

# Saturday

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**'The power is within us, the people!'**

Westminster braces itself as Russell Brand pays a visit **Page 50**



## Next stop Mars!

It's been quite a week for Britain's first official astronaut Major Tim Peake. First, he meets the prime minister, then there's a press scrum, and finally that excruciating Newsnight interview with a sneering Jeremy Paxman. How did he cope? Water off a duck's back



**The Saturday interview**  
By Aida Edemariam

There is something about human space flight that simultaneously feels both entirely futuristic and of the past; a future written into stories and dreams of the mid-20th century, rather than of the 21st. Britain's first official astronaut, after all, was born two years after the moon landing in 1969. "Eugene Cernan was the last person on the moon," adds Major Tim Peake, who was chosen this week for a mission to the International Space Station in November 2015. "And that" - 1972 - "was the year I was born."

Behind him, in a picture on the wall, sails the space station, the Earth a blurred blue curve below it. The European Astronaut Centre, where Peake is being trained, and where we meet, is in the far corner of a huge lot on the outskirts of Cologne, Germany, which is also home to the German Space Agency, where that future-past tension persists. The long, low prefab buildings, set among birch trees and wild flowers, feel like a

throwback to the 60s. It has, however, been a valued part of the German economy - in distinct contrast to Britain, which cancelled its space programme in 1971 because it was too expensive, and, under the aegis of Margaret Thatcher, deemed a waste of money. In 2010, however, in the dying days of the Brown government, the UK finally acquired a space agency; and the UK space industry, as science minister David Willetts has been only too keen to point out, is growing at a rate of 8% a year. Last November, the coalition joined the ESA with a one-off contribution of £16m. The Treasury estimates that for every one if those pounds it will get four back in commercial activity.

Today, the astronaut centre itself is eerily under-populated - but that is only because almost everyone is in Houston or Kazakhstan, preparing to send the first of Peake's class of six into space on Tuesday. They are, in turn, the first class of astronauts to be trained by the ESA.

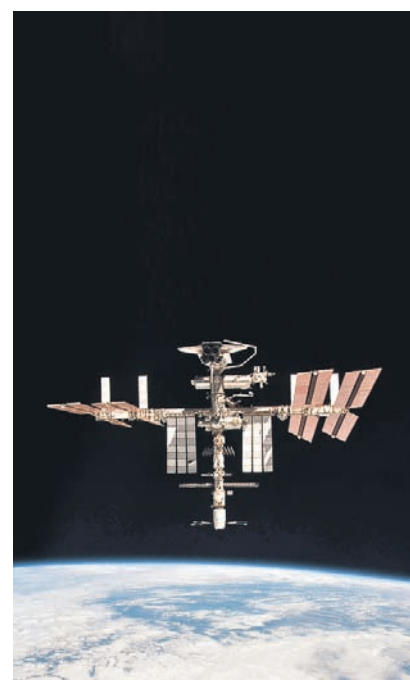
There was huge excitement when Peake was first chosen. This week, when his first actual mission was announced, he found himself meeting the prime minister, facing a press scrum - and, much worse, dealing with Jeremy Paxman on Newsnight (pictured below), who was sticking with the Thatcher memo about it all being ridiculous and a waste of money. "What's the point?" he wanted to know, in a self-parodying sneer. "You're just drifting around, aren't you? It's not what many people would recognise as a taxing job."

Peake (proving, on the way, a few of the qualities that helped him beat 8,400 people to his job) was unflappable, telling Paxman about experiments

in microgravity and Commander Chris Hadfield's recent record for the most experiments done in space (when he wasn't singing Space Oddity). "I mean it's fine, isn't it," he says now. "If anything, sometimes when people ask you more intelligent questions, it's harder to answer." Ouch. "When people aren't really asking you a question, it just gives you the opportunity to talk and say what you want to say." But he accepts Paxman's contempt isn't unusual. "Everybody is entitled to their opinion. Yes it's expensive, but it's not that expensive. In the Apollo era, it was 5% of the US GDP - it's nothing like that these days." The German space programme, says Peake, the biggest in Europe, costs Germans €1 a year each. "And money spent on space is not spent in space. Money spent on space is spent here on Earth, it's industry and it's jobs." It's also research into MRSA, salmonella and osteoporosis; space exploration has given us the CAT scanner, the computer microchip, the smoke detector, domestic water filters, cordless power tools, shoe insoles ...and it could even guarantee our very survival.

"There is no future for us here on Earth," says Peake. "If we survive as a human species, it's inevitable - we are going to have to leave the planet. Now that's an awful long time away, we hope, but at some point we have to make the leap, and we have to find other resources in the universe - and that starts now, I think. To me it's an insurance policy for the future. It's also all about exploration - it's in our natural psyche to want to explore, to push the boundaries and take the next steps."

The latter obviously come naturally to Peake, the second child of a midwife and a local journalist who then worked for Zurich Financial. He was born and grew up just outside Chichester, where his parents still live; he went to the local comprehensive. He always had huge



In orbit ... the International Space Station, above, where astronaut Major Tim Peake, main, will go in 2015

amounts of energy, taking himself off on cross-country runs to burn it off. Eventually he joined the cadets: "It was Duke of Edinburgh award schemes, it was Outward Bound adventure training, it was flying in helicopters, it was being winched up and doing crazy stuff - for any teenage kid it was just a fantastic outlet." He joined the army because he wanted to fly, went to Sandhurst, and eventually became a helicopter test pilot. He served in Bosnia, in Northern Ireland, Afghanistan - what was his experience there? "I can't talk about Afghanistan. At all." Why? "Because of what I went out to do". He suffered rotor failure flying at night in formation on the New Mexico border, carrying extra fuel tanks; he stayed calm, remembered his training, and survived.

Part of the year-long weeding-out process that began with 8,400 applicants and ended with six was exhaustive psychological testing - literally thousands of questions, he says, often the same questions repeated in many different ways. "Honestly, the process is so long, and it's so varied and so diverse that you just have to be yourself - you are who you are, and they'll find out who you are by hook or by crook." There was complex situational role-play, in which winning for yourself was deliberately set against winning for the team, forcing you to balance the two for the best result. In a cave in Sardinia, during training after they were chosen, they conducted experiments on air and water and microbiological life forms, but they were also deprived of their watches and of sleep and, for three days on a different trip, of food: the test being not only that they could continue to function under such conditions and do the jobs they had to do, but that they could do so calmly, as a team. Modern

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