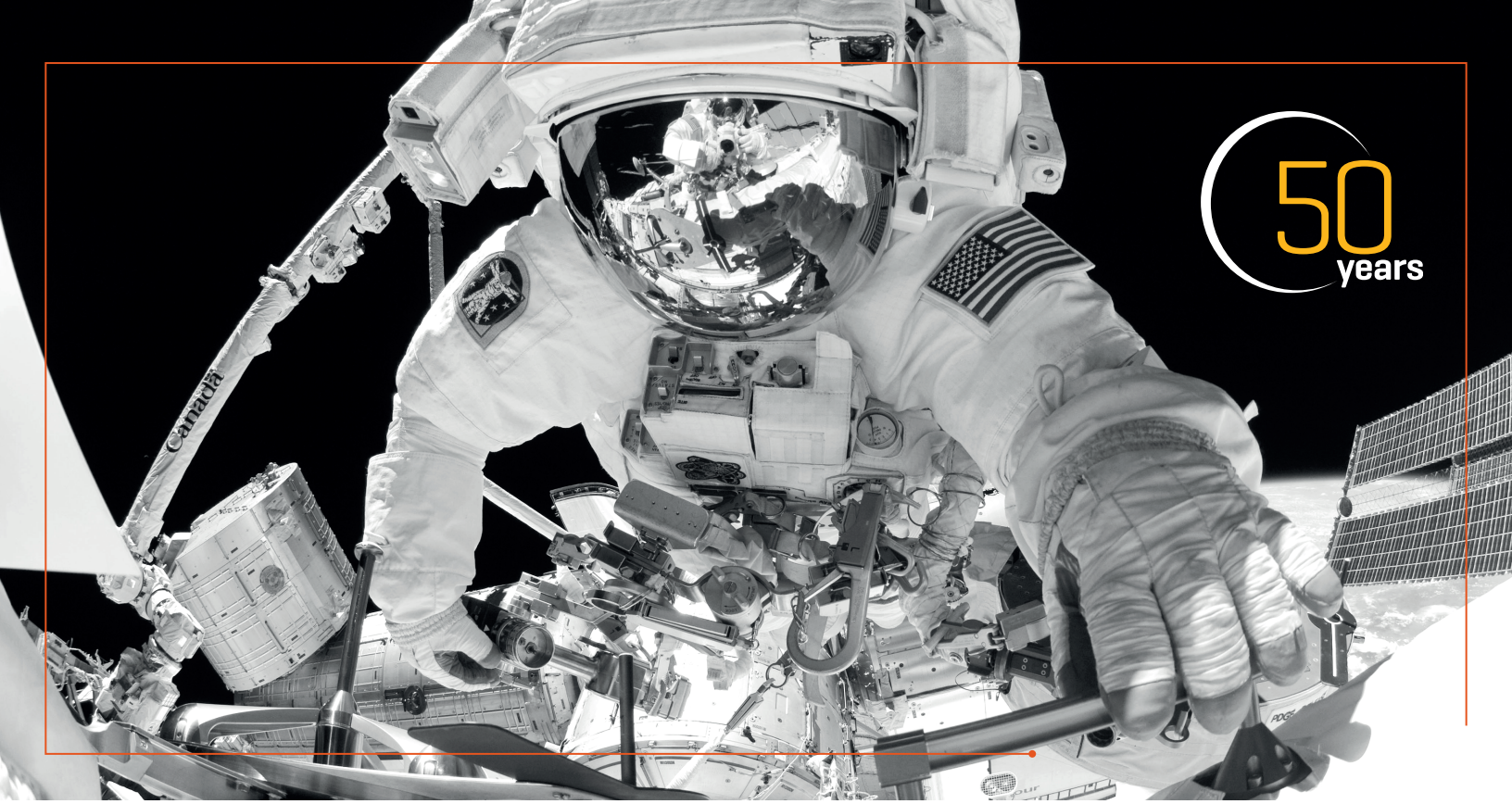


COLLINS AEROSPACE

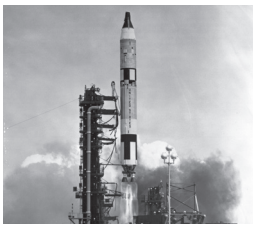
INNOVATION IN SPACE EXPLORATION

Collins Aerospace has played a role in many of NASA's most significant milestones. This heritage of innovation continues as we build systems to serve the next generation of space exploration.

History of space innovation

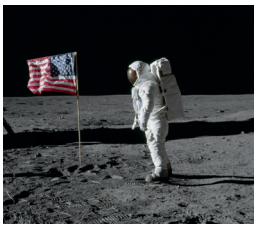
Collins Aerospace has been enabling life and communications in space for more than 50 years.

