Daily Space Weather Summary (SUPARCO)

Monday, September 02, 2024, 12:30 PST

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)	
Critical Frequency of F2 layer (foF2)	14.4 MHz
Virtual Height of F2 layer (h`F2)	378 km
Total Electron Content (TEC)	60 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)	14.5	14.8	16.1	17.9	20.1	22.5	28.3	36.0
FOT (MHz)	12.3	12.6	13.7	15.2	17.1	19.1	24.1	30.6

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)	45664/50764 nT

The local geomagnetic field is quiet at the moment.

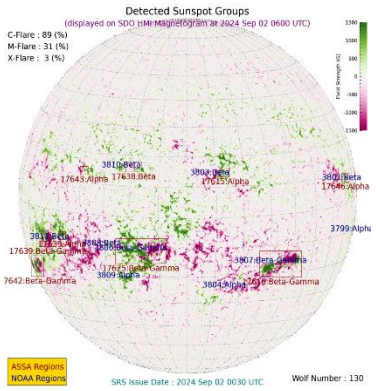
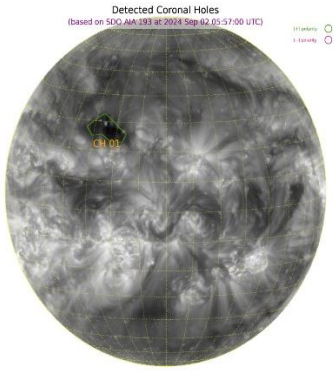
LATEST SOLAR CONDITIONS	
Sunspot Number (SN)	156
Solar radio flux (F10.7)	226 sfu
Solar wind speed	404.9 km/s (varied in the past 24 hrs between 359 & 470 km/s)
Solar x-ray flares	C4.4 (max flare in the past 24 hrs (M5, 1322 UT)
Interplanetary Magnetic Field (IMF) **Total Field (Bt)** **Z Component of Field (Bz)**	+4.97 nT (varied in the past 12 hrs between +4.71 nT & +6.22 nT) -3.69 nT (varied in the past 12 hrs between -5.08 nT & +0.8 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: 2 September 2024

There are two active regions AR3806 and AR3807 present on the Sun capable of producing strong M and X-class solar flares having chances of 31% and 3% respectively. 01 Coronal Hole (CH) is detected on the solar disk.		

DISCUSSION:

Solar activity is expected to be at low to moderate levels. Some M-class solar flares, have already occurred from the regions mentioned above. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Low to moderate solar wind speed and quiet geomagnetic activity is expected. HF conditions are enhanced.