

IAA COMMISSION II

Life Sciences
Coordination Meeting

October 1, 2006 09:00 – 13:30

Location: La Nau University
C. Universitat, 2
46003 Valencia

Summary minutes (draft)

1. When **welcoming** the participants **G. Horneck** briefly reported on the activities that happened since the last meeting in Paris and outlined the objectives for the present meeting. **Ron White** asks for the floor to report on the board of trustees under topic 3. With that amendment the draft agenda (annex I) for the meeting was adopted. G. Hornek asked participants to introduce themselves to the group. A list of participants of the meeting is enclosed (Annex II).
2. Copies of the **draft minutes** from last Commission II meeting in Paris have been handed to participants. The minutes have been approved with small corrections. The final version of these minutes has been sent to all members of Commission II and is also available on the IAA website (<http://www.ianet.org/commissions/>)

3. **Reports by the Chair: Scientific Activities, Board of Trustees, Membership of Commission II, general news from IAA**

G. Horneck listed the actual members of Commission II. All core members were present or excused. A new determination of duties and membership will take place every 2 years. The last scientific advisory committee has decided for more transparency in the future. In the last Board of Trustees a long discussion took place on study groups and publications. Discussion focussed furthermore on the encouragement to recruit new IAA members by putting special emphasis on gender equity and a balanced geographical distribution.

Ron White reported in addition from the Board of trustees regarding the membership: It is important for the section to nominate new full members. Corresponding members should be proposed for full members. The main topic for the envisaged meeting of the board of trustees on Tuesday will be the relationship with IAF. A group on synergy has been proposed by the presidents of IAA and IAF and delivered in August an intermediate report with 12 recommendations. IAA members have been quite unhappy with the preliminary report. IAA could be excluded from some areas and the independence of IAA meetings could be put in question. Urgent clarification seems to be necessary.

Prof. Nair confirmed the above hot topic for the boards of trustees meeting. He encouraged commission II to continue its successful work with the study groups.

Regarding the resources for publication he mentioned the possibility of support by local governments, stronger interaction with universities and laboratories.

G. Horneck explained that Commission II is representing a special case since it is organizing regularly a Human in Space symposium and delivers furthermore always a complete scientific programme for the IAC. She expressed her hope that Commission II will be continuing in this way. During the further discussion R. White has been asked to inform on an executive summary on the ToR and recommendations. It was agreed upon that Prof. Nair tries to get information on the ToR and recommendations during the ongoing meeting!

R. Gerzer reported on the new developments with Acta Astronautica on the function and responsibilities of the corresponding editors. According to the existing agreement is Mr. Marec in charge for regular papers for duration of 3 month. If the review process has been not finalised after that time moves the responsibility to the corresponding editor (expected reduction of time for publication from nearly two years to few months). Mr. Gerzer has been nominated in charge of transactions note - a kind of rapid paper. Every full member has the right to recommend a transaction note for publication.

The proceeding from Humans in space from Graz have been send to **Mr. Gerzer** and are expected to be print in January 2007. There will be a new section for review articles. Seven colleagues have been asked to suggest titles for topics. Articles should be written in a way that other colleagues and politicians can easily understand the message. In the following discussion the low impact factor of Acta Astronautica and questions on the editorial policy have been addressed.

4. Study Group proposals/activities

SG 2.1. Mathematical Modelling & Physiological Simulation: **R. White** explained that the report will be delayed by 6 months. The submission of the report is envisaged for the next meeting of this commission (March 2007). G. Horneck introduced the instructions and guide for the final version of the study reports as available from the IAA webs site.

SG 2.2: Artificial Gravity as a Tool in Biology & Medicine **B. Palowski** delivered his report (presentation annex III) on artificial gravity. The first meeting took place in Vancouver (6 participants), a further one in Graz (20 participants). Four authors have been written the final draft report, which has been send to all participants. In late spring the final review process has been started.

In the discussion thanked the chair for the open discussion which focussed on the co-authorship. **R. White** underlined that the report represents the results of the entire study group. The type of contribution can be very different (reviewers, not attending but important). An update of the list of members of the group is urgently needed before the meeting of the scientific committee. **Commission II recommended the report to peer review.**

SG 2.3: „Biosystems for future extraterrestrial habitats and in terrestrial applications“ **R. Gerzer** reported that the study group is with drawn and no continuation foreseen.

SG 2.4: Psychology and Culture in Long Duration Space Missions N. Kanas reported on the problem to organize a study group of 20 and more participants. The work of 4 subcommittees has been collected, merged and an integrated version prepared by N. Kanas. The integrated version has been send back to all participants (presentation annex IV). Remaining open questions are how to publish the report, the appropriate procedure and the publication in Acta Astronautica (present format).

The subsequent discussion focussed on the radiation effects. Mr Reitz might add some paragraph. The psychology section needs to include the family support on the ground. Furthermore organisational aspects need to be considered. Cross-reference is recommended to study group 7. The peer review composition should consider the necessary cross-links. **Commission II: recommended the report to peer review**

Study group chair will be responsible for choosing the best vehicle for publication.

SG 2.5. „Astrobiological Studies of Solar Systems

Report has been delayed due to the non availability of **J. Rummel**.

SG 2.6 „Medical and psychological issues for passengers of commercial spaceflight M Antunano delivered his study report (annex V). Objectives are to identify the minimum medical requirement for space flight (commercial ones). Most of his work has been done on internet. The study group will meet on Thursday. The commission II stated the good progress made but recommended a member from ISL to participate in the study (Hobe, Cologne). The draft report will be ready by next October 2007.

