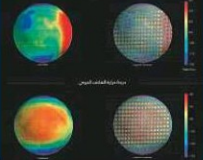




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## Hope Probe ready for science phase

1st Arab interplanetary mission has completed testing phase



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## Pooja Bhatt's regal ambition

Bollywood star talks about making her web series debut with *Bombay Begums*



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## Latifa voted Arab Lady of the Year

Award recognises her role in resurgence of cultural scene

# Hope Probe ready for science phase after 21 orbits of Mars

Two Transition to Science Manoeuvres will be conducted on March 22 and April 6

DUBAI

BY ANGEL TESORERO  
Senior Reporter

**H**ope Probe, the first Arab interplanetary mission, has completed its commissioning and testing phase and is ready to transition to science orbit, Emirates Mars Mission (EMM) project director Omran Sharaf said yesterday.

"We have completed 21 orbits of Mars since we arrived at the Red planet on February 9. We've been busy calibrating Hope Probe's three instruments, commissioning and testing the spacecraft's instrumentation subsystems and using every opportunity to gather data while we've been in our capture orbit," Sharaf said.

He also noted the completion of testing is ahead of schedule and the transition to science manoeuvres will take place earlier than planned.

EMM also released on Tuesday the first full suite of Martian images taken by the Hope Probe's three instruments.

Hope Probe has so far captured over 825 images of Mars, generating some 30 GB of novel data of its atmosphere.

EMM Science Lead Hessa Al Matroushi said: "We have already amassed a library of some 280,000 spectra of Mars using the Emirates Mars Infrared Spectrometer alone.

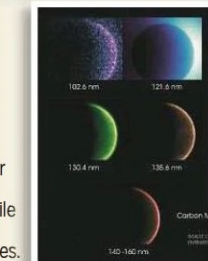
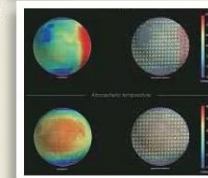
Before entering the science orbit, where Hope Probe will commence with its core mis-

## FIRST FULL SUITE OF MARTIAN IMAGES

The Emirates Mars Mission yesterday released the first full suite of Martian images taken by the Hope Probe's three science instruments spanning visible, ultra violet and infrared spectra.

The **Emirates eXploration Imager (EXI)** captured Olympus Mons, the tallest volcano in the solar system, on February 26 from an altitude of 13,007km. The **Emirates Mars Infrared Spectrometer (EMIRS)** captured mostly the Martian nightside (purple-green-blue hues), though dawn can be seen on the right-hand side of the surface temperature image (red hues).

False-colour images of Mars were obtained by the **Emirates Ultraviolet Spectrometer (EMUS)** from an altitude of 36,000km above the Martian surface. Each colour represents light collected at a different ultraviolet wavelength in the Martian upper atmosphere. **Violet and blue** show sunlight reflected from the cloud of hydrogen atoms surrounding the planet. **Green** shows the reflection of sunlight from oxygen atoms in the upper atmosphere. **Orange** shows electrons causing other oxygen atoms to glow while **red** shows a combination of emissions coming from carbon monoxide molecules.



Follow the progress of Hope Probe's Mars mission

SCAN ME

sion of data gathering, the ground control at Mohammad Bin Rashid Space Centre will conduct two Transition to Science Manoeuvres (TSMs) to move the probe from its capture to science orbit.

The first TSM will commence on March 22 and the second TSM is on April 6. A third manoeuvre will not be needed, according to Sharaf.

He said: "Our Mars Orbit Insertion was precisely targeted and this has allowed us to plan a reduction in TSMs and also to move to our science orbit ahead of schedule. We will commence science data gathering earlier in April than we had originally planned and I think it's fair to say there is huge excitement now in our science team."