## Daily Space Weather Summary (SUPARCO)

Thursday, March 24, 2022, 12:15 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|}{9.8 MHz} <br>
\hline \multicolumn{4}{|l|}{Virtual Height of F2 layer (h`F2)} \& \multicolumn{5}{|l|}{285 km} <br>
\hline \multicolumn{4}{|l|}{Total Electron Content (TEC)} \& \multicolumn{5}{|l|}{30 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) | \& 10.2 \& 10.6 \& 12.1 \& 14.1 \& 16.3 \& 18.6 \& 23.8 \& 30.7 <br>


\hline | FOT |
| :--- |
| (MHz) | \& 8.7 \& 9.0 \& 12.3 \& 12.0 \& 13.9 \& 15.8 \& 20.2 \& 26.1 <br>

\hline
\end{tabular}

Local HF conditions are slightly enhanced as compared to the predicted monthly median MUF.

| LOCAL GEOMAGNETIC CONDITIONS |  |
| :--- | :--- |
| K-index | 1 (Quiet) |
| Total Field (F) (SON/ISB) | $45580 / 50090 \mathrm{nT}$ |
| The local geomagnetic field is quite at the moment. |  |


| LATEST SOLAR CONDITIONS |  |
| :--- | :--- |
| Sunspot Number (SN) | 27 |
| Solar radio flux (F10.7) | 106 sfu |
| Solar wind speed | $526.8 \mathrm{~km} / \mathrm{s}$ (varied in the past 24 hrs between $343 \& 547$ <br> $\mathrm{~km} / \mathrm{s})$ |
| Solar x-ray flares | $\mathrm{B5.8}$ (max flare in the past 24 hrs: C8 0145 UT Mar 24) |
| Interplanetary Magnetic Field (IMF) | 8.0 nT (varied in the past 12 hrs between $6.9 \mathrm{nT} \& 9.3$ <br> $\mathrm{nT})$ <br> Total Field (Bt) <br> Z Component of Field (Bz) <br> $\mathrm{nT})$ |

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

Sonmiani (SON): $\mathbf{2 5 . 2 ^ { \circ }}{ }^{\circ}$ N, 66.75º ${ }^{\circ}$, 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: 24 March 2022

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

02 Coronal Holes (CHs) are detected on the solar disk.


## DISCUSSION:

Solar activity is expected to remain at low levels. Moderate solar wind speed is expected due to the presence of CH . Geomagnetic activity is expected to be quiet. Local HF conditions are slightly enhanced.

