Daily Space Weather Summary (SUPARCO)

Tuesday, September 24, 2024, 12:43 PST

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	13.5 MHz
Virtual Height of F2 layer (h`F2)	363 km
Total Electron Content (TEC)	65 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)	13.6	14.0	15.3	17.1	19.3	21.6	27.3	34.4
FOT (MHz)	11.6	11.9	13.0	14.5	16.4	18.4	23.2	29.3

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)	45692/50714 nT

The local geomagnetic field is quiet at the moment.

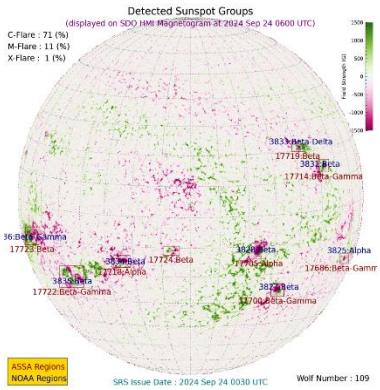
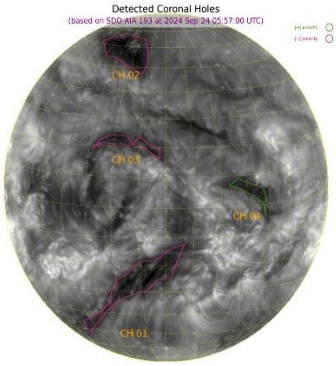
LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	224
Solar radio flux (F10.7)	167 sfu
Solar wind speed	466.6 km/s (varied in the past 24 hrs between 322 & 485 km/s)
Solar x-ray flares	C1.7 (max flare in the past 24 hrs (M1, 1456 UT)
Interplanetary Magnetic Field (IMF) **Total Field (Bt)** **Z Component of Field (Bz)**	+4.26 nT (varied in the past 12 hrs between +4.71 nT & +12.7 nT) -2.75 nT (varied in the past 12 hrs between +1.27 nT & +9.02 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: 24 September 2024

There are two active regions AR3833 and AR3836 present on the Sun capable of producing strong M and X-class solar flares having chances of 11% and 1% respectively. 04 Coronal Holes (CHs) are detected on the solar disk.		

DISCUSSION:

Solar activity is expected to be at low to moderate levels. In case of solar flares, shortwave fadeouts may be observed. Low solar wind speed and quiet geomagnetic activity is expected. HF conditions are slightly enhanced.