Emirates Mars Mission [Hope] Status

- **Launched:** Jul 20, 2020 @1:58am UAE time
- **Mars Orbit Insertion:** Feb 9, 2021
- **Start of Science Phase:** May 23, 2021
- **Science Phase Duration:** 1 Martian Year (2 Earth Years)
- **Science Orbit Dimension:** 20,000km x 43,000km
- **First Data Release:** Oct 2021
- **Frequency of Data Release:** 3 months
Emirates Mars Mission
[Hope] Science

Science Objectives

A. Characterize the state of the Martian lower atmosphere on global scales and its geographic, diurnal and seasonal variability
B. Correlate rates of thermal and photochemical atmospheric escape with conditions in the collisional Martian atmosphere
C. Characterize the spatial structure and variability of key constituents in the Martian exosphere

Emirates Exploration Imager [EXI]
- Spatial Resolution: ~10 km
- Spectral Bands: 220, 260, 320, 437, 546, 635 nm

Emirates Mars Infrared Spectrometer [EMIRS]
- Spatial Resolution: ~100-300 km resolution
- Spectral Bands: 6.0-100+ µm

Emirates Mars Ultraviolet Spectrometer [EMUS]
- Spatial Resolution: < 300km resolution
- Spectral Bands: 100-170 nm
Emirates Mars M
[Hope] Uniqueness

Only EMM has the combination of

**global geographic**

&

**local time coverage**

on diurnal and sub-seasonal
timescales to allow detailed
assessment of atmospheric
circulation and transport
Emirates Mars Mission
[Hope] Selection of Results