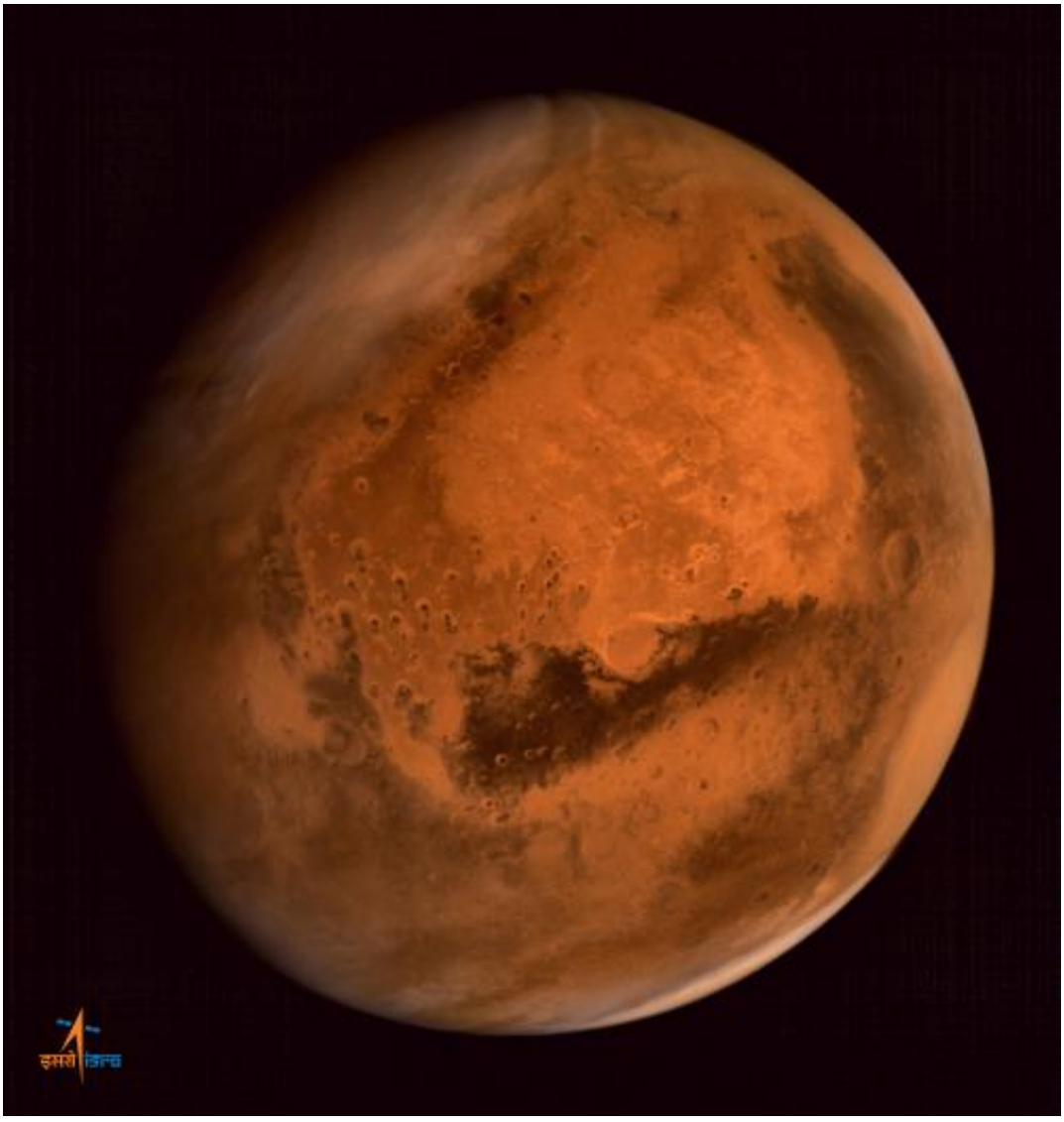
Image: MOM snaps spectacular portrait of the red planet

October 1 2014, by Ken Kremer



ISRO's Mars Orbiter Mission captures spectacular portrait of the Red Planet and swirling dust storms with the on-board Mars Color Camera from an altitude of 74500 km on Sept. 28, 2014. Credit: ISRO

MOM is truly something special.

For her latest eye popping feat, India's Mars Orbiter Mission (MOM) has snapped the first global portrait of her new Home – the Red Planet.

MOM is India's first interplanetary voyager and took the stupendous new image on Sept. 28, barely four days after her historic arrival on Sept. 23/24 following the successful Mars Orbital Insertion (MOI) braking maneuver.

