## Daily Space Weather Summary (SUPARCO)

Monday, March 07, 2022, 12:18 PST

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Critical Frequency of F2 layer (foF2)} \& \multicolumn{5}{|l|}{9.1 MHz} <br>
\hline \multicolumn{4}{|l|}{Virtual Height of F2 layer (h`F2)} \& \multicolumn{5}{|l|}{280 km} <br>
\hline \multicolumn{4}{|l|}{Total Electron Content (TEC)} \& \multicolumn{5}{|l|}{24 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) | \& 9.2 \& 9.6 \& 10.9 \& 12.7 \& 14.7 \& 16.8 \& 21.4 \& 25.1 <br>


\hline | FOT |
| :--- |
| (MHz) | \& 7.8 \& 8.2 \& 9.3 \& 10.8 \& 12.5 \& 14.3 \& 18.2 \& 21.3 <br>

\hline
\end{tabular}

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

| K-index | 2 (Quiet) |
| :--- | :--- |
| Total Field (F) (SON/ISB) | $45561 / 50084 \mathrm{nT}$ |

The local geomagnetic field is quite at the moment.

| LATEST SOLAR CONDITIONS |  |
| :--- | :--- |
| Sunspot Number (SN) | 82 |
| Solar radio flux (F10.7) | 120 sfu |
| Solar wind speed | $481.2 \mathrm{~km} / \mathrm{s}$ (varied in the past 24 hrs between $486 \& 537$ <br> $\mathrm{~km} / \mathrm{s})$ |
| Solar x-ray flares | $\mathrm{B4.1}$ (max flare in the past 24 hrs: C1 1255 UT Mar 06) |
| Interplanetary Magnetic Field (IMF) <br> Total Field (Bt) <br> Z Component of Field (Bz) | 4.7 nT (varied in the past 12 hrs between $3.7 \mathrm{nT} \& 5.0$ <br> $\mathrm{nT})$ <br> 0.6 nT (varied in the past 12 hrs between $-2.4 \mathrm{nT} \&-0.5$ <br> $\mathrm{nT})$ |

Solar conditions are at 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: 7 March 2022

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

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


## DISCUSSION:

Solar activity is expected to remain at moderate levels. Moderate solar wind speed is expected due to the presence of a coronal hole. Geomagnetic activity is expected to be quiet. Local HF conditions are normal.

