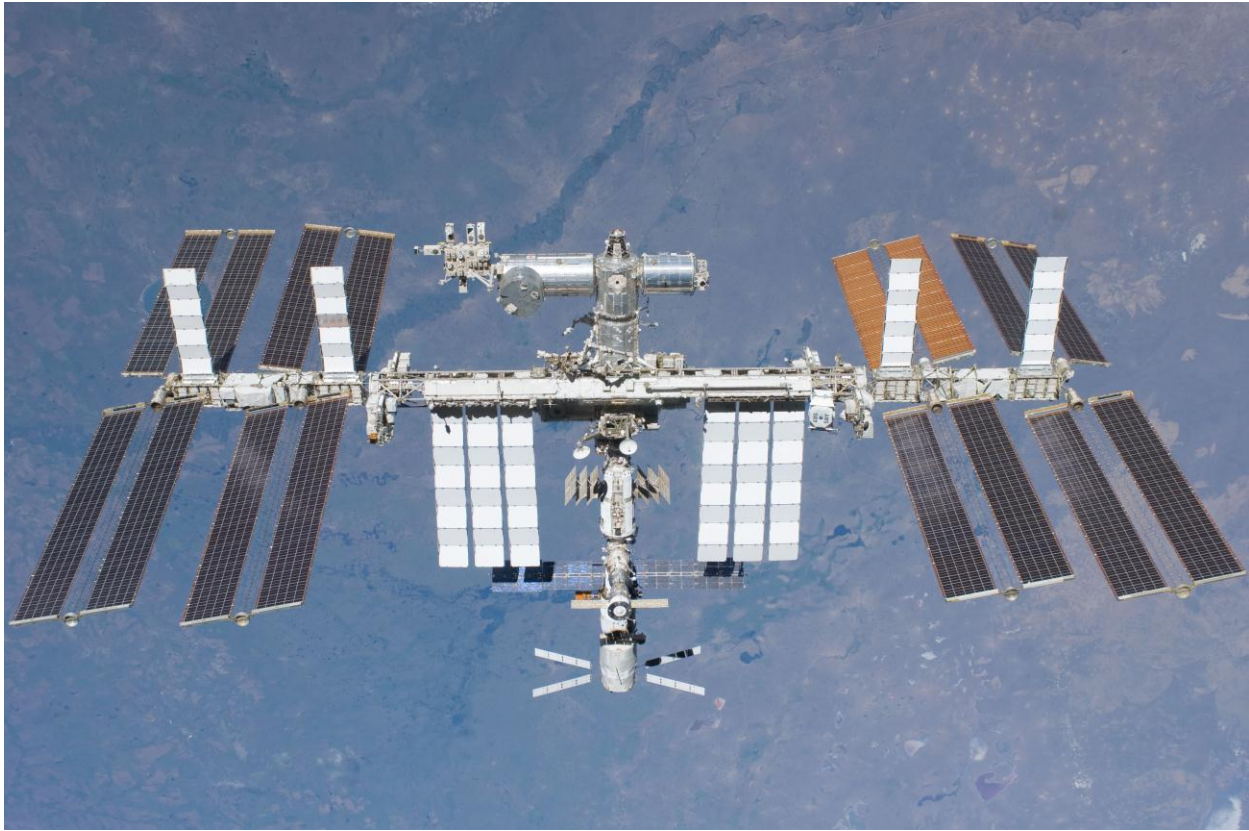


International Space Station Utilization Statistics Expeditions 0-34 December 1998 – March 2013

