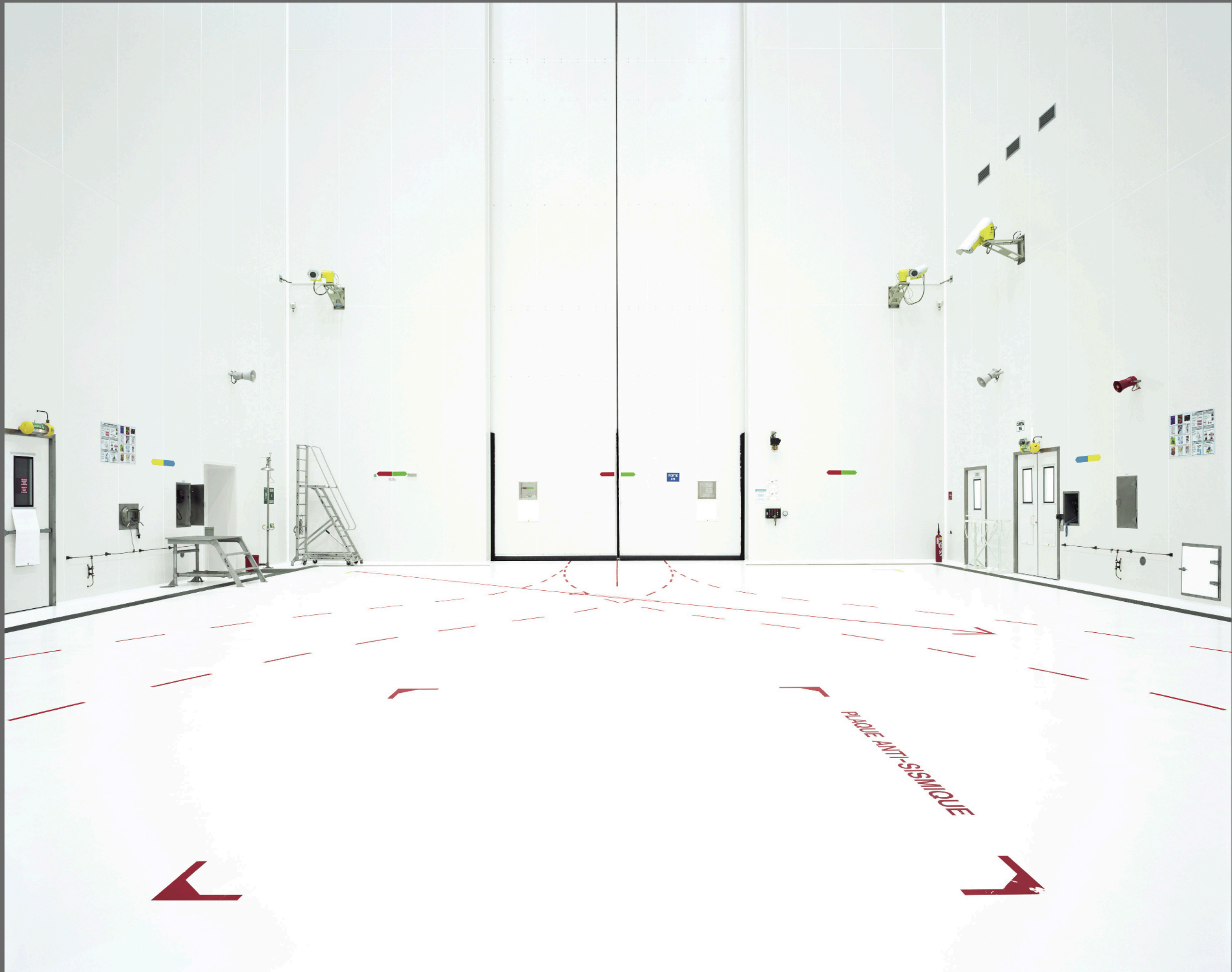


# GROUND CONTROL

These eerily unpeopled photographs of space agency facilities by Portuguese photographer *Edgar Martins* give unparalleled behind-the-scenes insights. Introduced by *Alice Fishburn*



