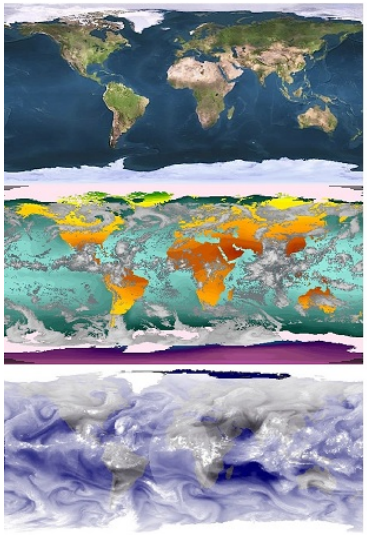
International Academy of Astronautics

Kerala State Council for Science Technology and Environment

International Institute of Space Law



IAA-IISL INTERNATIONAL CONFERENCE ON CLIMATE CHANGE AND DISASTER MANAGEMENT

SPACE BASED SYSTEMS AND THEIR APPLICATIONS: TECHNOLOGICAL AND LEGAL PERSPECTIVES

Call for Papers

February 26-28, 2015

Kovalam, Thiruvananthapuram, India

Conference

The Conference, co-organized by the International Academy of Astronautics (IAA), the International Institute of Space Law (IISL) and the Kerala State Council for Science, Technology and Environment (KSCSTE), proposes to address all aspects of the contribution of space activities to understanding and solving the problems of climate change and disaster management, from technical/technological, policy and legal perspectives.

This conference will be a prelude to the next Heads of Space Agencies Summit being organized by the IAA on Sept 16-17, 2015 at Mexico. The summit proposes to address issues related to sharing of knowledge and data between countries with advanced resources and the emerging countries.

Conference Scope

Climate Change

Space systems have contributed significantly to the understanding of climate change and its causes. Earth observation satellites are essential for the systematic and global data archival of multiple variables of oceans, land and atmosphere: the Earth System. Furthering a deeper technical understanding of climate change is a crucial issue scientifically and socially, in part, because it allows decision makers to place climate change in the context of other large challenges facing their nations and the world. A large part of the Essential Climate Variables (ECVs) relies on measurements from space. Therefore it is of paramount importance to guarantee the continuity of Earth observing satellites and the distribution of data.

Disaster Management

Space-borne remote sensing has been playing an important role in identifying disaster sites, assessing damage and risk, monitoring disaster situations and providing early warning. A large number of initiatives have been taken up by space agencies as well as many other multilateral fora, to establish mechanisms for making available space data in different phases of disasters. The current capabilities are mostly at the level of post-disaster monitoring and damage assessment. Early warning is still a research issue and developing countries, where impact of disaster is very high, have very limited space capability. All these necessitate a strong international cooperation to narrow the gap between developed and developing countries.

Topics

The Conference will address a broad scope of topics, not limited to scientific and technical issues, but also policy, programmatic, legal issues. Papers are requested in the following domains:

Climate Change

Data Requirements: Present and future space Earth Science systems and data distribution networks: Examples USA (NASA, NOAA GEONET, SERVIR), Europe (GMES, Eumetsat), India (INSAT, Megha Tropiques, Oceansat), Asia (Sentinel Asia), private sector (DMCi), etc. *Climate Change Data Protocols and Data Base creation*: Standards for data exchanges and data access policies, data calibration and validation. *Climate analysis and modeling*, *legal and policy dimensions*: policies for data sharing and their adequacy; newer perspectives of data sharing; free access to data; intellectual property rights; ownership and use of the data: local or global (e.g. for climate treaties verification); access by the public. *Role of private sector for climate change data and applications*.

Disaster Management

Specific issues related to disaster management support: use of space systems to analyze vulnerability to climate related disasters; warning systems: improve Earth observation 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 Earth observation archives globally via strategic datasets. Communications' networks through international cooperation in the Data Relay Satellite System (DRSS) for timely availability of data products to stakeholders. Research efforts and knowledge integration for developing early warning systems/models; Earth observation based disaster alert methods. satellite-based technologies for disaster management, efforts for capacity building and outreach activities. National/regional/international level networking of stakeholders engaged in disaster mitigation.

Call for Papers

Abstracts must be written in English on a single A4 page with the title, author's name affiliation and complete address (Instructions and abstract form are available at http://iaaweb.org/content/view/613/805/).

Authors should indicate to which topic of the conference they are proposed. Abstracts shall be sent by e-mail to *conference(at)iaamail.org* before ***January 15, 2015***.

Final papers and presentations shall be in English, which will be the official language of the Conference.