

Daily Space Weather Summary (SUPARCO)

Wednesday, February 20, 2019, 14:39 PST



LOCAL CURRENT IONOSPHERIC CONDITIONS OVER PAKISTAN ^a

Critical Frequency of F2 layer (foF2)	6.7 MHz							
Virtual Height of F2 layer (h`F2)	293 km							
Total Electron Content (TEC)	16 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)	6.8	7.1	8.1	9.5	11.0	12.6	16.3	22.3
FOT (MHz)	5.8	6.0	6.9	8.1	9.4	10.7	13.9	18.9

Local ionospheric conditions are fair with slightly depressed MUF conditions.

LOCAL GEOMAGNETIC CONDITIONS OVER PAKISTAN ^{ab}

K-index	1 (max K in 24 hrs: 1)
Total Field Value (F)	49860/45330 nT
Declination (D)	0.73/0.55 degrees

The local geomagnetic field is quiet at the moment.

LATEST SOLAR CONDITIONS

Sunspot Number (SN)	0
Solar radio flux (F10.7)	70 sfu
Solar wind speed	302 km/sec (varied in the past 24 hrs between 302 & 339 km/s)
Solar x-ray flares	A 0.0 (max flare in the past 24 hrs: A 9.0 0828 UT Feb 20)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	1.4 nT (varied in the past 24 hrs between 0.9 nT & 3.6 nT) +0.2 nT (varied in the past 24 hrs between -1.4 nT & +0.2 nT)

Solar conditions are at very low levels with background X-ray flux at A-class level. Local HF working frequencies are fair to normal as compared to monthly average predicted values.

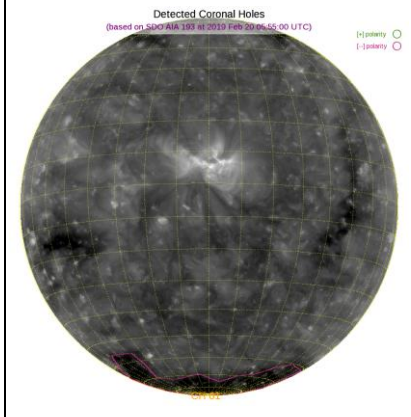
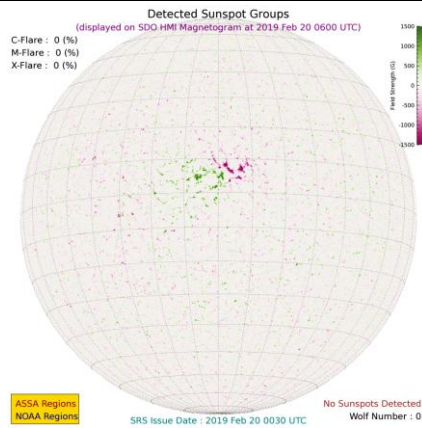
^aSonmiani (SON): 25.2° N, 66.75 E° ^bIslamabad (ISB): 33.7° N, 73.13 E°

Notes: Credits: www.spaceweather.go.kr, www.sws.bom.gov.au, www.spaceweather.com, www.solarmonitor.org

Daily Sun: 20 February 2019

Solar disk is currently spotless therefore; there are no chances of the eruption of strong solar flare(s).

At the moment, 01 Coronal Hole (CH) is detected on the southern solar limb.



DISCUSSION:

Nominal ionospheric conditions are expected to prevail. HF communication users are advised to use the frequency ranges mentioned in the ionospheric section. Solar wind speed might elevate later in the day which can cause the geomagnetic conditions to get slightly unsettled due to the influence of high speed stream from the current CH.

Very low solar activity is expected to persist.