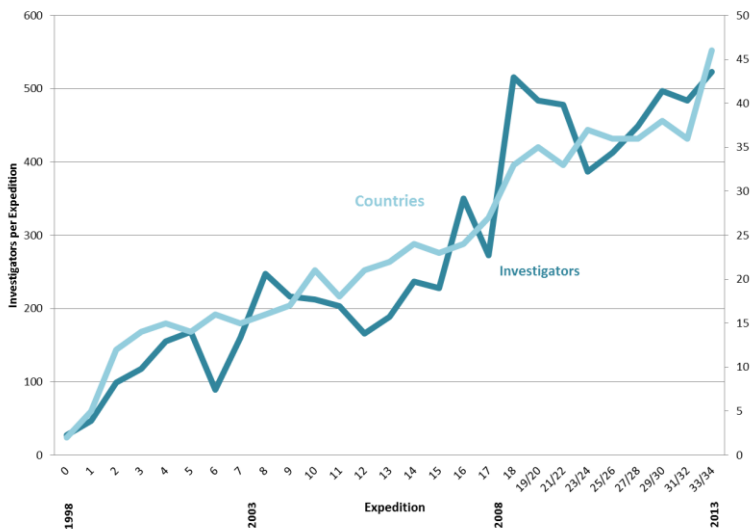


Number of Investigations Performed on the International Space Station

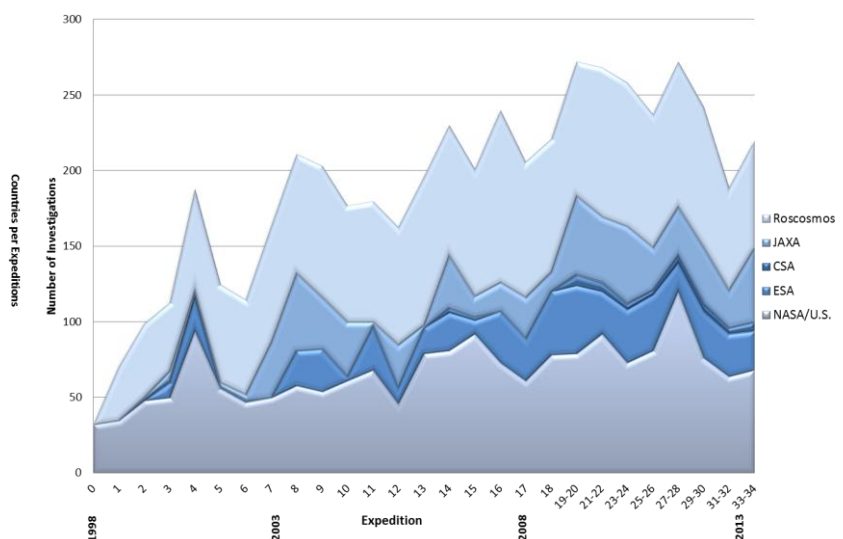
The information below provides an overview of ISS utilization up to the end of **March 2013**. An expedition refers to the nominal 6-month period that a single crew is on ISS. The utilization reflects activities of all of the ISS International Partners: CSA, ESA, JAXA, NASA, and Roscosmos. An investigation is defined as a set of activities and measurements (observations) designed to test a scientific hypothesis, related set of hypotheses, or set of technology validation objectives. Investigators include the principle investigator(s) and co-investigator(s) that are working to achieve the objective of the investigation.

	ISS Expeditions 31/32 Apr 2012 – Sept 2012	ISS Expeditions 33/34 Sept 2012 – Mar 2013	ISS Expeditions 0-34 Dec 1998 – Mar 2013
Number of Investigations	189	220	1502*
New Investigations	29	47	-
Completed/Permanent Investigations	34	39	1068
Number of Investigators with Research on the ISS	484	523	1667
Countries with ISS Investigations	34	46	69

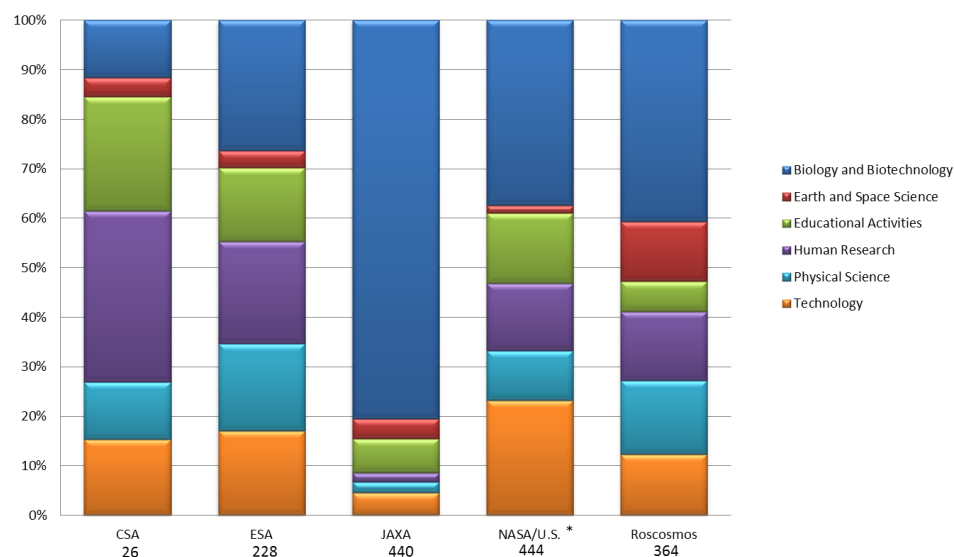
Number of Investigators with Research on the ISS and Countries per Expedition
December 1998 - March 2013



