

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)
Overview Session (Present and Near-Term Human Space Flight Programmes) (1)

Author: Mr. Bernhard Hufenbach
European Space Agency (ESA), The Netherlands, Bernhard.Hufenbach@esa.int

Mrs. Kathy Laurini
National Aeronautics and Space Administration (NASA), United States, kathy.laurini-1@nasa.gov
Mr. Naoki Sato
Japan Aerospace Exploration Agency (JAXA), Japan, sato.naoki1@jaxa.jp
Dr. Jean-Claude Piedboeuf
Canadian Space Agency, Canada, Jean-Claude.Piedboeuf@asc-csa.gc.ca
Dr. Christian Lange
Canadian Space Agency, Canada, Christian.Lange@asc-csa.gc.ca
Mr. Roland Martinez
NASA, United States, roland.m.martinez@nasa.gov
Dr. Michael Wargo
National Aeronautics and Space Administration (NASA), United States, michael.wargo@nasa.gov
Dr. Juergen Hill
Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, juergen.hill@dlr.de
Mr. François Spiero
Centre National d'Etudes Spatiales (CNES), France, francois.spiero@cnes.fr

THE 2ND ITERATION OF THE ISECG GLOBAL EXPLORATION ROADMAP

Abstract

The International Space Exploration Coordination Group (ISECG) was established in response to “The Global Exploration Strategy: The Framework for Coordination” developed by fourteen space agencies and released in May 2007. This GES Framework Document recognizes that preparing for human space exploration is a stepwise process, starting with basic knowledge and culminating in a sustained human presence in space.

ISECG has published in September 2011 the 1st iteration of the Global Exploration Roadmap (GER) (see IAC-11.B3.1.8). ISECG has also taken on a commitment to maintain and update this roadmap at regular intervals for reflecting evolving policy and plans for space exploration. Consequently, mid 2013 the second iteration of GER has been published. It reports on the status of work by agencies to develop a space exploration roadmap and describes major progress achieved in preparing for future human exploration missions beyond LEO. In particular, the GER will reflect the following activities

- Further defining near-term human mission scenarios beyond LEO and understanding how these missions prepare for future human missions to Moon, deep space and ultimately Mars.
- Refining the important role ISS plays in preparing future exploration missions by acting as test-bed for critical technologies and new operations techniques as well as by providing a unique platform for advancing research on human health and performance risks associated with future human missions.
- Assessing synergies between robotic missions to exploration destinations and future human missions: Significant work has been devoted to defining and prioritising strategic knowledge gaps which, if

closed through robotic missions, reduce risks and enhance the return of future human mission scenarios.

- Reviewing plans for technology development and identifying opportunities for cooperation and /or areas which are possibly under-funded today in view of envisaged near-term mission scenario.

ISECG participating agencies have also presented and discussed the GER with representatives of the global stakeholder community at numerous national and international events. The outcome of these discussions have been thoroughly reviewed by agencies and within ISECG and various stakeholder recommendations have been taken into account when drafting this 2nd GER iteration.

The GER is non-binding, but expected to serve as important input to individual agency decision making, enabling agencies to assess their near-term investments in view of their future role in and contribution to a long term global exploration endeavor. For more information on the ISECG please consult the ISECG website at www.globalspaceexploration.org or contact the ISECG Secretariat at: isecg@esa.int.