

By Siddharth Raval

Chris Hadfield

A Space Oddity

When Canadian astronaut Chris Hadfield blasted off for his third space mission on 19th December 2012, little did we know that in the next five months he would rock the planet with his outreach activities. He became the first Canadian astronaut to command the International Space Station (ISS), a major accomplishment for Hadfield, who had already visited Russian Space Station Mir in November 1995 and the ISS in April 2001. Hadfield's duties on Expedition 35 included performing "ordinary" robotic operation tasks, operating Canadarm2, and taking part in two space walks, including one unplanned spacewalk to repair a dangerous ammonium leak. But in addition to executing his challenging technical duties, Hadfield brought to the ISS something more that turned out to be just as valuable: a new way to conduct outreach activities that made use, among other things, of his talent for music.

The Space Rockstar

On Christmas Eve 2012, just a few days into his mission, Hadfield wrote and performed "Jewel in the Night." The YouTube video of the performance, later edited with time-lapse images captured from the ISS, was viewed around the world. The lyrics, describing the beauty of Earth as seen from space, introduce a message of peace directed to everyone on planet Earth. "Love for the families that gather below, Love for the stranger that you'll never know, For those who are with you, who wander above."

On February 8, 2013, Hadfield performed I.S.S. (Is Somebody Singing), an original song from aboard ISS accompanied by The Barenaked Ladies' Ed Robertson performing on Earth along with a collegiate choir. The song describes the emotions connected to spaceflight and to the vision of "that ball of shiny blue," that "houses everybody anybody ever knew." The final message is a reflection on the space program, "what once was fueled by fear, now has fifteen



Hadfield playing on the International Space Station, a regular pastime. – Credits: NASA

Nations orbiting together here." The song received huge appreciation, to Hadfield's evident satisfaction. "I want to communicate the incredible experience of being in space — what it's like to launch on a rocket and live on the International Space Station," he said.

A few months later, the song was performed across Canada in a nation-wide sing-along event. Afterwards, Hadfield spoke with curious students gathered at the Ontario Science Center in Toronto. "I think music makes me a better astronaut," commented Hadfield. "The type of skills you develop in learning to play an instrument, with the discipline, learning to play in a group, with the harmony, and then the fundamental skills that come along with handling those things together — they're applicable whether you're an astronaut or really anybody trying to do anything," he told the eager crowd.

Just before leaving ISS, Hadfield did yet another thing which had never been

done before in Space: recording a real music video for his rendition of David Bowie's Space Oddity, while orbiting 370 km above Earth. Bowie's classic takes on new life when recounted from the perspective of a space veteran that has just spent five months in space: "though I've flown one hundred thousand miles, I'm feeling very still, and before too long I know it's time to go." This music video went viral, in just one day receiving more than 1.8 million views.

The Social Media Savvy Astronaut

Hadfield was titled as "perhaps the most social media savvy astronaut ever to leave Earth," by Forbes after accumulating a massive fan-following on social media, including over 1,000,000 Twitter followers as of June 2013. ▶▶

“What once was fueled by fear, now has fifteen Nations orbiting together here,”

From I.S.S. (Is Somebody Singing)



Hadfield looks through a floating ball of water, demonstrating refraction on the International Space Station. – Credits: NASA

For the first six months of 2013, the ISS was the talk of the town, in every town, and the credit goes to Commander Hadfield who updated Earthlings with tweets, Google hangouts, and Facebook posts from Space. Hadfield posted more than 140 educational videos that included demonstrations on brushing teeth, cutting nails, and even crying in space, receiving millions of views on social media. Many astronauts have posted updates on social media, but what made Hadfield different was that he adapted his content to what his audience demanded. Rather than posting long lectures on life in space he made short videos. Hadfield reached out without being too serious or formal, as demonstrated by Nuts In Space, a 27 second video he posted of a can of nuts mixing it up in microgravity. He chatted with Star Trek's original Captain Kirk and a fellow Canadian, William Shatner, just before the latest film of the series was released.

In one of his best outreach efforts, Hadfield worked with Jamie Hyneman and Adam Savage of Mythbusters to perform experiments designed by the two Earthlings and document the kind of activities astronauts perform in their free time. In one episode, Hadfield demonstrated Space Darts, a game that can only be played in space, and also built and tested a game proposed by Hyneman and Savage. "Working with Adam and Jamie was fun!" wrote Hadfield in one of his tweets.

Space Education and Outreach is important to increase public awareness of

“[My mission] included millions of people around the world,”

what is going on in space and to motivate the future generation to pursue STEM careers. “The purpose is to help people to understand what is possible on the space station, and the things we are doing,” Hadfield explained.

During one Reddit Ask Me Anything (AMA) session, Hadfield was asked for advice for students and young people considering a career in space science. Hadfield's response to this question hit the heart of Australian cartoonist Gavin Aung Than, who made a cartoon depicting the astronaut's journey from child to astronaut. “I wish someone had given me that advice when I was younger,” Than told the Huffington Post Canada. “I definitely experienced a few years of drifting aimlessly through life having forgotten what my passion was.”

Return to Earth & Resignation

Commander Hadfield and his team returned to Earth on May 13th in their Soyuz spacecraft. On June 10 2013, Chris Hadfield announced his retirement after a 35 year career in aerospace. “I've

decided to retire from government service after 35 years of serving our country,” said Hadfield while announcing his retirement during a Canadian Space Agency press conference. “I didn't say I don't want to do this anymore, but every one of us is going to retire. This is just a natural part of the process.”

“[My mission] included millions of people around the world,” he added. “We, as a combined force, reached a level of public involvement and public interest which was unprecedented.”

Hadfield hasn't decided on his further plans but for the near future, he expects to make some public appearances and continue working with students. With more than 140 educational videos, 45,000 pictures, and numerous conferences, Hadfield has charmed space enthusiasts and students across the world. Since he blasted off to ISS on his third trip, Hadfield became perhaps the most celebrated astronaut, reaching a spot beside Neil Armstrong, his hero and inspiration.

For a gallery of the most significant videos of Hadfield, visit http://bit.ly/ssm_hadfield



An astronaut's advice, delivered by Hadfield and illustrated by Gavin Aung Than.

Credits: zenpencils.com