



International Advisory Board for the International Microgravity Plasma Facility

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12 June 2002

Minutes of the 9th Meeting of the International Advisory Board 24. May 2002 Durban, South Africa

Present at the meeting were:

Prof. Laifa Boufendi, Prof. John Goree, Prof. Ove Havnes, Prof. Lin I, Prof. Gerrit M.W. Kroesen, Prof. Vladimir Fortov, Prof. Asoka Mendis, Prof. Gregor E. Morfill, Dr. Oleg F. Petrov, Prof. Norioshi Sato, Dr. Hubertus Thomas.

Absent were: Prof. John E. Allen, Prof. Yukio Watanabe.

Also present were the representatives of DLR (Dr. R. Kuhl), Kayser-Threde (Dr. W. Griethe, R. Seurig), ESA (G. Vago, C. Schmidt-Harms), the ICAPS-science team (Dr. J.-C. Worms) and scientist observers from Kiel University (Dr. A. Melzer and Prof. A. Piel).

The meeting lasted 3.5 hours, beginning 15:00 and ending 18:30 on May 24.

Minutes of the meeting:

- After a short welcome by G. Morfill and introduction about the goals of the meeting by J. Goree A. Melzer gave a presentation on the measurements and developments of the Langmuir-probe for the microgravity experiments PKE-Nefedov and IMPF-RF. This presentation was added to the original agenda on request from Kiel University.
 - J.-C. Worms presented the scientific goals of ICAPS. We were informed that the Advisory Board of ICAPS has already voted to recommend a consolidated IMPF/ICAPS facility. Information on the ICAPS program can be taken from: www.icaps.org
 - Comment from V. Fortov: it would be desirable to use Russian experience in the ICAPS project by involving additional Russian institutes, beyond those already listed by the ICAPS Advisory Board.
 - W. Griethe summarized the recent projects performed by Kayser Threde regarding dusty plasma experiment instrumentation.
 - J. Vago: ESA will form an IMPF/ICAPS facility science team which consists of members of both AB's. The result of a recent Phase A study is that combining IMPF and ICAPS would result in an expected cost savings of 40%.
 - R. Seurig: presentation of the technical details concerning a consolidated IMPF/ICAPS facility. These are the results of the Phase A Study, which ESA recently funded.
- Discussion points:
- Combining the two facilities will not result in any reduction of science.

- The only technical impact for IMPF resulting from combining the two facilities is a reduction in the number of gas bottles available at a given time, from 5 to 3.
- Margin inside the lockers up to 60%, meaning that there exists room in the IMPF lockers for future developments concerning power, volume and mass.
- The time schedule for IMPF is not influenced by the consolidation.
- Possible single point failures in certain lockers serving both IMPF and ICAPS were discussed.
- The coordination effort during the development and hardware phase of IMPF and the logistical effort to operate IMPF, while it is on-orbit, will be increased as a result of consolidating IMPF with ICAPS.
- The next meeting will be held on October 8th in Munich, Germany.

The advisory board voted on the following recommendations, and approved them:

1. The AB recommends to the DLR the adoption of the proposal by ESA and KT to consolidate the hardware, accommodation and operations of IMPF and ICAPS.
2. The AB recommends to ESA and DLR that they proceed with
 - a. phase B of a consolidated IMPF and ICAPS facility
 - b. a determination of how to treat the ownership and transfer of intellectual property produced by engineering contractors and science teams.
3. The AB recommends to ESA that ESA should act swiftly in its role in implementing phase B.
4. The AB recommends to the AB of ICAPS that IMPF scientist would be pleased to participate in a joint scientific meeting.

Sincerely,

Hubertus Thomas
Secretary of the International Advisory Board of IMPF