

Lessons from space

Journalist **Laura Fountain** finds out how an elementary school teacher from Idaho flew into space to inspire a generation of children



IN 1986, BARBARA Morgan, along with the rest of the world, watched as the Challenger spacecraft prepared to launch its seven occupants into space. On board was one special crew member – Christa McAuliffe, who had

been selected from thousands of teachers across the US to become the first teacher in space. McAuliffe's backup for the mission, Morgan was also her friend and colleague.

Challenger exploded just 73 seconds into its flight, killing everyone on board. But 21 years later, in 2007, Morgan (above) would continue her friend's legacy by becoming the first teacher in space and deliver the first lesson to US pupils from miles above Earth.

It is a story that has all the makings of a Hollywood blockbuster – and, given time, it

will probably become one – but for Morgan, the tragedies and excitement of her 21-year wait to go into space were very real.

It began in 1985, when President Reagan called for teachers to apply to NASA's Teacher in Space programme.

Reaching for the stars

As a child growing up during the space race, space exploration had always interested Morgan. "I was always interested in looking up at the stars when we'd go camping and as a Girl Scout," she says. "My folks, when we were very young, got us a little telescope for Christmas and we would look up at the stars. I was always interested in what's out there."

"We were glued to the TV when we first landed on the moon and the flights leading up to that. It was very much a part of my growing up. I didn't even consider that it would be something that I could do. Part of that was because of the opportunities then for women. I'm so glad that's not the case any more."

Morgan earned a degree in human biology at Stanford University in 1973 before obtaining her teaching credentials at the College of Notre Dame in Belmont, California.

"All through growing up, because I've loved learning and because I think I really respected and loved my teachers, I had always thought I would probably be a teacher," she says.

In 1985, Morgan was teaching at McCall-Donnelly Elementary School in Idaho. She saw the Teacher in Space programme as her chance to inspire students around the world and to fulfil a personal dream.

"I was at home after school – it was five o'clock. The president came on the news and announced that they were sending a teacher into space. I shot straight up and said 'Wow!'"

"As teachers, we're always looking for opportunities to bring the world to our classroom, to gain more experiences, to gain more knowledge about the world, so that we can make our classroom a better place for our kids," she says. "It was a tremendous

"As teachers, we're always looking for opportunities to bring the world to our classroom"



Left: Barbara Morgan. **Top:** The Endeavour launches. **Above:** The crew of the Endeavour prepares to board the shuttle

opportunity – and, as teachers, we don't pass up those opportunities."

Morgan applied to the Teacher in Space programme and, in July 1985, then Vice President George H W Bush named her as the runner-up in the contest.

As McAuliffe's backup, Morgan trained alongside her every day for five months at NASA's Johnson Space Center in Texas, so that she would be ready to go into space at a moment's notice should McAuliffe not be able.

Morgan says: "It was much like being back in the classroom and being able to share the experience with one another to get the most out of it. I learned a tremendous amount from Christa. She was a great representative of the teaching profession."

Tragic flight

On 28 January 1986, Morgan stood on the sidelines to watch the Challenger launch and wave off her friends – only to see it explode and fall into the sea. In the

wake of the accident, Morgan became a NASA ambassador to America's education community, assuming the duties of Teacher in Space Designee and working with educational groups across the US to inspire the next generation of scientists.

Morgan says: "Christa was, is and always will be our 'Teacher in Space', our first teacher to fly. She truly knew what this was all about – not just bringing the world to her classroom, but also helping to show the world what all the teachers do across our country day in and day out."

In the autumn of 1986, Morgan returned to Idaho to resume teaching while maintaining her links with NASA. In January 1998, NASA chose her as a mission specialist and she reported for training the following August.

Just as Morgan's dream of travelling into space looked as if it were becoming reality, NASA suffered another tragedy. On 1 February 2003, the Space Shuttle Columbia disintegrated over Texas during re-entry into ►

► Earth's atmosphere, killing all seven of its crew members.

Columbia was the shuttle Morgan had been assigned to ride on her first flight into space. Following its loss, the space shuttle programme was suspended indefinitely.

"Both Challenger and Columbia caused me and NASA to think: what are we doing wrong and how can we make it better? How can we make space flight safer?" she says. "It is a risky business, but we want to make it as safe as we can.

"All the astronauts, all of NASA, have been working really hard and will continue to work hard to try to make space flight as safe as we can possibly make it. It also caused me to think about what's really important. In both situations, we had kids watching adults. Kids learn a lot from watching adults.

"It's not just what we say, but it's what we do. Kids were watching to see what the adults did in a terrible situation. What I thought was really important for kids to see is that we can figure out what's wrong, fix it and move on, and we keep the future open for our young people."

It wasn't until July 2005 that NASA's Space Shuttle programme reconvened with the launch of the Discovery shuttle. Morgan's dream was now back on track and in the summer of 2007, she and the crew of the Endeavour were preparing for take-off. After

a 21-year wait, which shows her enormous patience and perseverance, Morgan became the first teacher in space.

"That's what describes teachers – they have patience and they have perseverance. That's what allows them to do their job so well," she says.

Without limits

"I can't think of anything more important to all of us than our kids and their future," Morgan continues. "To me, space exploration is all about open-ended, never-ending opportunities for our young people. That's what my motivation has been: to help keep the world of opportunities open for our kids."

As well as filling the role of educator in space, Morgan had other duties on board the Endeavour, including operating the robotic arm and helping on the flight deck. But it's the live link-ups with school children back on Earth that she will be most remembered for and that have defined her role as a teacher in space.

Morgan has had two careers in her life – as a teacher and as an astronaut – but she sees similarities between the two. "Astronauts and teachers learn and share. They explore, they discover and then they go learn and share some more. And that's what this is all about. I'd love to fly again and hope to do so and I'll be here ready to contribute once more." ■



The Teacher in Space programme

8 August 2007

Space Shuttle Endeavour launches, making Barbara Morgan the first teacher in space. The mission travels 5.3 million miles and lasts 12 days, 17 hours, 55 minutes and 34 seconds.

1 February 2003

The Space Shuttle Columbia explodes on re-entry, killing all crew. All space shuttles are grounded indefinitely.

January 1998

Barbara Morgan is called up again as Teacher in Space.

28 January 1986

Challenger explodes shortly after take-off, killing Christa McAuliffe and all the crew.

19 July 1985

Christa McAuliffe is chosen as NASA's Teacher in Space. Barbara Morgan is named as her backup.

1985

President Reagan unveils the Teacher in Space programme.



KENNEDY SPACE CENTER, FLORIDA The crew helps Barbara Morgan with the final preparations of her launch and entry suit

