

# Daily Space Weather Summary (SUPARCO)

Tuesday, January 29, 2019, 15:09 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS OVER PAKISTAN <sup>a</sup>

<b>Critical Frequency of F2 layer (foF2)</b>	5.9 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	273 km							
<b>Total Electron Content (TEC)</b>	16 TECU							
<b>Maximum Usable Frequency (MUF) and Optimum Traffic Frequency (FOT) for various distances</b>								
<b>Distance (Km)</b>	<b>100</b>	<b>200</b>	<b>400</b>	<b>600</b>	<b>800</b>	<b>1000</b>	<b>1500</b>	<b>3000</b>
<b>MUF (MHz)</b>	6.0	6.3	7.3	8.6	10.2	11.7	15.1	20.4
<b>FOT (MHz)</b>	5.1	5.3	6.2	7.4	8.6	9.9	12.9	17.4

Local ionospheric conditions are fair with slightly depressed MUF conditions.

## LOCAL GEOMAGNETIC CONDITIONS OVER PAKISTAN <sup>ab</sup>

<b>K-index</b>	1 (max K in 24 hrs: 1)
<b>Total Field Value (F)</b>	ISL/SON : 49858/45315 nT
<b>Declination (D)</b>	ISL/SON : 0.71/0.54 degrees

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	16
<b>Solar radio flux (F10.7)</b>	76 sfu
<b>Solar wind speed</b>	362 km/sec (varied in the past 24 hrs between 332 & 379 km/s)
<b>Solar x-ray flares</b>	B 1.0 (max flare in the past 24 hrs: B 8.0 0736 UT Jan 29)
<b>Interplanetary Magnetic Field (IMF)</b> Total Field (Bt) Z Component of Field (Bz)	3.2 nT (varied in the past 24 hrs between 2.8 nT & 3.8 nT) -2.7 nT (varied in the past 24 hrs between -2.7 nT & +1.7 nT)

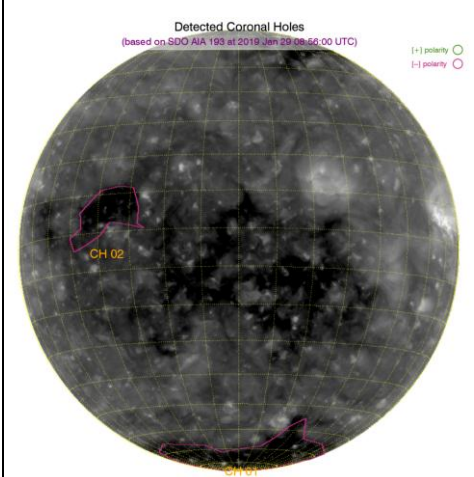
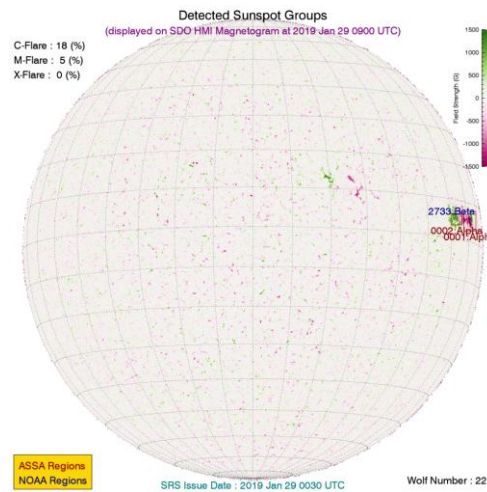
Solar conditions are at **low** levels with background X-ray flux at B-class level. Local HF working frequencies are fair to normal as compared to monthly average predicted values.

<sup>a</sup>Sonmiani (SON): 25.2° N, 66.75 E° <sup>b</sup>Islamabad (ISB): 33.7° N, 73.13 E°

Notes: Credits: [www.spaceweather.go.kr](http://www.spaceweather.go.kr), [www.sws.bom.gov.au](http://www.sws.bom.gov.au), [www.spaceweather.com](http://www.spaceweather.com), [www.solarmonitor.org](http://www.solarmonitor.org)

## Daily Sun: 29 January 2019

There is 01 Active Region (AR) on the solar disk currently having 18% and 5% chances of emitting C and M-Class solar flare. There are 02 Coronal Holes (CH) detected on the solar disk both with negative polarity.



### DISCUSSION:

Local current ionospheric conditions are expected to remain at fair levels. HF communication users are advised to use the frequency ranges mentioned in the ionospheric section. Local geomagnetic conditions are expected to remain at quiet levels.

Very low solar conditions are expected to prevail today as there are no sunspots/active regions capable of producing strong solar flares.