

The International Space Station

The First 50 Expeditions

About the Visualization

The International Space Station (ISS) is one of the greatest endeavours ever undertaken by the human race, representing the peak of scientific ingenuity and global cooperation.

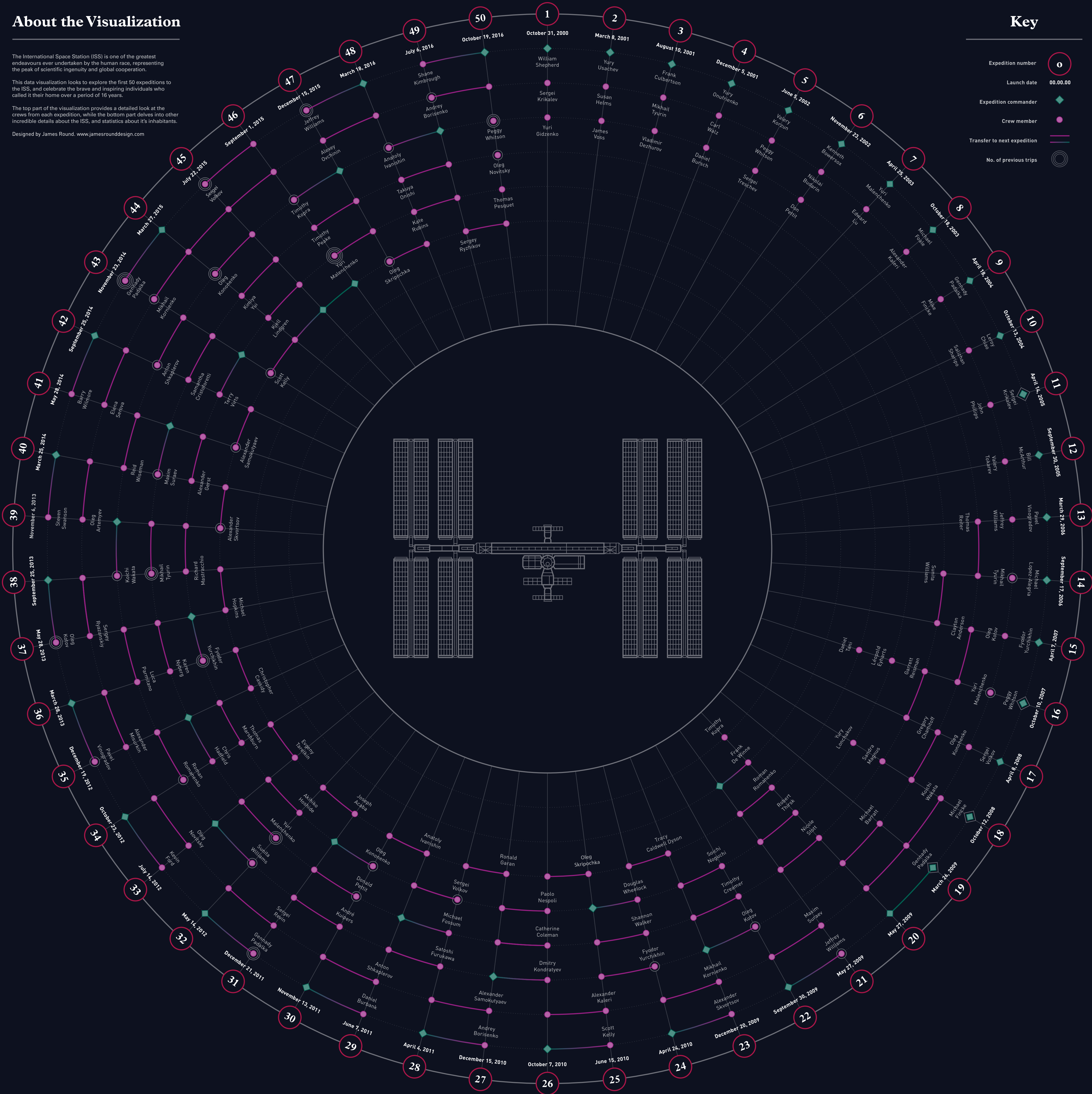
This data visualization looks to explore the first 50 expeditions to the ISS, and celebrate the brave and inspiring individuals who called it their home over a period of 16 years.

