Daily Space Weather Summary (SUPARCO)



Monday, December 18, 2023, 12:30 PST

		LOC	AL CURRENT	IONOSPHERIC	CONDITIONS (SON)		301 AR00
Critical Frequency of F2 layer (foF2)				10.0 MHz				
Virtual Height of F2 layer (h`F2)				280 km				
Total Electron Content (TEC)				40 TECU				
Maxin	num Usable	e Frequency	(MUF) and	Optimum Tra	ffic Frequenc	y (FOT) for v	various dist	ances
Distance (Km)	100	200	400	600	800	1000	1500	3000
MUF (MHz)	10.2	10.4	11.4	12.5	15.8	18.4	23.2	27.0
FOT (MHz)	8.7	8.9	9.7	10.6	13.4	15.6	19.7	23.0
Local HF con	ditions are no	ormal as comp	ared to the pre	edicted monthly	median MUF.			
			LOCAL GE	OMAGNETIC	CONDITIONS			
K-index				2 (Quiet)				
Total Field (F) (Son/Isb)				45603/50613 nT				
The local geo	omagnetic fie	ld is quiet at th	ne moment.					
			LATES	ST SOLAR CON	DITIONS			
Sunspot Number (SN)				129				
Solar radio flux (F10.7)				155 sfu				
Solar wind speed				469.1 km/s (varied in the past 24 hrs between 460 & 559 km/s)				
Solar x-ray flares				C2.1 (max flare in the past 24 hrs (M1, 2017 UT)				
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)				+11.0 nT (varied in the past 12 hrs between +7.1 nT & +11.8 nT) -9.7 nT (varied in the past 12 hrs between +3.8 nT & +11.4 nT)				
Solar conditi	ions are at lov	w to moderat	e levels with b	ackground X-ra	y flux at C-class	level.		

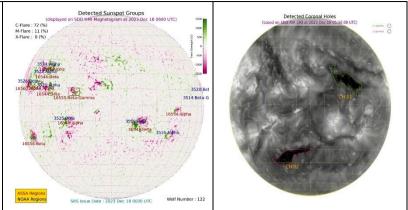
Sonmiani (SON): 25.2º N, 66.75º E, Islamabad (ISB): 33.7º N, 73.13º E

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

Daily Sun: 18 December 2023

There is one active region AR3514 present on the Sun capable of producing strong C and M-class solar flares having chances of 72% and 11% respectively.

02 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 to moderate solar wind speed is expected due to the presence of coronal holes. Geomagnetic activity is expected to be quiet. HF conditions are normal.