

WALL-E AND EVA SET NEW RECORD

The 1st-ever interplanetary CubeSats – nicknamed Wall-E and Eva – are now on their way to Mars. They set a new CubeSat distance record on May 8. Then Wall-E turned back and grabbed an image of the Earth and Moon. →

The Voyager 1 spacecraft took a classic portrait of Earth – the famous Pale Blue Dot image – from several billion miles away in 1990. On May 9, 2018, two tiny, boxy spacecraft known as CubeSats – nicknamed Wall-E and Eva by spaceflight engineers at NASA's Jet Propulsion Laboratory in Pasadena, California – took their own version of a pale blue dot image, capturing Earth and its moon in one shot.

On May 8, Wall-E and Eva set a new distance record (for CubeSats) when they reached 1 million km from Earth. Then Wall-E – aka Mars Cube One B or MarCO-B – used a fisheye camera to snap its first photo on May 9. That photo – which you see above – is part of the process used by the engineering team to confirm the spacecraft's high-gain antenna has unfolded properly. **Andy Klesh**, the MarCO project's chief engineer at JPL, said: *Consider it our homage to Voyager.*

The MarCOs will be the first CubeSats to fly to another planet. They're flying along behind NASA's InSight lander on its cruise to Mars. If they make the journey, they'll test a relay of data about InSight's entry, descent and landing back to Earth.

Originally developed to teach university students about satellites, these modular mini-satellites are now a major commercial technology, providing data on everything from shipping routes to environmental changes.

The high-gain antennas are key to that effort; the MarCO team have early confirmation that the antennas have successfully deployed, but will continue to test them in the weeks ahead.

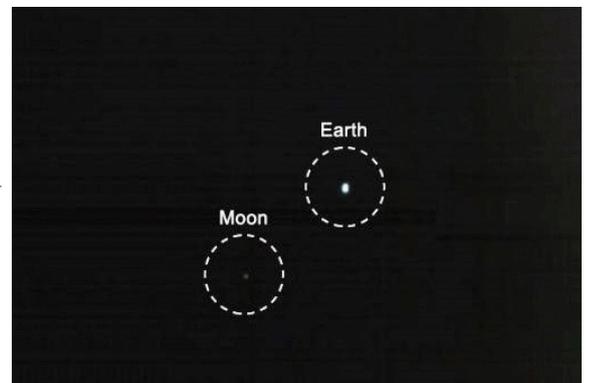
InSight won't rely on the MarCO mission for data relay. That job will fall to NASA's Mars Reconnaissance Orbiter. But the MarCOs could be a pathfinder so that future missions can "bring their own relay" to Mars. They could also demonstrate a number of experimental technologies, including their antennas, radios and propulsion systems, which will allow CubeSats to collect science in the future.

This is the Mars Cube One or MarCO mission, launched on May 5 along with NASA's InSight lander. InSight will touch down on Mars this November and study the planet's deep interior for the first time.

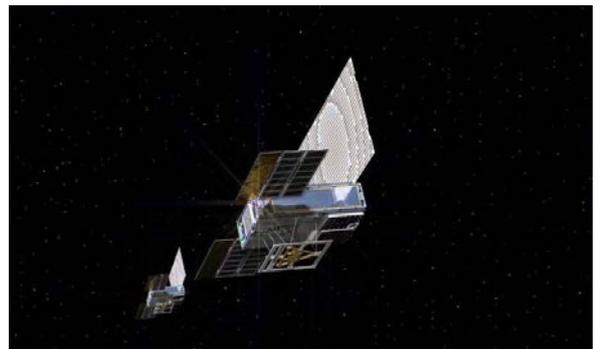
The MarCO CubeSats will follow along behind InSight during its cruise to Mars. Should they make it all the way to Mars, they will radio back data about InSight while it enters the atmosphere and descends to the planet's surface.

Later this month, NASA said, the MarCOs will attempt the first trajectory correction manoeuvre ever performed by CubeSats. NASA explained: This manoeuvre lets them steer towards Mars, blazing a trail for CubeSats to come.

Bottom line: The 1st-ever CubeSats – nicknamed Wall-E and Eva – set a new CubeSat distance record on May 8. Then Wall-E turned back and grabbed the first-ever CubeSat pale blue dot image: an image of the Earth and Moon.



This is the 1st distant image of the Earth and Moon ever captured by a CubeSat, MarCO-B. NASA's Jet Propulsion Laboratory acquired this image on May 9,



Artist's concept of the twin MarCO spacecraft – called Wall-E and Eva by spaceflight engineers – as they fly through deep space.



Awesome shot of InSight Mars launch – with the MarCos on board – on May 5, 2018. Despite fog at the launch site, photographer Alex Ustick in California was one of many who caught InSight climbing to space. – Notice Jupiter!

AK, with EarthSky and Wikipedia Notes