

IAA SG 3.19 Study Group Status Report

1.Responsible Commission: 3 and also 1

2. Study Number and Title:

SG3.19: Feasibility Study of Astronaut Standardized Career Dose Limits in LEO and the outlook for BLEO; the Biological Responses of Humans to Energetic Particle Radiation under Microgravity Conditions

3. Short Study Description

The preliminary results of this study, which take into account the health hazards and difficulties accruing to long duration human journeys in deep space (to the Moon, Mars, the Asteroids) beyond the shielding provided by the geomagnetic field, provide the basis for making recommendations regarding the mitigation of these problems, The recommendations in turn enable progress to be made toward implementing deep space exploration within a framework of multidisciplinary international cooperation.

4.Progress in past six months

(4a) International Cooperation

Our study group currently is composed of members from 12 countries:

America, Canada, China, Czech Republic, Germany, India, Ireland, Japan, Malaysia, Poland, Russia, and Sweden

The Czech and Swedish members were put forward for inclusion by their respective space agencies after the conference in Washington. An astronaut and a member of high tech. industry (innovative analysis), both from America, are in addition (post Washington) in process of being included in our group which is now essentially complete.

(4b) Presentations/

- The Eighth IAA Symposium on “The Future of Space Exploration: Towards the Stars”, 3-5 July, 2013 at Torino, Italy.
- The United Nations/China Workshop on “Human Space Technology” 16-20 September, 2013 at Beijing, China.

- At the IAA Plenary Session on Academy Day at Beijing, China, 22 September, 2013.
- At the IAA Space Exploration Conference on “Planetary Robotic and Human Spaceflight Exploration, 9 January, 2014, Washington, USA.

(4c) Refereed Publication

A paper on the results presented at the IAA Conference in Torino was invited to be submitted to Acta Astronautica and this requested paper is currently under review.

5. Website Study Information up to date? (Study Group Membership, Study Plan and Schedule):

We do not use the Website at all as information is passed to members by e-mail/telecom.

6. Issues requiring resolution? (recommend approach):

Our team is getting so large that we may opt to form sub-groups to address particular issues. This will be discussed at a telecom planned for April, 2014.

7. Product Deliveries

Our deliveries were always on time

Name of Person providing Study Group Status Report (Group Chair)

The study group chair (Acad. Susan McKenna-Lawlor):



Status Report Date

10 March 2014

Study Team Member Changes

Discontinue:

Our esteemed colleague Prof. Dr. Vladislav Petrov of the Russian Academy of Sciences died toward the end of 2013. The team's presentation at the Space Exploration Conference in Washington, 2014 was dedicated to his memory.

His name should now be removed from the active list.

Add:

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Note that the header to the above fax should clearly identify RON TURNER as the intended recipient.

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The names of 3 further persons who have accepted nomination cannot presently be submitted as their fax numbers are not available. If this information is found prior to the Spring Meeting these additional names will be forwarded before 17 March, 2014.

Susan McKenna-Lawlor