



IMPOSSIBLE  
IS POSSIBLE

# Emirates Mars Mission

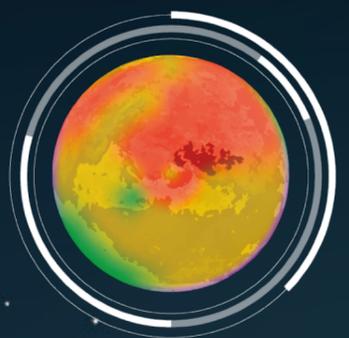
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# SCIENCE OVERVIEW



EMIRATES MARS INFRARED SPECTROMETER (EMIRS)



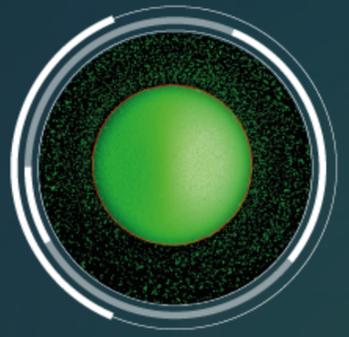
Infrared.

EMIRATES EXPLORATION IMAGER (EXI)

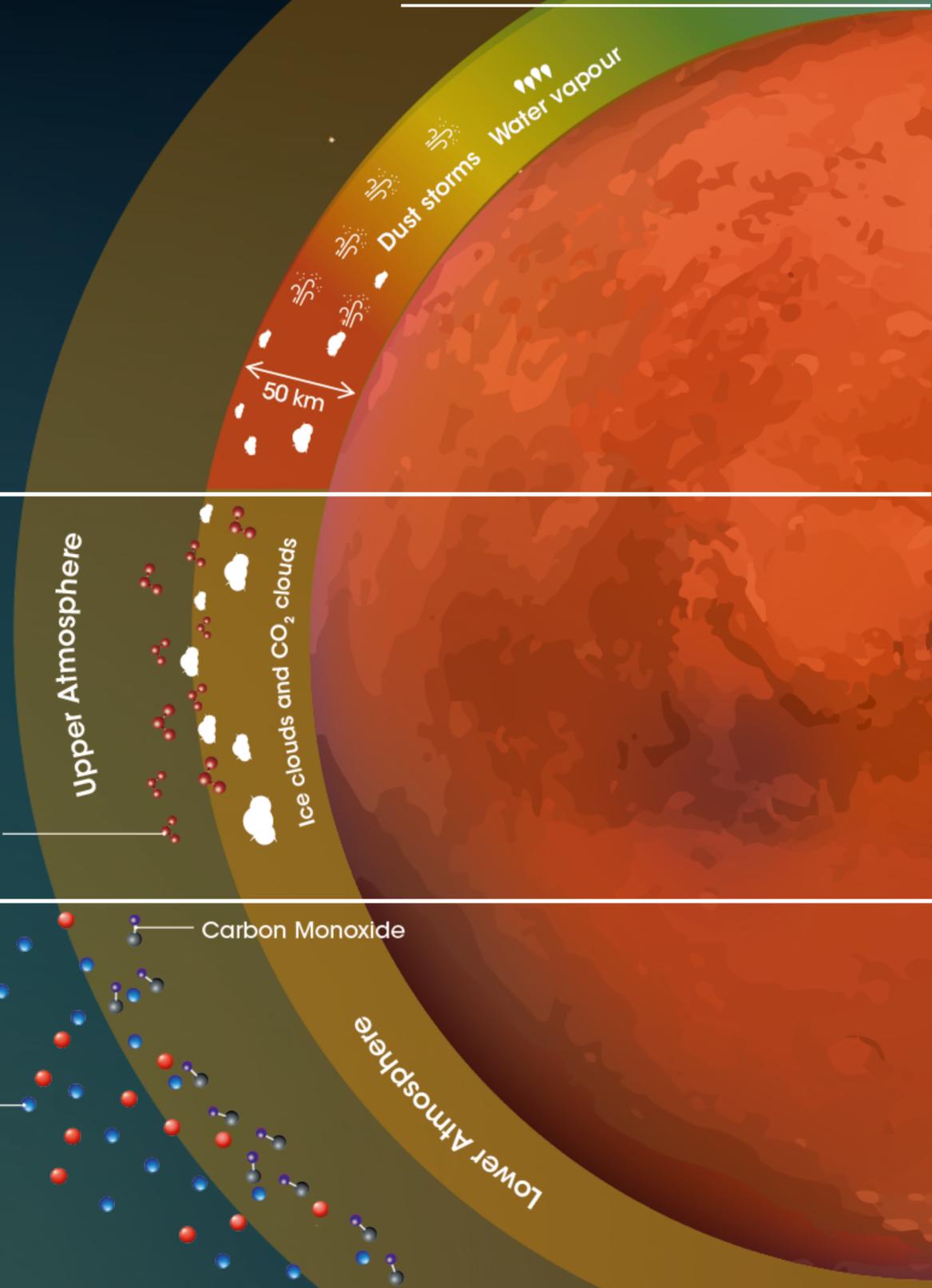


High resolution photos

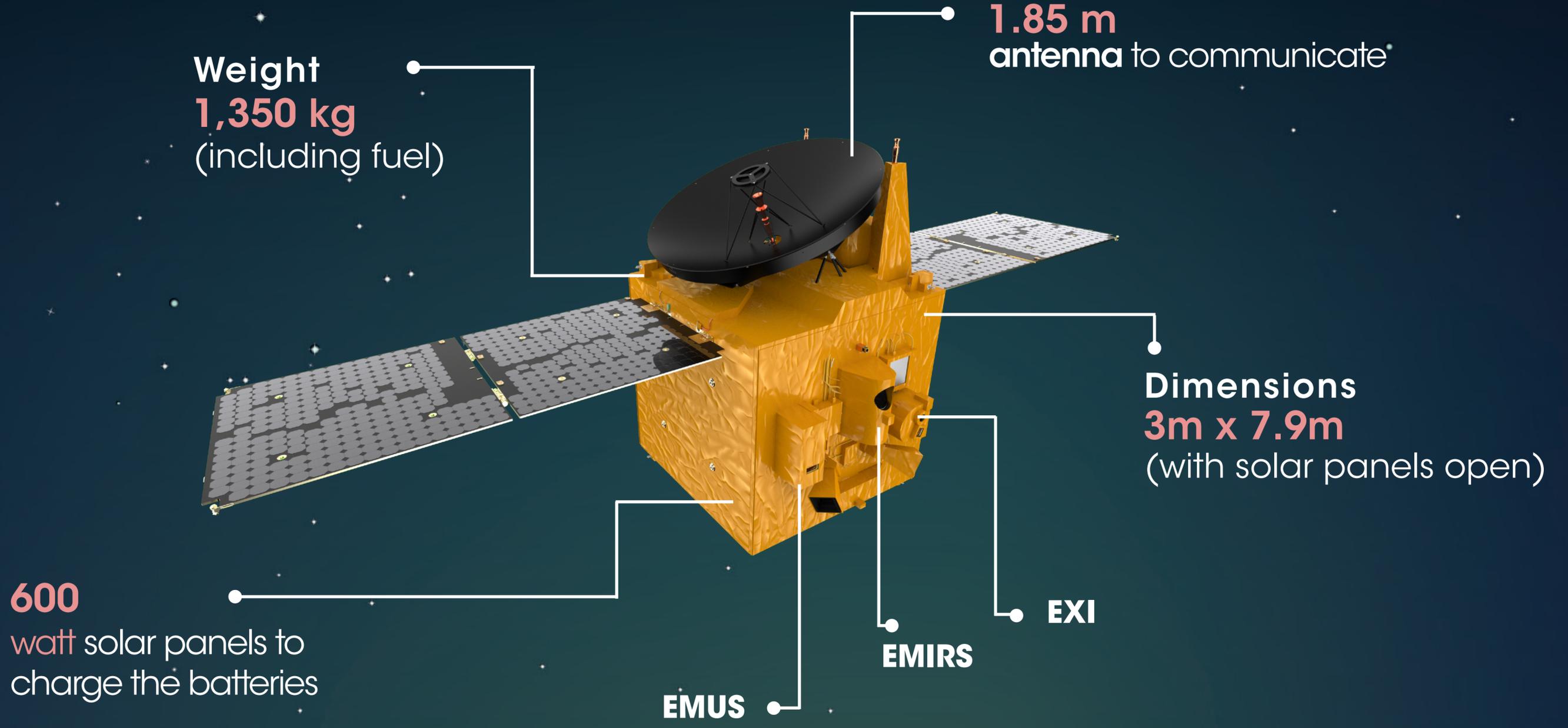
EMIRATES MARS ULTRAVIOLET SPECTROMETER (EMUS)



Ultra Violet



# HOPE PROBE SPECIFICATIONS



# EMIRATES MARS MISSION JOURNEY



## 1. LAUNCH

Begins after Probe is configured and enclosed in the launch vehicle and lasts until receiving the first signal

## 2. EARLY OPERATIONS (LEOP)

- Begins after launch and lasted (45 days)
- Constant contact with the Probe
- Characterizing and evaluation the performance of all probe components in space environment for the first time

## 3. CRUISE

- Begins after spacecraft commissioning is done in the EOP Phase
- Normal Operation with 2-3 contacts a week

## 4. MARS ORBIT INSERTION (MOI) (FEB 2021)

Begins after Cruise completion and lasts until Navigation Team confirm's the probe is in a stable orbit

## 5. TRANSITION TO SCIENCE

- Begins after MOI phase and last until the probe is in the science orbit.
- During the phase after the spacecraft commissioning is done, difference maneuvers will be conducted to

INITIAL ORBIT

SCIENCE ORBIT

## 6. SCIENCE

- Where the science data is collected
- lasts for 1 Martian year (687 Earth Days) with the possibility to extend it for one more year

