ASTRONAUT STEVE MACLEAN



Canadian Space Agency, 2008, Image Gallery: Steve MacLean. Retrieved March 2, 2008, from http://www.espace.gc.ca/asc/app/gallery/results1.asp?session=

Figure C-1 Astronaut Steve MacLean

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

ASTRONAUT STEVE MACLEAN

Selected as one of the first six Canadian astronauts in December 1983, Steve MacLean began astronaut training in February 1984. From 1987 to 1993 he was the Program Manager for the Advanced Space Vision System (ASVS), a computer-based camera system designed to provide guidance data that enhances the control of both Canadarm and Canadarm2. From 1988 to 1991 he also assumed the role of Astronaut Advisor to the Strategic Technologies in Automation and Robotics (STEAR) Program.

MISSIONS

STS-52

Mission: U.S. Microgravity Payload-1 (USMP-1); Laser Geodynamic Satellite II (LAGEOS II).

Space Shuttle: Columbia.

Launched: October 22, 1992, 1:09:39 p.m. EDT.

Landed: November 1, 1992, 9:05:53 a.m. EST.

Mission Duration: 9 days.

Orbit Altitude: 163 nautical miles.

The primary mission objectives were the deployment of the LAGEOS-II, a joint effort between NASA and the Italian Space Agency (ASI), and also operation of the USMP-1.

In addition to LAGEOS II and USMP-1, other mission objectives included:

- Canadian experiments, CANEX-2, located in both the orbiter's cargo bay and mid-deck, consisting of:
  - Space Vision System (SVS),
  - Materials Exposure in Low-Earth Orbit (MELEO),
  - Queen's University Experiment in Liquid-Metal Diffusion (QUELD),
  - Phase Partitioning in Liquids (PARLIQ),
  - Sun Photospectrometer Earth Atmosphere Measurement-2 (SPEAM-2),
  - Orbiter Glow-2 (OGLOW-2),
  - Space Adaptation Tests and Observations (SATO), and
  - A small, specially marked satellite, the Canadian Target Assembly, which was deployed on day nine to support SVS experiments; and
- three independent sensors provided by the European Space Agency, including:
  - Modular Star Sensor,
  - Yaw Earth Sensor, and
  - Low Altitude Conical Earth Sensor.

STS-115

Mission: Installation of the P3/P4 truss arrays on the International Space Station.

Space Shuttle: Atlantis.

Launched: September 9, 2006 at 11:15 a.m. EDT.

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

Landed: September 21, 2006 at 6:21 a.m. EDT.

Mission Duration: 12 days.

Orbit Altitude: 122 nautical miles.

The STS-115 crew delivered and installed the P3/P4 truss arrays on the ISS. Three spacewalks were carried out to put the new P3/P4 truss in service. Spacewalkers, including Steve MacLean, connected power cables and activated gear readying the P3/P4, and its unfurled solar arrays, for power generation.

The STS-115 and Expedition 13 crews utilized both shuttle and station robotic arms, Canadarm and Canadarm2, during installation activities.

PLACE AND DATE OF BIRTH

Born December 14, 1954, in Ottawa, Ont.

EDUCATION

Steve MacLean's education includes:

- Primary and secondary school in Ottawa,
- Bachelor of Science (Honours) in Physics in 1977 from York University, and
- Doctorate in Physics in 1983 from York University.

PROFESSIONAL EXPERIENCE

From 1974 until 1976 Steve MacLean worked in sports administration and public relations at York University, and competed with the Canadian National Gymnastics Team from 1976 to 1977. He taught part-time at York University, from 1980 until 1983, and then became a visiting scholar at Stanford University. As a laser physicist, MacLean's research included work on electro-optics, laser-induced fluorescence of particles and crystals, and multi-photon laser spectroscopy.

MacLean was the Chief Science Advisor for the International Space Station from 1993 until 1994, when he was appointed Director General of the Canadian Astronaut Program for a two-year period.

In August 1996, MacLean began mission specialist training at the Johnson Space Center in Houston, Texas. After successfully completing basic training in 1998, he continued with advanced training while fulfilling technical duties in the NASA Astronaut Office Robotics Branch. Later, MacLean served as CapCom (Capsule Communicator) for both the ISS Program and the Shuttle Program at the Johnson Space Center.

In 2007, MacLean was Chief Astronaut for the CSA, coordinating the astronaut activities from CSA headquarters.

SPECIAL HONOURS

Steve MacLean's special honours include:

- recipient of the President's Award (Murray G. Ross Award) at York University,
- recipient of a Natural Sciences and Engineering Research Council of Canada (NSERC) Postgraduate Scholarship,
- recipient of two Ontario Graduate Scholarships,
- recipient of a NSERC Postdoctoral Fellowship, and
- recipient of honorary advanced degrees from:
    - Collège militaire royal de Saint-Jean in Que.,

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

- York University in Toronto, and
- Acadia University in Wolfville.

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.