## Daily Space Weather Summary (SUPARCO)

Thursday, March 10, 2022, 12:25 PST

LOCAL CURRENT IONOSPHERIC CONDITIONS (SONMIANI)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Critical Frequency of F2 layer (foF2)} \& \multicolumn{5}{|l|}{9.6 MHz} <br>
\hline \multicolumn{4}{|l|}{Virtual Height of F2 layer ( $\mathbf{h}^{\text {` F2) }}$} \& \multicolumn{5}{|l|}{288 km} <br>
\hline \multicolumn{4}{|l|}{Total Electron Content (TEC)} \& \multicolumn{5}{|l|}{20 TECU} <br>
\hline \multicolumn{9}{|l|}{Maximum Usable Frequency (MUF) and Optimum Traffic Frequency (FOT) for various distances} <br>
\hline Distance (Km) \& 100 \& 200 \& 400 \& 600 \& 800 \& 1000 \& 1500 \& 3000 <br>

\hline | MUF |
| :--- |
| (MHz) | \& 9.7 \& 10.2 \& 11.6 \& 13.7 \& 16.0 \& 18.3 \& 23.7 \& 32.2 <br>


\hline | FOT |
| :--- |
| (MHz) | \& 8.3 \& 8.6 \& 9.9 \& 11.6 \& 13.6 \& 15.6 \& 20.1 \& 27.4 <br>

\hline
\end{tabular}

Local HF conditions are normal with slightly enhanced MUF as compared to the predicted monthly median values.
LOCAL GEOMAGNETIC CONDITIONS

| K-index | 1 (Quiet) |
| :---: | :---: |
| Total Field (F) (Son/Isb) | 45565/50097 nT |
| The local geomagnetic field is quite at the moment. |  |
| LATEST SOLAR CONDITIONS |  |
| Sunspot Number (SN) | 89 |
| Solar radio flux (F10.7) | 115 sfu |
| Solar wind speed | $338 \mathrm{~km} / \mathrm{sec}$ (varied in the past 24 hrs between 317 \& 506 $\mathrm{km} / \mathrm{s}$ ) |
| Solar x-ray flares | B 4.6 (max flare in the past 24 hrs: C 1.00756 UT Mar 09) |
| ```Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)``` | 4.2 nT (varied in the past 12 hrs between $2.4 \mathrm{nT} \& 4.7 \mathrm{nT}$ ) -2.7 nT (varied in the past 12 hrs between $-3.6 \mathrm{nT} \&-1.2$ nT) |

Solar conditions are at low to moderate levels with background X-ray flux at B-class level.

Sonmiani (SON): $\mathbf{2 5 . 2 ^ { \circ }} \mathbf{N}, 66.75^{\circ} \mathrm{E}$, Islamabad (ISB): $33.7^{\circ} \mathrm{N}, 73.13^{\circ} \mathrm{E}$
Notes: Credits: www.spaceweather.go.kr,www.sws.bom.gov.au,www.spaceweather.com,www.solen.info

Daily Sun: 10 March 2022

There is no active region on the Sun capable of producing strong solar flares.

01 Coronal Hole (CH) is detected on the southern solar disk.


## DISCUSSION:

Solar activity is expected to be very low with a slight chance of C-class flares. Low solar wind speed and quiet geomagnetic activity is expected. Local HF conditions are normal.