SG 2.7 „Integrative Physiology in Long-duration Space Flight: Nutritional Aspects“

M. Heer mentioned that the first meeting of the study group will take place during the IAC in Valencia. The membership has not changed with regard to the application. An outline will be available by the March meeting 2007;

Discussion on new proposals

General: Proposal for the meeting in October 2007: To develop a mechanism to generate proposals from studies out of the commission II.

Two preliminary proposals for new study groups:

- a) Physiological markers for early identification of astronaut risks
- b) Health tele-monitoring devices in high altitude
- c) Commission V: Study on cosmic protection study (3 commissions involved)
- d) N. Buckley: Overview on lessons learned from ISS first 5 years?
- e) radiation health issue

5. Programme preparation activities

5.1 Status for 58th IAC in Hyderabad. The first announcement is now available. A telemedicine event is planed in India, but no involvement of the Commission foreseen.
A.I R.Gerzer to contact Prof. Nair.

5.2 Status for the 16th Human in Space Symposium, Beijing, 22 – 25 May, 2007

Dr. Zhunag: A flyer will be sending out to all life scientific community (list from Graz, IAF, and Chinese Space Agency). List to be cross-checked by commission II.

Representatives of the different space agencies are invited to join the activities. The originally proposed date of 20 -24 May, 2007 has changed (annex VI).

In the discussion **Prof. Hinghofer Salkay** reported on the lessons learned from Graz especially on the collection of proposals, a small group needed to deal with and to shape the programme and the importance to identify people ready to take responsibility.

R. White recommended to address in the first communication persons who have responded and to encourage people to send abstracts and proposals. The following cut off dates apply:

Abstract by end of January 2007

Notification of authors by the end of February 2007

No payment of mission costs will be done for invited speakers, if not by provided by agencies (in the moment no budget on the Chinese side available). A possible measure could be suspension of registration fees for speakers. The commission is looking forward to a successful meeting in Beijing.

5.3 Status for the 59th IAC 2008

Glasgow: High light speakers to be proposed to cover an appealing and widely recognised field! **“Humans health in Exploration”**

Plenary event: on Human versus robotic exploration

There will be a more open structure for the organisation of the programme for Glasgow.

5.4 Programme proposal for the 60th IAC (not dealt with)

6. Next meeting and work between meetings

Next 17th Humans in Space: proposals should reach the Commission by 1 September 2006. Call for proposal to be issued on the IAA website (one page call) and in addition also send out it to interested agencies and organisations (e.g. Russia).

Next meeting in Paris 19 – 21 th 2007

7. Any other business (no topic)

Annex I

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October 1, 2006 09:00 – 13:30

Location: La Nau University
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46003 Valencia

Room will be indicated

Draft Agenda

1. Welcome/ Introduction
2. Review of minutes from last Commission II meeting in Paris
3. Reports by the Chair: Scientific Activities, Board of Trustees, Membership of Commission II, general news from IAA
4. Study Group proposals/activities
General overview
Status/Progress report from Study Groups chairs
Discussion on new proposals
5. Programme preparation activities
General
Status for 58th IAC in Hyderabad
Status for the 16th Human in Space Symposium, Beijing, 22 – 25 May, 2007
Status for the 59th IAC 2008
Programme proposal for the 60th IAC
6. Next meeting and work between meetings
7. Any other business

Annex II

Participants Commission II meeting

Valencia, 1st Octobre 2006, 9:00 – 13:00

Firstname	Surname	Affiliation
MELCHOR	ANTUÑANO	Civil Aerospace FAA Medical Institute
CHRYSOULA	KOURTIDOU-PAPADELI	Civil Aviation Authorities Director of AMC Thessaloniki
INESA	KOZLOVSKAYA	Chair of Department of Physiology Institute of Biomedical Research, Russia
VLADIMIR	KATUNTSEV	Head of Department IBMP, Russia
FENG YUAN	ZHUANG	Lab. of Space Life Sciences, Beijing Univ. of Aeronautics + Astronautics
JENNIFER	BOYD RITSHER	Depart. of Psychiatry Univ. of California, San Francisco
JÜRGEN	DRESCHER	DLR Washington Office
RUPERT	GERZER	DLR Cologne
NICOLE	BUCKLEY	Canadian Space Agency
WILLIAM	PALOSKI	NASA Johnson Space Center
MARTINA	HEER	DLR Cologne
JANCY	MCPHEE	NASA Johnson Space Center
PETER	GRAEF	DLR
BERNHARD	KOCH	DLR Cologne
NICK	KANAS	Dept. of Psychiatry Univ. of California, San Francisco
VINCENT	BOLES	The Aerospace Corp. GM, Advanced

M.Y.S.	PRASAD	Systems & Technology
ANDREA	BOESE	Indian Space Research Organisation
GUENTHER	REITZ	DLR, Aerospace Medicine, Cologne
		DLR, Aerospace Medicine
		Radiation Biology, Cologne
R.J.	WHITE	USRA, Houston
GERDA	HORNECK	DLR
KARLHEINZ	KREUZBERG	ESA, Paris
G. MADHAVAN	NAIR	Chairman, Indian Space Research Org.
CHARLES	FULLER	Univ. of California, Davis
PAUL	SHUCH	Seti League
JI	WU	Center for Space Science and Applied Research
HELMUT	HINGHOFER-SZALKAY	Univ. Graz