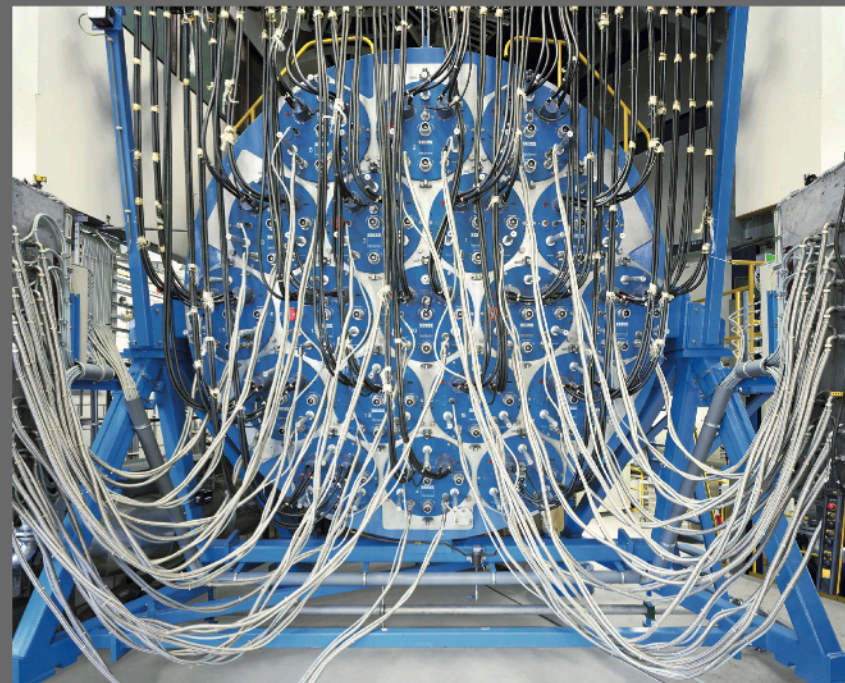
Childhood dreams of rockets and astronauts are nothing unusual, but for Edgar Martins his fascination with space did not end there. It led to his enormous vintage sci-fi movie collection; his accumulation of cold war-era space memorabilia; his huge library stuffed with books on physics. So his latest move to produce one of the most comprehensive surveys of a space agency's inner workings ever undertaken is not entirely surprising.

Martins persuaded the European Space Agency (ESA) to allow him exclusive access to its own and partners' sites over almost two years. The result? A new project entitled *The Rehearsal of Space & the Poetic Impossibility to Manage the Infinite*. "A lot of my work has had a sense of wanting to understand things that are not fully understood," he explains. "I think understanding space probably gives us a little bit more knowledge about ourselves."

Certainly the Portuguese photographer has never shied away from big subjects; previous projects have focused on power stations and the "urban frontier". The ESA series is no different. ▶

Left: Fuelling hall (Europe's Spaceport, Kourou, French Guiana), where spacecraft are filled with propellant

Below: Sun basement (European Space Research and Technology Centre, Noordwijk, Holland), which can simulate exposure to solar radiation in space



Opposite: The Maxwell test chamber (ESTEC, Noordwijk) is large enough to accommodate an entire space vehicle, for testing its electrical and magnetic characteristics

This page: Objects at the Materials and Electrical Components Laboratories (ESTEC, Noordwijk). Right, solar array deployment mechanism rotor, which opens solar panels when in orbit. Below, multi-layer insulation, thermal protection for satellites



Far left, launch vehicle heat exchanger. Left, stainless steel reflector

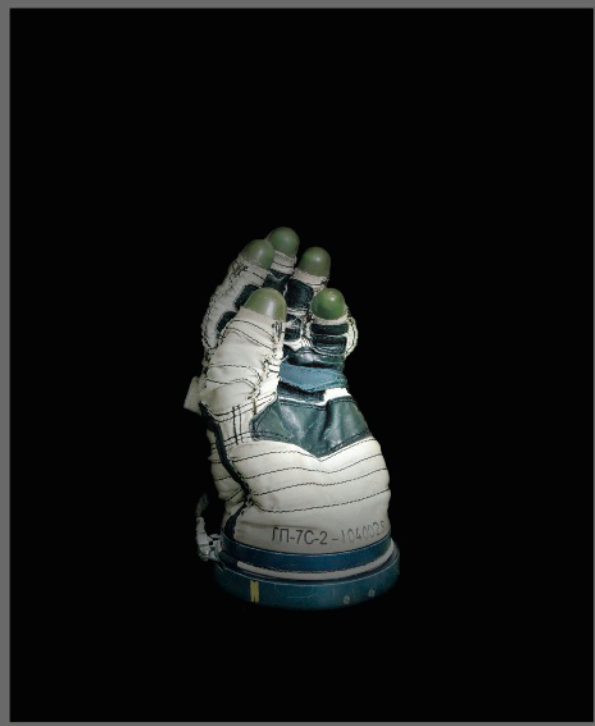
'I really wanted to try to understand whether space still captivates people as it did in the 1960s and 1950s'

Right: The Large European Acoustic Facility (ESTEC, Noordwijk) can simulate the fierce vibration by soundwaves that components will be subjected to during take-off



