

'Astronaut wanted': the story of Helen Sharman's unique spacesuit

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Helen Sharman was the first Briton in space. But before she could even start her training, she had to have a spacesuit made just for her.

Helen Sharman was 27 in 1989 when she responded to a radio advert inviting applications for a mission to the Mir space station. It declared: "Astronaut wanted. No experience necessary". At the time, she was working as a chemist at confectionery company Mars.

Helen was chosen from over 13,000 entries to represent the Soviet-British Juno Mission to space.



Helen Sharman in 1991. Courtesy of Helen Sharman.

Helen was sent to Russia's Star City to train for 18 months, where she found that most of the spacesuits available to practice in were too big.

She said:

"Perhaps the greatest discomfort I suffered was doing tests in an off-the-shelf spacesuit, which was suited to fit a man."

A suit for the stars

Helen's body was measured in 54 places to ensure her custom Sokol (Falcon) suit fitted perfectly. It was created by the same specialists who made the spacesuit for Russian cosmonauts Yuri Gagarin and even Laika, the first dog in space.

"It was made-to-measure. I never had a made-to-measure suit before and never since."

However the first time she tried it on, the suit was a bit tight and had to be adjusted. The second time, she had to wear it for three hours of solitary confinement – in a vacuum.



The spacesuit. Credit: Science Museum Group.

Despite all of the hard work, she and her Soviet crewmates were told to lose some weight just before launch – to allow for enough weight allowance to take a spare computer on board.

“It’s an intimate garment,” Helen says.

“You wear it for the emotionally charged times, the exciting times: launch, docking and landing.

“Not that I’m a big clothes horse normally, and there aren’t very many times I really remember my clothes, but I do remember that suit.”

Saved for the nation

After it returned to earth, Helen’s suit went on to have a very different orbit to other spacesuits, which are usually reused for trainee cosmonauts.

A sale to London’s Science Museum fell through and eventually Sotheby’s auctioned it in 1993. It was bought by a private collector and disappeared for the next nearly 10 years.

And then, it reappeared. In 2006, the Science Museum was able to buy the unique spacesuit, thanks to a £35,000 grant from The National Lottery Heritage Fund.



Helen Sharman landing back on earth. Courtesy: Helen Sharman.

Today the spacesuit lives in the Science Museum's Exploring Space gallery. And Helen works at Imperial College London, just across the road.

"I can see it's older. It's darker," she says. "Something is changing the chemistry - the rubber inside must be stiffening up. It is a bit strange that you can only touch something with gloves on that you used to wear.

"And it wasn't just like putting a pair of trousers on: I was totally inside it, sweating in it."

In 2015, to celebrate the 25th year since her historic flight, Helen was reunited with her spacesuit. See her talking about it in this [Science Museum video](#).

- Reporting by: [Hayley Dunning](#).