CHC 2012 Keynote Address by Steve MacLean

The Canadian Hydrographic Conference 2012, to be held from 15th to 17th May 2012 in Niagara Falls, Canada, has announced Steve MacLean, president of the Canadian Space Agency, as keynote speaker. Dr. Steve MacLean became President of the Canadian Space Agency (CSA) effective on 1st September 2008. Prior to his appointment as President, Dr. MacLean was Chief Astronaut of the Canadian Space Agency and coordinated astronaut activities.

He also championed studies, served on steering committees and was the Canadian voting member on the Multi-Crew Operational Panel for the International Space Station - an international panel responsible for the selection of crews and crew operations on the station. In addition, he actively promoted an alignment of university activities with CSA's space priorities.

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

Selected as one of the first six Canadian astronauts in December 1983, Dr. 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 and the Laser Camera System (LCS). Both systems are still in operation on the shuttles and the International Space Station. From 1988 to 1991 he also assumed the role of Astronaut Advisor to the Strategic Technologies in Automation and Robotics (STEAR) Program.

From 22nd October to 1st November 1992, Dr. MacLean flew onboard Space Shuttle Columbia as a Payload Specialist for Mission STS-52. During this mission, he performed a set of seven experiments known as CANEX-2, which included an evaluation of the Space Vision System.

Dr. MacLean was the Chief Science Advisor for the International Space Station from 1993 to 1994 during which time he developed a plan that streamlined science management for the space station. He was then appointed Director General of the Canadian Astronaut Program for two years. He was responsible for six major projects that flew on shuttle and space station missions and negotiated 9 of 13 Canadian shuttle flights with NASA.

In the aftermath of the Space Shuttle Columbia accident in 2003, Dr. MacLean became the Casualty Assistance and Calls Officer for Ilan Ramon, a role that he still plays today. He was also actively involved in NASA's efforts to increase the safety of the crew and the security of the vehicle until Return to Flight in 2005. As such, he became the technical lead for the Canadian-built Orbiter Boom Sensor System and a member of the NASA board responsible for ensuring the integrity of the vehicle's thermal protection system prior to re-entry into the atmosphere.

Dr. MacLean went to space for the second time on Mission STS-115, and served as mission specialist on Space Shuttle Atlantis acting as flight engineer and robotics lead for the first assembly flight of ISS after the Columbia accident. He became the first Canadian to operate Canadarm2 in space when the crew installed trusses and deployed solar array panels on the International Space Station. On this mission, Dr. MacLean also became the second Canadian to walk in space.

A strong supporter of science literacy and child education, Dr. Steve MacLean holds a Bachelor of Science (Honours) and a Doctorate in Physics both from York University in Toronto. He published over 25 scientific and technical publications and has received numerous international honours, including the Canadian Meritorious Service Cross.