Research and Technology Investigations
December 1998 - March 2013

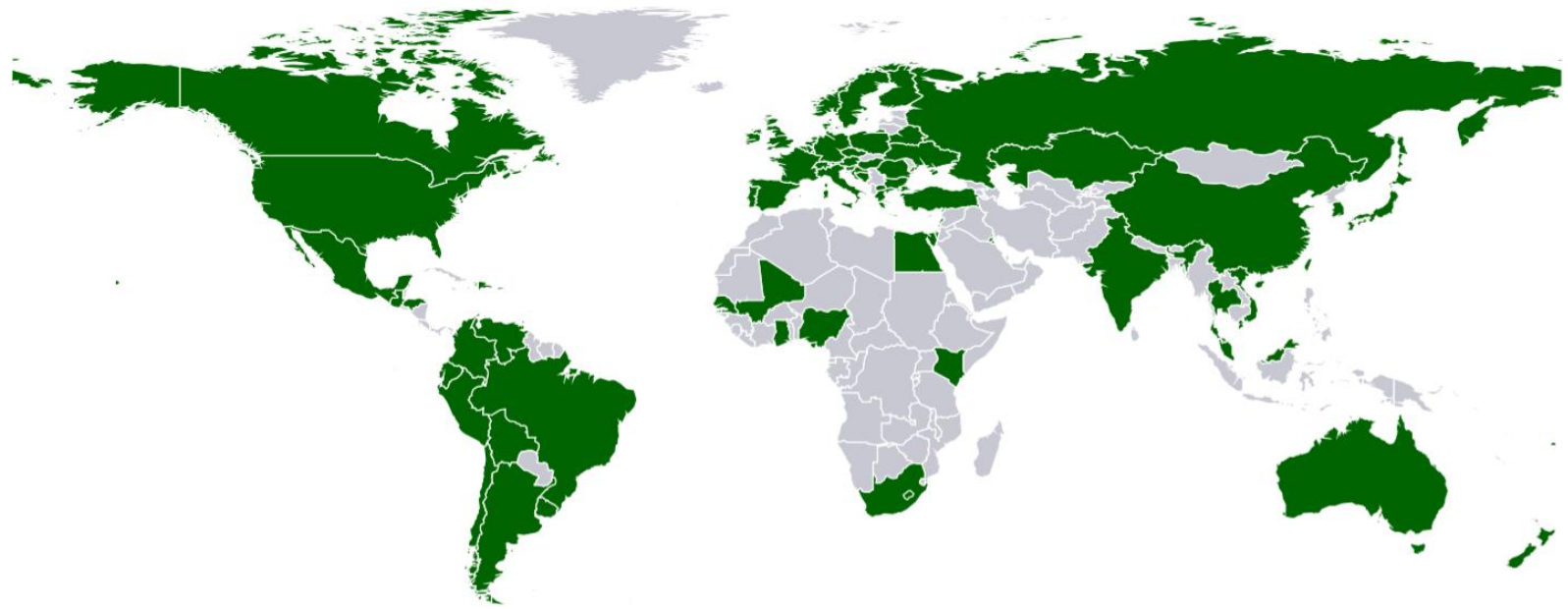


Research Discipline of ISS Investigations By Partner Agency:
Expeditions 0-34
December 1998 - March 2013



NASA utilization includes investigations by the Italian Space Agency (ASI), an ISS Participant Agency.

*NASA has re-characterized the counting of NASA educational activities and student competitions, which affects NASA and Total investigation counts by 81 compared to the previous report.



All the highlighted countries have participated in ISS Research and Education Activities.

Research Resources

Resources for the ISS are often described as upmass (mass of material brought to the ISS), downmass (mass of material returned from ISS) and crewtime (amount of time crew dedicates to an activity).

Research Resources	ISS Expeditions 31/32 Apr 2012 – Sept 2012	ISS Expeditions 33/34 Sept 2012 – Mar 2013	ISS Expeditions 0-34 Dec 1998 – Mar 2013
Upmass	1642.5 kg	805.5 kg	48835.3 kg
Downmass	124.9 kg	399.1 kg	11320.0 kg
Crew time	1176.7 hrs	1614.2 hrs	19623.2 hrs

Number of Current and Future Investigations on the International Space Station

The investigations statistics represented below reflect research planned for Expeditions 35/36 and 37/38. The numbers of investigations actually performed can only be reported after completion of the expeditions.