The top part of the visualization provides a detailed look at the crews from each expedition, while the bottom part delves into other incredible details about the ISS, and statistics about it's inhabitants.

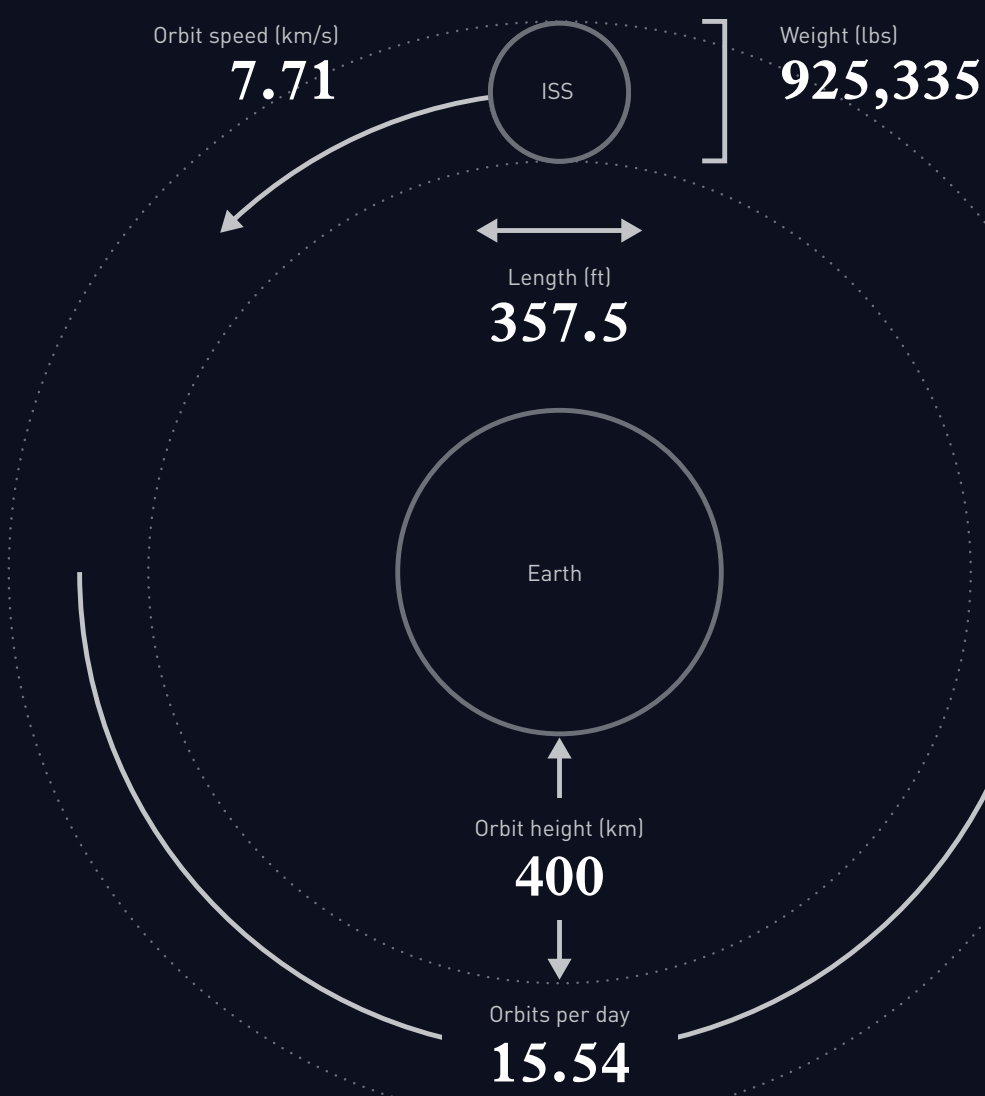
Designed by James Round, www.jamesrounddesign.com

Key

- Expedition number 0
- Launch date 00.00.00
- Expedition commander
- Crew member
- Transfer to next expedition
- No. of previous trips



A Scientific Marvel



\$100bn

The estimated cost of the ISS, making it the most expensive object ever built by mankind. Roughly half of the money came from the USA.

8 miles

The length of the wiring found through the various electrical systems aboard the ISS.

3,300,000

The number of lines of code used to control the ISS from the ground. This is supported by 1.8 million lines of flight software code.



240ft

The length of the solar array wingspan on the ISS. It's 28ft longer than the wingspan of a Boeing 777, which is 212ft.

