

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Utilization & Exploitation of Human Spaceflight Systems (3)

Author: Dr. Nicole Buckley
Canadian Space Agency (RETD), Canada, nicole.buckley@asc-csa.gc.ca

CANADIAN ACTIVITIES ON THE INTERNATIONAL SPACE STATION IN 2013

Abstract

Canada has already completed 26 Canadian investigations during the construction phase of the International Space Station (ISS). With construction complete, last year was very special for Canada, for many reasons including the first Canadian ISS Commander, Chris Hadfield who filled the role between March and June 2013. Records of ISS utilization were broken and five major Canadian experiments were performed. Canadian scientific activities covered a wide range of disciplines including physical sciences (the colloid experiment BCAT-C1), radiation dosimetry (the use of neutron bubble detectors in the Radi-N2 project), life sciences (cardiovascular experiments such as BP Reg and Vascular), technology demonstration (flight of the bioanalysis instrument Microflow1) and outreach (Tomatosphere). The Canadian-built robotic arm system (Canadarm2, Dextre and its base (SSRMS) was used to capture the SpaceX, Orbital and HTV vehicles, demonstrating it is a critical link in the ISS resupply system, in addition to its continuing role in ISS inspection and maintenance. Chris Hadfield's mission was also the focus of many outreach and educational activities, including videos on scientific payloads and on the introduction of the new Canadian *5billshowcasingCanadianspaceroobotics.Finally,ChrisHadfieldstarredalongsidetheISS,inthefirstmusicvideoshotin*