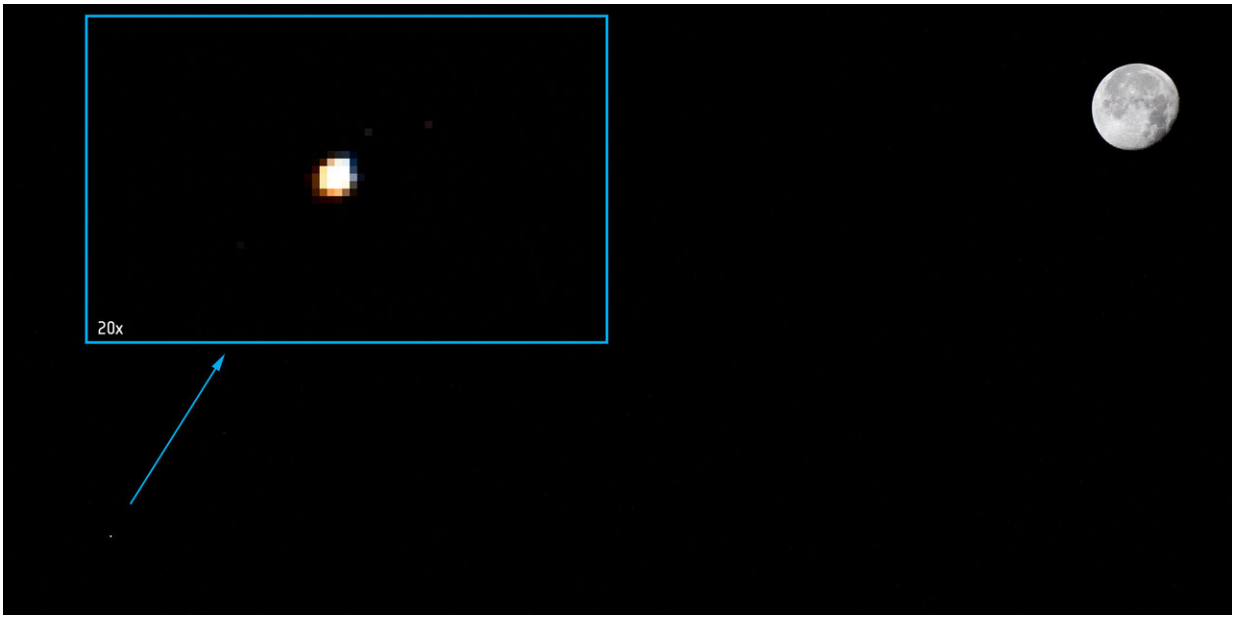
Image: Moon, Mars, station

July 19 2018



Credit: European Space Agency

This image was taken by ESA astronaut Alexander Gerst from the International Space Station on 30 June 2018 when the Moon and Mars were at its closest so far during his six-month Horizons mission.

For illustration purposes, Mars has been highlighted and enlarged twenty times: the 'Red Planet' has a radius of 3389 km but at the time was roughly 67 million km from Earth while the Moon has a radius of 1737 km and was at a distance of around 411 000 km.

The distance from Mars to Earth varies as both planets orbit the Sun and it is at its closest in these weeks, appearing brighter than Jupiter in the night sky. The night of 27 July offers another periodic spectacle during the lunar eclipse when Earth casts its shadow over the Moon causing our satellite to appear red.

With careful planning and some luck it should be possible to see the Red Planet and the reddish moon with the International Space Station always flying past from West to East. In mainland Europe the Moon will rise eclipsed and the total eclipse will continue past 23:00 CEST.

The International Space Station, Moon and Mars are the destinations for ESA's human and robotic exploration strategy, using low-Earth orbit for research and demonstrating technology, developing the Orion service module and elements for a gateway around the Moon and sending robotic probes to Mars, such as the ExoMars rover that will drill down 2 metres into the surface in search for life.

We would love to see any pictures taken showing the Moon, Mars and the International Space Station in one shot – even better if you manage to get all three during the lunar eclipse. Send your images to ESA's social media channels, as a Facebook message to ESA, with hashtag #youresa on Instagram, or as a reply to the pinned tweet on @esaspaceflight. Provide as much background to how you took the picture as you can. The best three entries will be eligible to win exclusive prizes.

Alexander took this picture with a 210 mm lens when not working on the dozens of European experiments run on the International Space Station. Flying at 28 800 km/h it only takes 90 minutes to circle Earth, meaning the astronauts on board fly through the night every 45 minutes: coupled with always-clear skies, there are more opportunities for an astronaut to take the perfect picture.

Provided by European Space Agency