# Daily Space Weather Summary (SUPARCO)

**Thursday, May 02, 2024, 12:36 PST**

SUPARCO

| LOCAL CURRENT IONOSPHERIC CONDITIONS (SON) | |
|---|---|
| **Critical Frequency of F2 layer (foF2)** | 7.2 MHz |
| **Virtual Height of F2 layer (h`F2)** | 254 km |
| **Total Electron Content (TEC)** | 50 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) | 7.4 | 7.7 | 8.8 | 10.4 | 12.2 | 13.8 | 17.4 | 21.1 |
| FOT (MHz) | 6.3 | 6.5 | 7.5 | 8.8 | 10.4 | 11.7 | 14.8 | 18.0 |

**Local HF conditions are normal as compared to the predicted monthly median MUF.**

| LOCAL GEOMAGNETIC CONDITIONS | |
|---|---|
| **K-index** | 1 (Quiet) |
| **Total Field (F) (Son/Isb)** | 45695/50795 nT |

**The local geomagnetic field is quiet at the moment.**

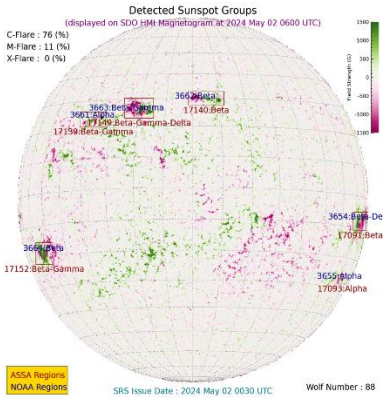
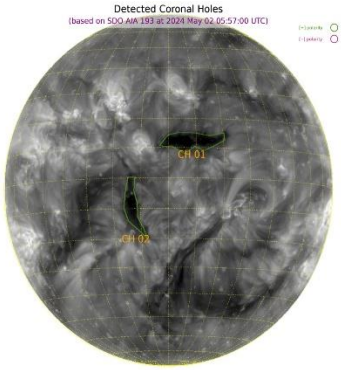
| LATEST SOLAR CONDITIONS | |
|---|---|
| **Sunspot Number (SN)** | 104 |
| **Solar radio flux (F10.7)** | 135 sfu |
| **Solar wind speed** | 358.9 km/s (varied in the past 24 hrs between 324 & 405 km/s) |
| **Solar x-ray flares** | C1.3 (max flare in the past 24 hrs (M1, 1444 UT) |
| **Interplanetary Magnetic Field (IMF)**<br>**Total Field (Bt)**<br>**Z Component of Field (Bz)** | +5.6 nT (varied in the past 12 hrs between +7.7 nT & +12.1 nT)<br>-1.5 nT (varied in the past 12 hrs between -7.2 nT & +2.1 nT) |

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

**Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E**

**Notes:** *Credits:* www.spaceweather.go.kr,www.sws.bom.gov.au,www.spaceweather.com,www.solen.info

**Daily Sun: 2 May 2024**

| | | |
|---|---|---|
| There are two active regions AR3654 and AR3663 present on the Sun capable of producing strong C and M-class solar flares having chances of 76% and 11% respectively.<br><br>02 Coronal Holes (CHs) are detected on the solar disk. |  |  |

**DISCUSSION:**

Solar activity is expected to be at low to moderate levels. Multiple M-class solar flares, have already occurred from the regions mentioned. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Low to moderate solar wind speed is expected due to the presence of coronal holes. Geomagnetic activity is expected to be quiet. HF conditions are normal.