

## **Bjarni Tryggvason**

### **Former Astronaut, Canadian Space Agency Visiting Professor, University of Western Ontario**

Bjarni Tryggvason obtained a B.Ap.Sc. Degree in Engineering Physics from the University of British Columbia, and did post graduate work in applied mathematics at the University of Western Ontario. He has three honorary degrees: a Dr. of Sci. from the University of Western Ontario (1998), a PhD from the University of Iceland (2000) and a Dr. of Eng. from the University of Victoria (2005). He flew as a Payload Specialist on the US space shuttle in August 1997, spending 12 days in space working on the Microgravity Vibration Isolation Mount (MIM) and several experiments in fluid science. He was the principal investigator for the MIM-1 that flew on the Russian Mir space station (1996-1998), for the MIM-2 on his flight on the space shuttle and initiated the development of the Microgravity Vibration Isolation Subsystem (MVIS) incorporated into the European Space Agency (ESA) Fluid Science Laboratory (FSL), currently on board the International Space Station (ISS) in the ESA Columbus laboratory module. He completed mission specialist training at the Johnson Space Center in Houston for both the space shuttle and the ISS from 1998 to 2000. He was awarded the NASA space flight medal (1997), and the Order of the Falcon from Iceland.

He retired from the Canadian Space Agency in 2008 and is currently a Visiting Professor at the University of Western Ontario in the Department of Mechanical and Materials Engineering with research interest in: vibration isolation technology for the ISS; effect of spacecraft vibrations of behavior of fluids in the free-fall environment; and on spin characteristics of airplanes. He has lectured at several universities in dynamics, aerodynamics and applied mathematics and currently conducts a senior course in Flight Dynamics and another in Space System Design. He has authored or co-authored more than 40 research papers, and holds several patents.

He is the founder and President of QDAC Inc, a company specializing in high resolution electronic systems.

He is an Airline Transport rated pilot with 5000 hours of flight time, has flown numerous types of aircraft including the Tutor jet with the RCAF and the NASA T-38. He is the Chief Operations Officer with the Canadian Harvard Aircraft Association (CHAA) which operates out of Tillsonburg, Ontario, and flies with CHAA as a formation display and aerobatic pilot.

Recently he conducted wind tunnel testing and analytical modeling of the replica of the Silver Dart, the first airplane to achieve power flight in Canada. On Feb 6 2009 he piloted the replica on six test flights at the Hamilton Airport in Ontario, Canada, and did fly the 100<sup>th</sup> Anniversary Flight on Feb 23, 2009 in Baddeck

Nova Scotia. The original was built by the Aerial Experiment Association in 1908 and first flew in Baddeck on Feb 23, 1909 by J.A.D. McCurdy. The 2009 Silver Dart replica was built by volunteers who formed the AEA 2005 Inc. ([www.silverdartreplica.com](http://www.silverdartreplica.com))