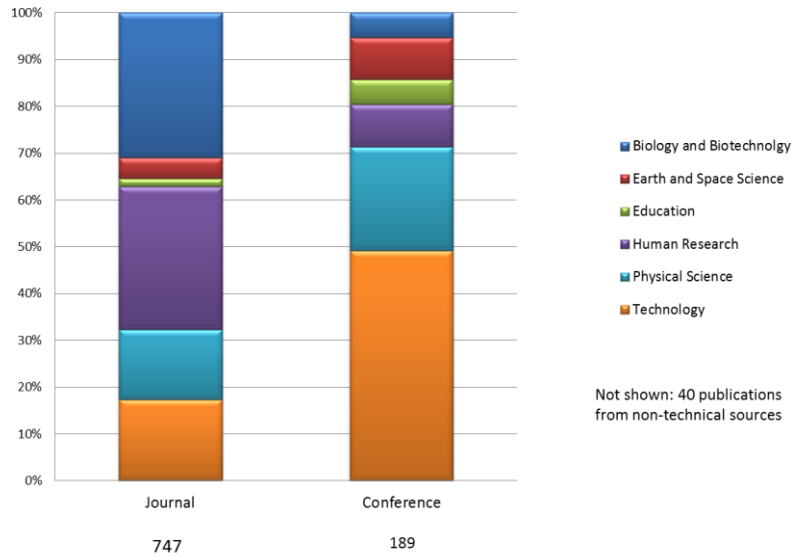
	ISS Expeditions 35/36 Mar 2013 – Sept 2013	ISS Expeditions 37/38 Sept 2013 – Mar 2014	ISS Expeditions 35-38 Mar 2013 – Mar 2014
Total Investigations	216	193	274
New Investigations	39	43	82
Number of Investigators with Research on the ISS	523	493	648
Countries with ISS Investigations	29	27	29

Top 20 Journals with ISS Results*

1. Nature
2. Proceedings of the National Academy of Sciences of the United States of America
3. Physical Review Letters
4. Journal of Biological Chemistry
5. PLoS ONE
6. Journal of Neuroscience
7. Journal of Geophysical Research
8. Journal of Physical Chemistry B
9. Geophysical Research Letters
10. Langmuir
11. NeuroImage
12. Applied and Environmental Microbiology
13. New Journal of Physics
14. Brain Research
15. FASEB Journal
16. Journal of Urology
17. Radiology
18. American Journal of Physiology: Heart and Circulatory Physiology
19. New Phytologist
20. Ophthalmology

*Journals are listed in *Eigenfactor*® order. *Eigenfactor*® is an estimate of the percentage of time users spend with a journal, with citations from influential journals ranked higher.

ISS Results Publications through March 2013



International Space Station Research – Did you know?

- Ground-breaking studies on ISS indicate that adequate energy intake, vitamin D and high load resistive exercise can mitigate bone mineral loss.
- Candidate treatments for a form of muscular dystrophy and for prostate cancer have been developed based on space station research results.
- Space station utilization has involved over 27 million students in the U.S., and 42 million globally.
- Capillary flow experiments on the space station have produced universal equations for modeling the behaviors of fluids in space.
- Crew- and ground-controlled cameras assist response to natural disasters, such as floods, wildfires, earthquakes, tsunamis, and volcanic eruptions.
- Hyperspectral images show water visibility and chlorophyll content and support environmental monitoring of coastal regions.
- Recent plant studies on ISS indicate that roots grow toward water and nutrients, independent of gravity, which is promising news for cultivating food plants in space and on Earth.
- AMS has collected over 25 billion observations of galactic cosmic rays and published its first paper in the prestigious Physical Review Letters. AMS detected positrons (the antimatter to the electron) between 10 and 300 Giga electron Volts, proving with unprecedented accuracy that there are more positrons in the universe than would be expected from “natural causes”.

This is a product of the ISS Program Science Forum comprised of representatives from the Canadian Space Agency (CSA), European Space Agency (ESA), Japan Aerospace Exploration Agency (JAXA), National Aeronautics and Space Administration (NASA) and the Federal Russian Space Agency (Roscosmos).

Additional Resources:
 ISS Research and Technology on the Web:
<http://www.nasa.gov/iss-science/>
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