

The Essex stargazer aiming to put mankind back on the Moon ... and shoot down a few conspiracy theories

Sian Cleaver will fulfil a childhood ambition when the Artemis mission puts humans on the lunar surface for the first time in 50 years

By [Sarah Knapton](#), SCIENCE EDITOR 28 January 2022 • 3:35pm – The Telegraph



Sian Cleaver joined the European Service Module's team in Germany in 2019, and is hoping that the project will open up space travel for more people

As a child growing up in Essex in the Nineties, Sian Cleaver dreamed of travelling into space. Now she is playing a pivotal role in putting humans back [on the Moon](#).

In March, Nasa and the [European Space Agency](#) will launch the [first test flight](#) of the much-awaited Artemis mission, which is scheduled to take astronauts back to the lunar surface for the [first time since 1972](#).

The European Service Module (ESM), which will provide the power, propulsion and life support systems for the crew, has been designed by Airbus, and Ms Cleaver is the industrial manager for the project from Bremen, Germany.

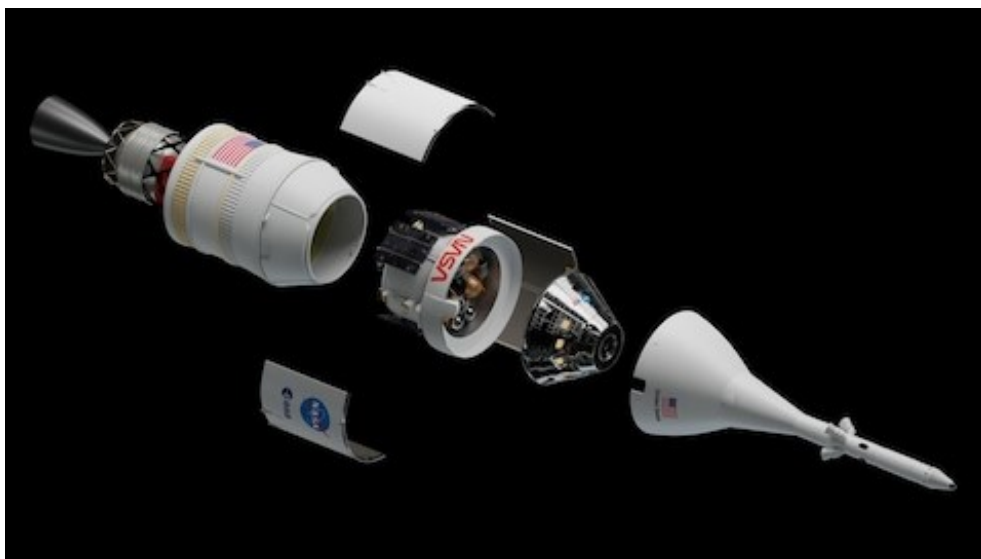
The landing is scheduled for 2025, and she is hoping the project will open up space for more people, while finally putting to bed decades of [Moon landing conspiracy theories](#).

“A lot of my colleagues and myself weren't alive and we don't remember the lunar landings, I am continually surprised by the number of people who I meet who [deny it took place](#),” she said.

“Everybody loves a conspiracy theory these days. But I can’t believe how often when I tell people what I do, they’re like ‘you really believe [we went to the Moon?](#)’ How would we have managed to do what we’re doing without the lessons we learned back then?”

“We’ll not just be going back for a few days this time. We’ll be going for weeks at a time and developing the infrastructure and technology that allows human life to be sustained on another body.”

A blast from the past



The first Artemis mission will see the Orion spacecraft, pictured, travel to the Moon’s orbit without a crew

[Under the Apollo programme](#), Nasa first landed on the Moon on July 20 1969, and made five other successful manned missions over the following three years, before [cancelling the lunar programme](#).

Like the early Apollo flights, the first Artemis mission in March will be without a crew, with the Orion spacecraft travelling to the Moon’s orbit before the crew module returns to Earth to practice a parachute landing.

In a nod to previous missions, the ESM is powered by an engine repurposed from the [Atlantis Space Shuttle](#), which made its final flight in 2011.

The second stage, Artemis II, is scheduled for launch in 2024 and will see astronauts return to the Moon’s orbit, similar to Apollo 8. The full touchdown is due in 2025, either in a landing module from the Orion orbiter, or by docking at the Lunar Gateway space station and descending from there.

The Gateway, which is due to launch in 2024, will be a multi-module space station, sitting permanently in orbit to provide support for the astronauts, as well as acting as a staging post for deep space missions. Once on the surface, astronauts will construct a [permanent base camp](#).

Opening up space travel for the next generation



An artist's impression of how the Orion spacecraft will land on the Moon

Ms Cleaver grew up in Chelmsford, Essex, and wanted to be an astronaut from the age of five. She attended Chelmsford County High School for Girls, before taking a master's degree in physics and astronomy at Durham University.

The 32-year-old joined Airbus in 2012, first working in Portsmouth and Stevenage, before moving permanently to Bremen to join the Orion ESM team full time in March 2019.

"I've always wanted to work in human spaceflight, so I moved over to Germany because in my mind it's the coolest mission we are doing in Europe," she said.

"I'm so excited for the launch and to be making history again. The ESM is connected to the crew module and it's providing everything that the crew needs and the propulsion that will push the astronauts to the Moon.

"Going to the Moon for one or two days is one thing. But can we stay there for a number of weeks? Can we start to use the Moon's resources to sustain human life? Can we cope with the delays in communication?"

"The plan is to have a semi-permanent presence on the lunar surface and the Moon is going to be used as a stepping stone for further exploration, so we're thinking of Mars. So it's very much an intermediary step towards exploring Mars."

First woman and person of colour on the Moon promised

She is also hopeful that opening up space will allow normal people to experience life away from our planet. The Artemis mission has also promised to [land the first woman](#) and the [first person of colour](#) on the Moon.

“I hope we get to Mars in my lifetime and I hope that space becomes a little bit more accessible, not just for millionaires,” she added.

“Space is really special and should be enjoyed by everybody, and I think the perspectives you get in space are beneficial back on Earth.”

Nasa has confirmed that Artemis I is due for launch not before March 22.