1960s — present



PROJECTS MERCURY AND GEMINI

Provided voice, telemetry and precision tracking data

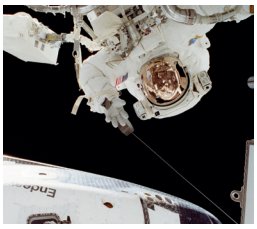


PROJECT APOLLO

Developed the spacesuit and audio/video technology for our first steps on the moon; Earth-based communications/tracking network; radio, data and communications; and life support technology

SKYLAB

Transmitted voice and data with Collins communication technology



SPACE SHUTTLE

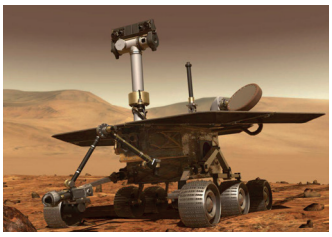
Utilized our extravehicular mobility unit (EMU) during satellite deployment and retrieval/maintenance; and our avionics during landing

INTERNATIONAL SPACE STATION

Continue to enable a habitable environment for the crew with our environmental control and life support systems; our EMUs supported assembly in 2000

Collins Aerospace

A continuing legacy of exploration



MARS ROVER

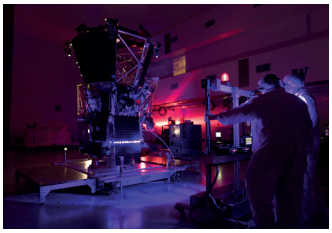
Since 2003, we have provided multiple lens designs and assemblies for the Mars Rover cameras at the Jet Propulsion Laboratory (JPL). Lens assemblies were also used as part of the JunoCam for the Jupiter mission.

SPACE WHEELS

Our space wheel technology has accumulated more than 10,000 years of in-orbit time on board nearly 500 orbiting satellites for high precision navigation and operational in-orbit control of the spacecraft.

ORION

We provide thermal control, life support and power management and distribution systems for this spacecraft that will take astronauts on deep space missions beyond Low Earth Orbit.



PARKER SOLAR PROBE (PSP)

The Parker Solar Probe will fly closer to the sun's surface than any other spacecraft. The PSP is protected by the innovative Solar Array Cooling System designed and developed by Collins Aerospace.

FUTURE MISSIONS TO MOON / MARS

We are advancing the technologies needed for transit, exploration and habitat on Mars. These include advanced suit technologies and environmental control and life support systems that will enable longer duration exploration missions into deep space.

THE EXTRAVEHICULAR MOBILITY UNIT (EMU) IS CONSIDERED THE WORLD'S SMALLEST SPACECRAFT

The EMU can protect astronauts in temperatures ranging from -250° F to 250° F (-156° C to 121° C).

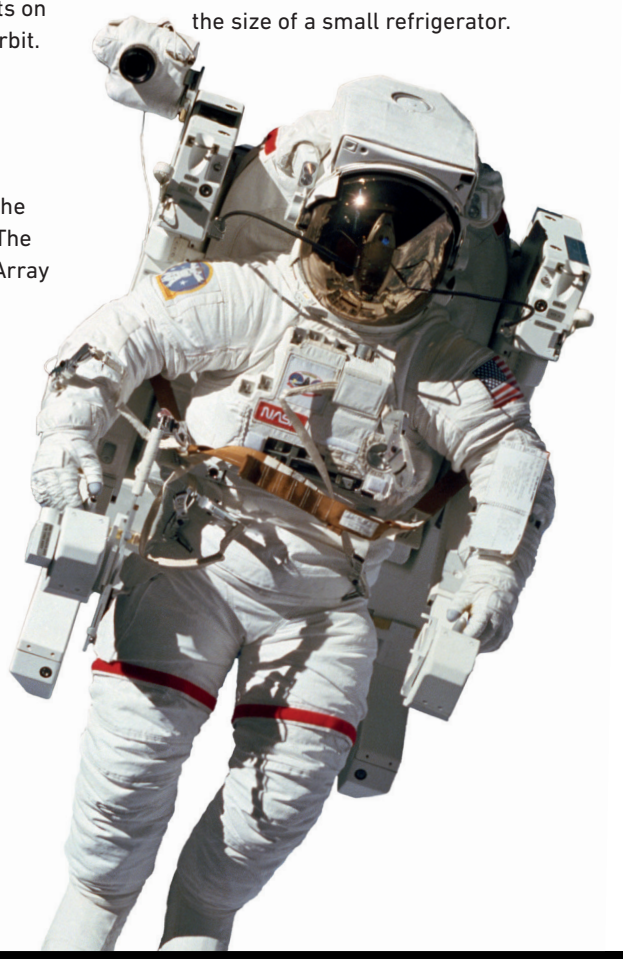
The EMU protects astronauts from micrometeoroids traveling up to 17,000 mph [27,358 km/h].

The EMU weighs approximately 275 lbs. [125 kg] and contains more than 18,000 parts.

To date, there have been nearly 270 spacewalks from the shuttle or ISS in the spacesuit.

The longest spacewalk was 8 hours, 29 minutes.

The interior volume of the EMU is about 5.5 cubic feet [0.15 cubic meters] – about the size of a small refrigerator.



Collins Aerospace

Collins Aerospace
860.654.4092
loel.goldblatt@collins.com
collinsaerospace.com