Below: An 'Ergolier' helmet (Kourou), part of the protective wear for people handling spacecraft fuel (called 'ergol' in French)

Bottom: Space glove at the Yuri Gagarin Cosmonaut Training Centre (Star City, near Moscow)



◀ Shot in more than 15 space facilities in countries from Russia to Spain, the photographs capture everything from launch sites to moon rock; artefacts of space history to the elements of its future. This being space exploration, the scale of some of the machinery involved is enormous. "It's easy to feel humble next to all that technology," says Martins of his encounter with the huge launchers at the Spaceport in French Guiana. Entering the Large Space Simulator at ESTEC, Holland, was "like I was walking into a porthole to another dimension". A very dark dimension indeed: the only lighting came from his small, handheld flash.

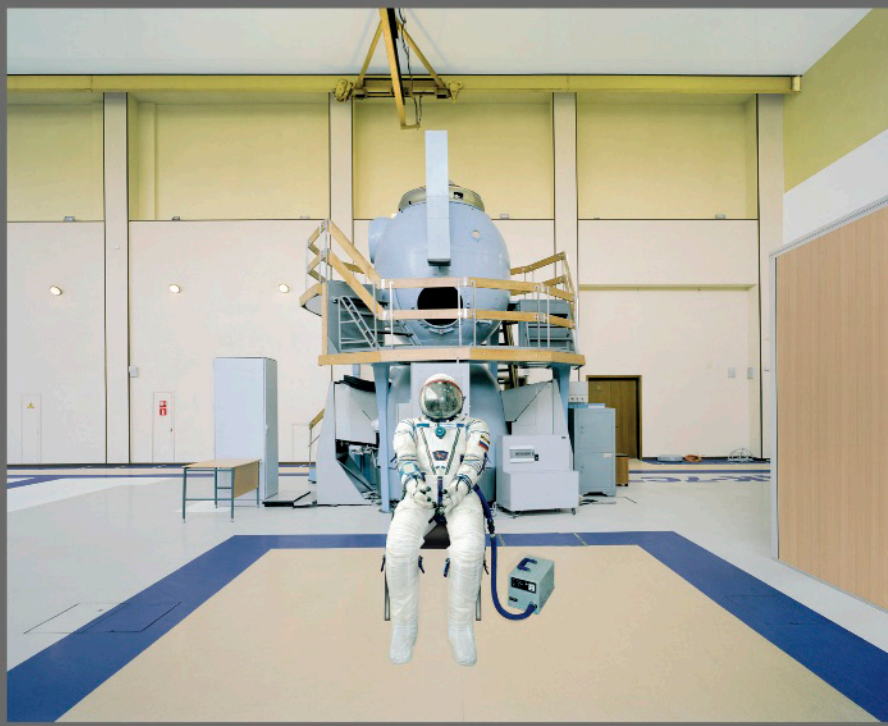
But other photographs also highlight the nuts and bolts of space: the components without which no shuttle could get off the ground. The scientists may not appear but you can sense their presence just out of shot, anxious to return to their refining of a bit of kit. Many of these mysterious pieces of technology may well end up trickling down to our more earthbound world.

Indeed the project demonstrates the changes in space exploration over the decades. "I really wanted to try to understand whether space still captivates people as it did in the 1960s and 1950s," says Martins. Back then, the international politics of the space race associated exploration with patriotism and national security. Today the focus of many agencies is increasingly commercial, developing areas such as satellite technology that allow them to fund their other, more exploratory ventures.

Still, the appeal of the unknown persists. These photographs play on our fascination with what really happens behind the scenes at a space station. For Martins, the question of space suits had long preyed on his mind. "I'd always wondered what happened to them when they're not being used. How do they store them? Are they vacuum-packed? Do they even exist?" When he arrived at the Yuri Gagarin Cosmonaut Training Centre at Star City near Moscow, he decided to solve the mystery, pushing for access to the hidden back rooms.

There they were, tucked neatly on a shelf, waiting for their components to return and suit up. "I felt like a child on Christmas day," Martins says. "In fact, I felt like that in most of the places I photographed. I just couldn't contain my excitement." 17

"The Rehearsal of Space & the Poetic Impossibility to Manage the Infinite" will be published by La Fabrique/The Moth House in 2014 (admin@themothhouse.com) followed by a European touring exhibition. To comment on this story, email [magazinetletters@ft.com](mailto:magazinetletters@ft.com)



Left: Pressurised suit in front of a Soyuz training module (Star City)

Above: Astronaut dressing room (Star City)

'I'd wondered what happened to space suits when they're not being used. How do they store them? Do they even exist?'