



Interoperability Plenary

**Meeting of IOP-2 at the InterContinental Hotel in Geneva, Switzerland
8-10 December 2008**

COMMUNIQUÉ

Geneva, Switzerland
10 December 2008

1. Background

The first international Inter-Operability Plenary (IOP-1) was held in June 1999 at the European Space Agency (ESA) Headquarters in Paris, France. As a result of that meeting, the Interagency Operations Advisory Group (IOAG) was established in order to achieve cross-support across the international space community and to expand the enabling levels of space communications and navigation interoperability.

In October 2007, a meeting was held in Geneva, Switzerland, to discuss space communications interoperability related specifically to Moon and Mars missions. At that meeting, it was decided that convening a second Inter-Operability Plenary (IOP-2) was appropriate, and that IOP-2 should include all organizations planning space missions with the goal of identifying such course corrections as might be necessary to achieve interoperability among these organizations.

This second IOP was therefore convened in December 2008 in Geneva, Switzerland to allow major organizations currently planning space missions to review the first decade of progress in cross-support and interoperability of space communications and navigation across multiple agencies and to establish future directions as necessary to expand cross-support and interoperability into space.

2. Meeting Summary

The IOP-2 meeting was attended by participants from ASI (Italy), CNES (France), CNSA (China), DLR (Germany), ESA (Europe), ISRO (India), JAXA (Japan), NASA (United States) and RFSA (Russia). Delegates thereto heard reports and recommendations from the Interagency Operations Advisory Group (IOAG), discussed its accomplishments to date, and considered the future course that the IOAG should take. A consensus emerged that expanding the current levels of international coordination and interoperability offers strong potential for enabling new missions, reducing costs and increasing mission safety. Following these deliberations, and as the parent organization of the IOAG, the IOP formulated a set of IOP-2 Resolutions:



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3. Resolutions

Pursuant to the IOAG-12 recommended resolutions to the IOP-2 (R12.10.1, dated 10th September 2008) and the subsequent deliberations of the IOP-2 delegates during the meeting, the IOP-2 unanimously adopted the following resolutions.

IOP-2 RESOLUTIONS

On this Tenth Day of December 2008, the IOP-2 meeting in Geneva, Switzerland, unanimously adopted the following Resolutions:

1. The IOP charges the IOAG to continue as the international focal point for fostering and leading interoperable space communications and navigation matters for cross-support of spaceflight missions, and approves the amended IOAG Terms of Reference dated June 2007. IOAG participating Agencies should strive to comply with the IOAG's strategic guidance.
2. The IOP considers it as strongly beneficial for the IOAG to admit Membership of those Agencies having significant and relevant missions and assets respectively requiring and providing space communications and navigation cross-support. The IOAG is encouraged to invite observers from other Agencies to participate in IOAG meetings as deemed necessary.
3. Furthermore, IOAG organizational processes should be adapted to collect and process in a timely manner all the space communications and navigation requirements of other international space coordination groups (e.g., the International Space Exploration Coordination Group [ISECG], International Lunar Network [ILN], and international Mars exploration, inter alia), and to provide strategic guidance to the relevant standardization organizations (i.e., the Consultative Committee for Space Data Systems [CCSDS] and the Space Frequency Coordination Group [SFCG]).
4. The IOAG's *ground-based* Cross Support Service Catalog should be completed and agreed by all IOAG participants in order to establish a common basis across the Agencies for the consolidation of *ground-based* cross support by 2011. Agencies should agree to implement IOAG recommendations for missions which may benefit from cross-support and/or international cooperation. It is an IOAG goal to have a plurality of the participating Agencies capable of providing *ground-based* cross support of an agreed common IOAG Service catalog by the end of calendar year 2015.



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5. In order to achieve an enhanced end-to-end cross support service catalog that will provide the platform of standardization for extending cross support into space, the IOAG should prioritize the requirements relevant to space communications interoperability and cross-support and should urge the CCSDS to adjust their work accordingly. In this regard, the IOP-2 endorses IOAG Resolution 12.9.1. IOP-2 recognizes the authority of the IOAG to prioritize future work as necessary.
6. The IOAG's Space Internetworking Strategy Group (SISG) should formalize a draft Solar System Internetwork (SSI) Operations Concept and candidate architectural definition in time for IOAG-13 and should prepare a mature architectural proposal for review and endorsement at the third Inter-Operability Plenary meeting (IOP-3). At that time, the IOAG is requested to present an enhanced service catalog for endorsement. The IOP Agencies should ensure representation from their programs and projects to work with SISG to identify potential missions which may benefit from adoption of the SSI-related standards, leading to a gradual build up of in-space and ground-based space internetworking infrastructure.
7. In the course of its deliberations, the IOP-2 was encouraged by the progress made to date, and stressed the importance of safeguarding the achievements made throughout the past years in cross-support and interoperability, in particular, maintaining compatibility with prior recommendations.