



International Academy of Astronautics

SUMMIT DECLARATION

*Wednesday 17 November 2010
Washington D.C., USA*

IAA Introductory Remarks

On November 17, 2010, leaders of 29 space agencies from around the world gathered in Washington, D.C. for the International Academy of Astronautics' (IAA) Heads of Space Agencies Summit. In preparation for the Summit, the IAA received inputs from Academicians, other experts and space agency representatives on the subject of enhancing global collaboration in the following four areas: human spaceflight, planetary robotic exploration, climate change and disaster management. Based upon these inputs the IAA sets forth below its findings and recommendations that were welcomed by the heads of space agencies.

IAA Summit Declaration

Climate Change

In close coordination with other systems (ground, sea and airborne), future space systems should support a better monitoring and mitigation of the climate evolution, but also the adaptation to its impacts. The IAA recommends that the space agencies consider the following actions through an increased international cooperation:

- Reinforce the programmatic coordination of the Earth Science programs worldwide, in the frame of institutions such as the Group on Earth Observations (GEO) and the Committee on Earth Observation Satellites (CEOS), with the goal of guaranteeing the continuous long-term availability for all nations of all space dependent Essential Climate Variables, as defined by the Global Climate Observing System (GCOS); and contribute to the elaboration and implementation of GEO Data Sharing Principles acceptable by all parties
- Support the development of technologies, derived sensors, and scientific modeling, to achieve a mapping of Green House Gases (GHG) sources and sinks/drains for international commitments monitoring
- Foster the delivery of reliable, objective and verifiable remote sensing data from space systems for the inventory and monitoring of forests, in support to the decision taken at Copenhagen COP 15, concerning the implementation of a REDD+ (Reduction of Emissions from Deforestation and Forest Degradation) mechanism
- Define interoperability standards to enable the use of space systems for integrated applications aiming at reducing the carbon footprint of systems or activities on ground, sea and in the atmosphere, including transport, land use, agriculture, and energy management
- Foster space technology efforts and demonstration projects, to enable offsetting of space technologies that have a potential for long term development of green systems and/or alternative energies.

Disaster Management

Having considered the significant role played by space technology in all phases of disaster management and the various initiatives undertaken by the national, regional and international organizations, as well as gaps in the existing observational platforms and early warning/forecasting methods, the IAA recommends the space agencies consider the following:

- Strengthen the existing network of Earth Observation (EO) satellites (optical and radar sensors) through virtual constellations, ensuring their continuity and striving to implement a better coordination of the observation satellites for emergency purposes
- Promote the International Charter on Space and Major Disasters so that many more countries and agencies can participate in it, and encourage EO data to become available at no cost for disaster response
- Improve EO based techniques for disaster response by moving from reactive methods to anticipative methods better meeting both timeliness and precision requirements from disaster management users: improve EO archives globally via strategic datasets
- Facilitate communications' networks through international cooperation in the Data Relay Satellite System (DRSS) for timely availability of data products to stakeholders
- Support GEO Data Sharing Principles to ensure that value-added data products are available from space-based assets at a fair cost to support existing international programs and initiatives on space and relating to disasters
- Encourage collaborative research efforts and knowledge integration for developing early warning systems/models; develop EO based disaster alert methods
- Increase the ability at local level to exploit satellite-based technologies for disaster management, enhance efforts for capacity building and outreach activities through regular workshops/trainings/websites
- Strengthen national/regional/international level networking of stakeholders, including government and non-government agencies engaged in disaster mitigation.

IAA Closing Remarks

A consensus widely recognized is that many global challenges to come can better be solved by countries working together. The world is flattening as many newcomers are joining the club of emerging space countries, the major space countries face budgetary challenges and politicians and decision-makers face competing priorities. The result is a need to enlarge the circle of current partners. However space agencies have to balance new aspirations and eventual constraints of programs, budgets and national interests. With a large number of new players, confidence, trust, transparency and best practice sharing will have to be the key points for reducing impediments while promoting a safe and responsible use of space.

The Academy has responded to the need to enlarge this circle by inviting to the Heads of Space Agencies Summit an unprecedented number of space agencies and preparing independent studies to support the discussion. Successful preliminary results occurred as several space agencies have already asked the Academy to serve as catalyst for the next few years with several follow-on studies and meetings all over the world. Partnerships with other existing bodies working on the same subjects will also be welcomed. In order to serve as catalyst, the IAA Summit Advisory Group will ensure follow-on so the Academy can better serve the space community. After 50 years of existence the International Academy of Astronautics is recognized as an elite body that contributes to the advancement of international cooperation.