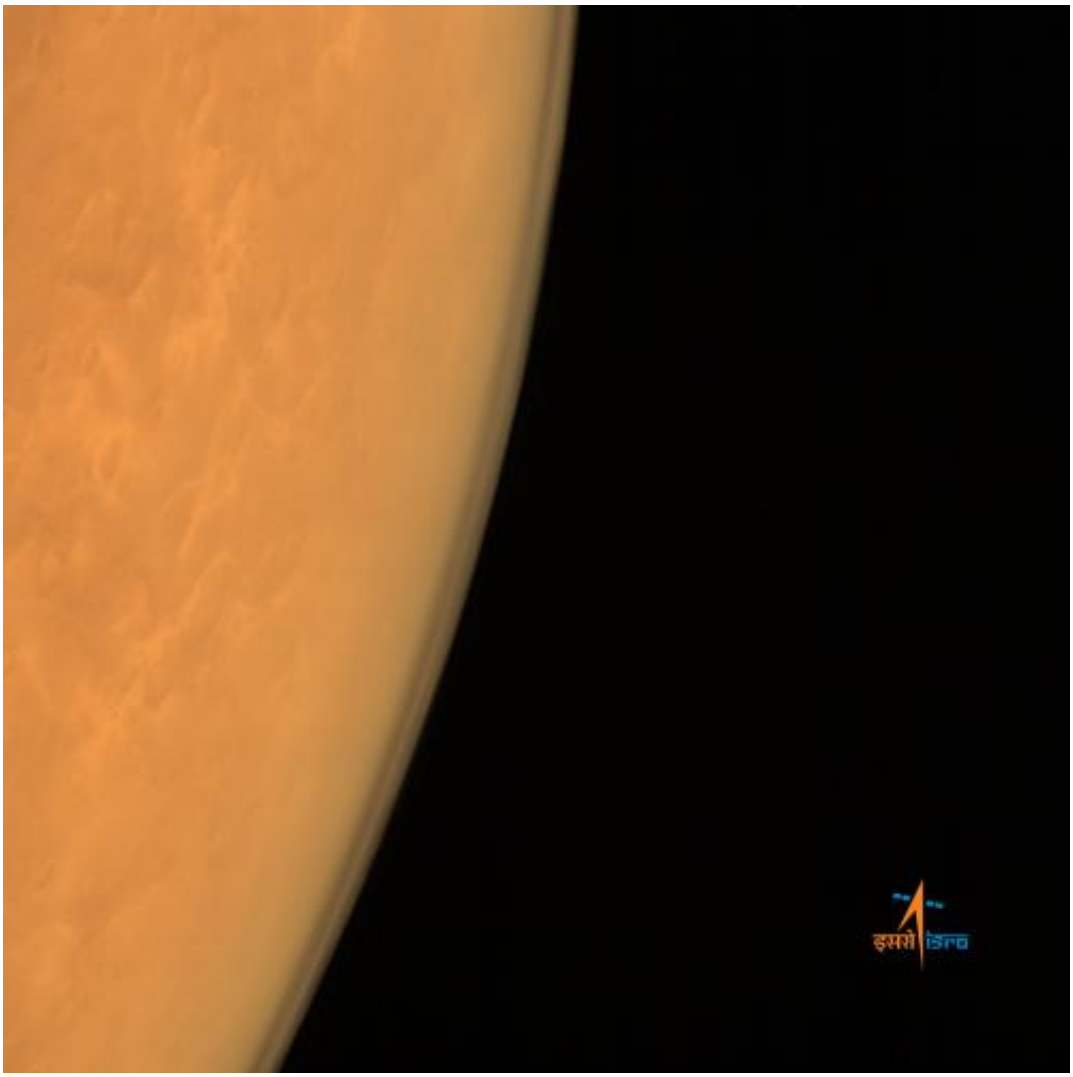
The MOM orbiter was designed and developed by the Indian Space Research Organization (ISRO), India's space agency, which released the image on Sept. 29.

Even more impressive is that MOM's Martian portrait shows a dramatic view of a swirling dust storm over a large patch of the planet's Northern Hemisphere. Luckily, NASA's Opportunity and Curiosity surface rovers are nowhere nearby.

"Something's brewing here!", ISRO tweeted.

The southern polar ice cap is also clearly visible.

It was taken by the probes on-board Mars Color Camera from a very high altitude of 74500 kilometers.



ISRO's Mars Orbiter Mission captures the limb of Mars with the Mars Color Camera from an altitude of 8449 km soon after achieving orbit on Sept. 23/24, 2014. . Credit: ISRO

When MOM met Mars, the thrusters placed the probe into a highly elliptical orbit whose nearest point to Mars (periapsis) is at 421.7 km and farthest point (apoapsis) at 76,993.6 km. The inclination of the orbit with respect to the equatorial plane of Mars is 150 degrees, as intended, ISRO reported.

So the Red Planet portrait was captured nearly at apoapsis.

This is the third MOM image released by ISRO so far, and my favorite.

MOM's goal is to study Mars atmosphere, surface environments, morphology, and mineralogy with a 15 kg (33 lb) suite of five indigenously built science instruments. It will also sniff for methane, a potential marker for biological activity.

The $73 million mission is expected to last at least six months.

MOM's success follows closely on the heels of NASA's MAVEN orbiter which also successfully achieved orbit barely two days earlier on Sept. 21 and could last 10 years or more.

Source: Universe Today