AEROSPACE U

Sam Grainger

Education

- Bachelor of Computer Science (BCompSci) (1998) with Software Systems specialization. Concordia University, Montréal, Québec
- Project Management Professional (PMP).
- Transport Canada Design Approval Representative (DAR #337)
- Associate Fellow of the Canadian Space and Aeronautics Association
- Licensed private pilot

Experience

- Vice President of Operations for Marinvent Corporation, Saint Bruno, Québec. (2011 onwards)
- Certification (DO-178B) consulting for L-3 MAS (Mirabel) for weather radar supplemental type certificate (2015)
- Certification (DO-178B) consulting for General Dynamics, Canada for Candian Government procurement programs (Maritime Helicopter Program, Peru Coastguard Kaman Seasprite program) (2014, ongoing)
- DO-178B Certification of satellite communications data link unit for TrueNorth Avionics, Ottawa, Ontario.(2014)
- Consulting for NASA TASAR project (2014, 2015)
- Lecturer and trainer for certified software systems to MGA-855 masters level and ELE-641 course at Ecole Technologie Superieur (ÉTS) in Montreal, GosNIIAS (Russian State Institute of Aviation Systems, and State Scientific Center of the Russian Federation), CAE, and Transport Canada.
- Certification review of Kaman Seasprite helicopter AFCS (Automatic Flight Control System) for the Royal New Zealand Air Force (RNZAF)
- Certification review of C-130 MFDU/FMS avionics software certification artifacts for Royal New Zealand Air Force (RNZAF)
- Project manager for Bombardier Flight Test Center (BFTC) Test Definition Sheet and Test Card Generator web applications for use by BFTC to run flight test program for C-Series and future aircraft certification.
- Project manager for Beel Technologies SSRM Radar Testing unit upgrade to an embedded single board computer.
- Certification review of Honeywell certification artificats for software used in C-130 MFDU/FMS avionics software for Royal New Zealand Air Force (RNZAF) (Spring 2010).

- Certification review of development approach for software used in C-130 MFDU/FMS avionics software for RNZAF
- Resource for software architecture design & review for Marinvent's HF & Design Simulator, Avanti flying Workstation.
- Security plan for Marinvent Corporation, for Controlled Goods Directorate of Canada, and became Marinvent's Security Officer.
- RTCA DO-178B Level C certification of the MC3 vector graphics library (MC3 is the basis of all certified electronic approach charts produced by Jeppesen Sanderson Inc., the world's leading supplier of aeronautical GIS data) in support of the following programs: Honeywell EPIC integration into Cessna aircraft, 2005/2006, Honeywell EPIC product integration on Dassault Falcon – 2000-2004, Rockwell Collins ProLine21 product, Universal Avionics UCD.
- Flight Test Data Engineer: Synthetic Vision System for the NASA's Aviation Safety Program (AVSP) with NASA, Technical University of Darmstadt, and Jeppesen Sanderson
- Designed and implemented software to process ARINC 429 and serial data busses for data acquisition and display systems used in the NASA Synthetic Vision System flight trials
- Flight Test Data Engineer: Participated in flight tests for CMA 900 and 3000 Flight Management Systems (FMS) for CMC Electronics
- Jeppesen's JeppView FliteDeck (JVFD) Software, MC3, Certification Support: Gulfstream CT-1000 Electronic Flight Bag (EFB) Supplemental Type Certificate (STC)
- Developed client-server architecture and software suite for the data acquisition system installed in the company's advanced research aircraft. Co-authored "The Unorthodox Application of Commercial-off-the-shelf (COTS) Technologies to Systems Flight Testing," which describes the unique aspects of this program. The paper was presented at the 2000 CASI annual conference.
- Coordinated the implementation of the MC3 technology into the NASA Advanced General Aviation Transport Experiments (AGATE) program. Also responsible for the coordination of all technical aspects of MC3 implementation into the next-generation aircraft cockpits being designed by Rockwell-Collins, Honeywell, Universal Avionics Systems Corporation, and UPS/AT, among others.
- Participated as Airborne Data Engineer in numerous test and development flights. Several of these programs resulted in the issuance of Supplemental Type Certificates by Transport Canada and the U.S. Federal Aviation Administration (FAA).

Awards and recognitions

- 2014 NASA NASA Small Business Subcontractor of the Year (for TASAR) in JV with Advanced Aerospace Solutions (AdvAero) in recognition of its outstanding contribution to NASA in 2014.
- 2013 AIAC James C Floyd Award, awarded to Marinvent for its outstanding contribution to the Canadian aerospace industry.
- 2011 New Zealand Ministry of Defence Award of Excellence to Industry (Category B) for work completed on the Royal New Zealand Air Force C-130 LEP and P-3K capital programs
- 2006 Canadian Business Aviation Association (CBAA) Industry Support Safety Award "…for the safety gains achieved through human factors enhancement, systems engineering, and flight test services" and CBAA Award of Merit "…in recognition of an outstanding contribution to aviation."
- 2005 Aviation Week and Space Technology Laureate for "…helping the transition from paper in the cockpit to a digital flight deck." http://www.aviationweek.com/conferences/lau_e1.htm
- 2004 Canadian American Business Achievement Award for leading"…a joint enterprise demonstrating: strong business growth, remarkable innovation, noteworthy contributions to the local communities, and the capacity to provide the partners with a global advantage."
- 2004 DEKA Innovation Award from the Montréal Hellenic Business Community for inventing the world-standard for certified electronic aeronautical charts.
- The Unorthodox Application of Commercial-off-the-shelf (COTS) Technologies to Systems Flight Testing, John Maris, Sam Grainger. Presented at the 47th Annual Conference of the Canadian Aeronautics and Space Institute, 2000.