4 nT)

Solar conditions are at moderate to 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: 14 May 2024

There are five active regions AR3664, AR3670, AR3675, AR3676 and AR3679 present on the Sun capable of producing strong C and M-class solar flares having chances of 84% and 15% respectively. No Coronal Hole (CH) is detected on the solar disk.		

DISCUSSION:

Solar activity is expected to be at moderate to high levels. Multiple M and X-class solar flares, have already occurred from the regions mentioned causing radio blackouts. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Moderate to slightly elevated solar wind speed is expected to prevail. Geomagnetic activity is expected to be quiet. HF conditions are slightly depressed.