04

times bigger than the Russian station Mir.

05

times bigger than the US station Skylab.

The ISS moves so fast that it could travel to the moon and back in a day.

A Global Endeavour

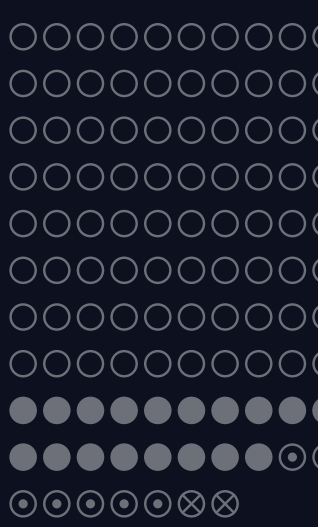
107

Astronauts and cosmonauts, bravely made the 400km journey from Earth to the International Space Station during the first 50 expeditions.

Nationality

- 49 crew members were American astronauts.
- 40 crew members were Russian cosmonauts.
- 06 ISS crew members were from Japan.
- 03 ISS crew members were from Italy.
- 02 Canada, France and Germany have each had two crew members.
- 01 Belgium, the United Kingdom and the Netherlands have each had one crew member.

16 The number of nations involved in constructing the ISS. The United States, Russia, Canada, Japan, Belgium, Brazil, Denmark, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom.



Gender

95 members of the crew were male, or 88.5%.

12 members of the crew were female, or just 11.2%.

Of the 12 female astronauts who took part in the first 50 expeditions aboard the ISS, 10 of them were American, one was from Russia and one was Italian.

Trips

- 80** individuals made a single trip.
- 18** people visited the ISS on two occasions.
- 07** people made the trip to the ISS three times.
- 02** people have been up to the ISS four times. Gennady Padalka and Yuri Malentchenko.

Gennady Padalka

Has spent more time in space than any other human in history. As of ISS Expedition 44, he has spent a total of 879 days in space. Yuri Malentchenko currently ranks second.

Peggy Whitson

Holds the record for the longest single spaceflight by a woman. After the planned conclusion of Expedition 52 it will be roughly 290 days. In addition to this, she is currently the oldest woman to have ever visited space.

One-Year Mission

Out of the first 50 expeditions, Mikhail Korniyenko and Scott Kelly spent the most time aboard the ISS in a single trip. They were part of a year long research project to study the health effects of long term space flight. The trip lasted 342 days, and the data will be used to inform future manned space explorations, such as the mission that will eventually take a crew to Mars.

Credits & Notes

All of the content that has been used to create this data visualization can be found on the following websites:

Wikipedia, [List of International Space Station expeditions](https://en.wikipedia.org/wiki/List_of_International_Space_Station_expeditions)

en.wikipedia.org/wiki/List_of_International_Space_Station_expeditions

Wikipedia, [List of spaceflight records](https://en.wikipedia.org/wiki/List_of_spaceflight_records)

en.wikipedia.org/wiki/List_of_spaceflight_records

Wikipedia, [ISS year long mission](https://en.wikipedia.org/wiki/ISS_year_long_mission)

en.wikipedia.org/wiki/ISS_year_long_mission

NASA, [Past Expeditions](https://www.nasa.gov/mission_pages/station/expeditions/past.html)

www.nasa.gov/mission_pages/station/expeditions/past.html

NASA, [ISS Facts and Figures](https://www.nasa.gov/feature/facts-and-figures)

www.nasa.gov/feature/facts-and-figures

Mental Floss, [15 Out-of-this-world facts about the ISS](https://www.mentalfloss.com/article/59462/15-out-of-this-world-facts-about-the-iss)

mentalfloss.com/article/59462/15-out-of-this-world-facts-about-the-iss

Gizmodo, [15 awesome facts about the ISS](https://gizmodo.com/15-awesome-facts-about-the-international-space-station-146826776)

http://gizmodo.com/15-awesome-facts-about-the-international-space-station-146826776

The data concerning the ISS expeditions includes official crew members only, and does not list other visitors to the ISS, such as short term visitors and supply missions.

The launch dates listed refer to the start of each expedition. In some cases, crew members joined the expedition at a later date than the initial launch. These dates are not listed.

There appeared to be different ways to spell the English versions of several Russian crew member's names. Every effort has been made to include the correct spelling.