

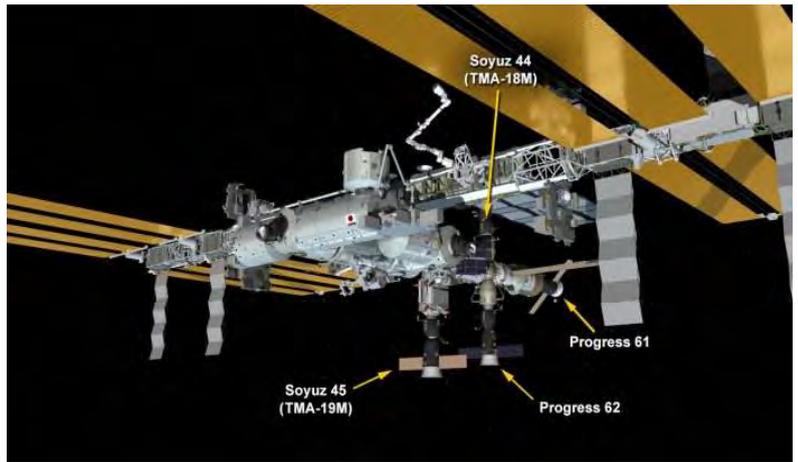
## CELEBRATING 100,000 ORBITS FOR ISS

Launched November 20, 1998, the International Space Station (ISS) marked an historic achievement for humans in space when it completed 100,000 orbits around Earth on May 16, 2016. At that time, it travelled more than 4 billion km, a distance equivalent to 10 round trips between Earth and Mars. To honour this unique feat of human ingenuity, here are seven things about ISS you might not have known:



The International Space Station (ISS), the world's orbiting space station. It's been permanently occupied since 15 years and 275 days since the arrival of Expedition 1 on November 2, 2000.

1. **ISS's original mission was to establish a living laboratory in space.** NASA and the Russian Space Agency (RSA) worked cooperatively to establish the space station:
2. **ISS began with just 2 modules, from U.S. and Russia.** ISS was born in 1998, the United States space module Unity docked with a Russian module Zarya using a Canadian-built robotic arm on the space shuttle.
3. **ISS is most expensive object ever built by humans.** That's according to the Guinness Book of World Records, with places its cost at over \$100 billion U.S. drawn from U.S., Russian, European, Japanese, and Canadian contributions.
4. **ISS is still the only habitable laboratory currently operating in microgravity.** The huge list of benefits for humanity of this unique laboratory environment can be found on the NASA ISS website.



Here's ISS on February 19, 2016, at a time when 4 spacecraft are docked with the space station

5. **ISS generates its own power via solar panels.** Electricity is generated on board by four solar arrays. Two blankets of solar cells make up a solar array wing, or SAW on the station. Each wing is 35 metres long by 12 metres wide, weighs more than 1,000 kg and generates 120 kilowatts of electricity.
6. **U.S. re-supply missions to ISS are now via private contracts.** The Dragon spacecraft of SpaceX of Hawthorne, California became the world's first privately held craft launch to ISS and dock with it. That happened on May 25, 2012. Later, SpaceX recovered supply ship back on Earth.
7. **You can see ISS crossing Earth's skies.** Like many Earth-orbiting satellites, the International Space Station can often be seen at night crossing the sky over your location. Seeing it is easy. You just need to know when and where to look.

Since its inception, the station has also played a key role in strengthening international partnerships and cooperation. After 18 years of intergovernmental negotiations and redesigns, the ISS is the most complex, large-scale engineering project ever created by a group of nations. Assembled in pieces over the course of a decade, it has seven U.S. modules (Unity, Destiny, Quest, Tranquility, Harmony, Cupola, and Leonardo), five Russian modules (Zarya, Zvezda, Pirs, Poisk and Rassvet), two Japanese modules (the JEM-ELM-PS and JEM-PM) and one European module (Columbus). The modules include living quarters, two bathrooms, exercise equipment, sleeping quarters, and various laboratories, spanning about the area of a football field. In June 2016, the ISS team added a new module for the first time since 2011. The team managed to get the Bigelow Expandable Activity Module (BEAM) fully inflated late in the day on May 28, 2016, as ISS flew over the south Pacific at an altitude of 405 km. It was nearly a seven-and-a-half hour operation to inflate the module.

All food, supplies and research payloads are brought to ISS from Earth through a variety of international government and private cargo spaceship. **With its history of cooperation and benefits to humanity, the ISS is scheduled to continue operating until at least 2028.**

AK, with EarthSky Notes