AWINDOW TO THE **EARTH** From the ISS, astronauts take millions of photos of the Earth below. The station's takes it over **90%** of the

CELEBRATING 20 YEARS DOWN TO EARTH

OF HUMAN PRESENCE ON THE ISS

ISS International Partners: NASA, ROSCOSMOS, CSA, ESA, and JAXA

RESEARCH &

EDUCATION

A GLOBAL ACHIEVEMENT

Bringing scientific results

important role for the ISS.

From December 1998 to

March 2019 78,514 kg of

23,559 kg were returned

EARTH TO ISS...

260 miles above the

a bit farther than the

It can take as few

as 6 hours for a

station from Earth.

spacecraft to

arrive to the

IN ORBIT

The ISS travels at a

speed of 5 miles per

second or 17,500 mph.

In 24 hours, the space

station makes 16 orbits

h, traveling

The ISS is approximately

surface of the Earth, just

to the station, and

back to Earth is an

75k —

50k —

as from 19 countries have visited the International

An international crew of six live and work aboard the ISS. Between December 1998 and March 2019, over 4,20 representing more than 100 countries and counting carried out

> the boundaries of human innovation and problem solving.

► - - - Power Generation: 4 pairs of solar arrays

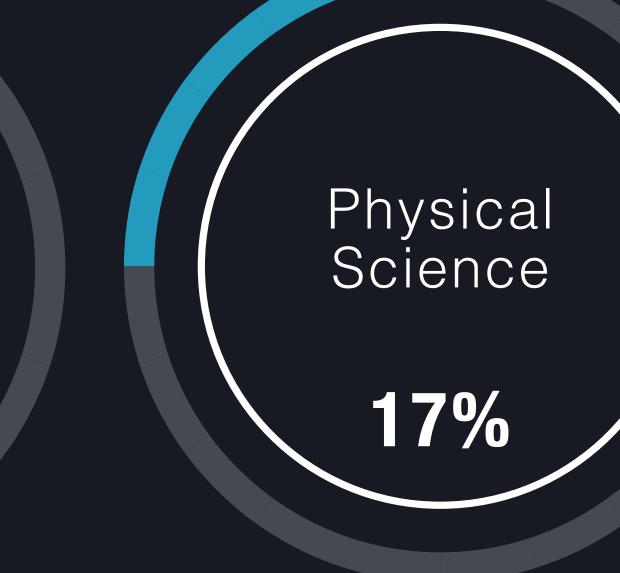
L - - - - - - Pressurized Module Length: 167 feet

The space station is 357 feet wide, one yard shy of the length of an American football field including the end zones.

JOURNAL PUBLICATIONS BY DISCIPLINE



RESEARCH



CONFERENCE PAPERS

NON-TECHNICAL

Where have ISS resul

been published?

(data through March 2019)







1000

EFFECTS ON THE HUMAN BODY

THE m; CrOGRAVITY

than 100 countries and counting have conducted

WHY CONDUCT SCIENCE IN SPACE?

WHAT CAN MICROGRAVITY REVEAL?

most 3,000 experiments in microgravity.

The space station offers a great

expose materials to the harsh

vantage point from which we can

study the Earth, allows scientists to

environment of space and lets us

take us farther into deep space,

Microgravity turns everything we

know upside down.

New insights into systems

are revealed, creating

new understandings.

LABORATORY

long-duration research

microgravity affects

on how living in

the human body.

To mitigate the loss of muscle and bone mass in microgravity, astronauts exercise at least 2 er day and follow a careful diet.



The International Space Station (ISS) is a unique scientific platform where astronauts

conduct experiments across multiple disciplines of research, including Earth and

demonstrations that could not be done anywhere else in the world. In 2020, the ISS

celebrates 20 years of continuous human presence aboard the orbiting laboratory.

space science, biology, human physiology, physical sciences and technology

We continue to study changes in s and other physiological systems to develop ways to keep astronauts safe in space and help people back on Earth.

BENEFITTING EARTH & EXPLORATION



Research on the station, in microgravity, has exploration of deep space as well as

NUMBERS OF INVESTIGATIONS & INVESTIGATORS INVOLVED PER EXPEDITION



32%

Earth and

14%

FUN FACT



Christina Koch and Jessica Meir conducted

800 600 400 200

19/20 27/28 35/36 43/44 55/56

almost 3,000 completed and ongoing investigations.

The space station is a major feat of engineering that has pushed

STATION STATS

provide 75 to 90 kilowatts of power

Solar Array Length: **240 feet**, about the same as an Airbus A380

Mass: **925,335 pounds**

Up to eight spacecraft can connect to the space station at any time.

SPACEWALKS



pacesuits and 54 were in Russian spacesuits.

The Water Recovery System recycles 93% of space station waste water, reducing the dependence on water delivered by a cargo spacecraft.

DID YOU KNOW?

