

**INFORMATION NOTE****Nineteenth UN/IAF Workshop on  
“Integrated Space Technologies and Space-based Information for  
Analysis and Prediction of Climate Change”****To be held in Daejeon, Republic of Korea, from 9 to 11 October 2009,  
in conjunction with the 60<sup>th</sup> International Astronautical Congress****Co-sponsored by European Space Agency (ESA)****1. Background**

The United Nations (UN) and the International Astronautical Federation (IAF) have agreed to jointly organise a Workshop on the theme “Integrated Space Technologies and Space-based Information for Analysis and Prediction of Climate Change”, from 9 to 11 October 2009. The Workshop will be held in conjunction with the 60<sup>th</sup> International Astronautical Congress (IAC), which will take place from 12 to 16 October 2009 in Daejeon, Republic of Korea. Workshop participants selected by the UN and IAF will also be invited to attend the IAC.

This Workshop is the nineteenth in the series of meetings jointly organised by the Office for Outer Space Affairs, under the United Nations Programme on Space Applications, and by the International Astronautical Federation. It builds on the recommendations and experience gained from previous workshops. The UN/IAF Workshop has been endorsed by the United Nations General Assembly as part of the 2009 activities of the United Nations Programme on Space Applications.

The UN/IAF Workshop and the 60<sup>th</sup> IAC provide a unique forum for discussions among space experts, policy and decision makers, representatives from academic community and private industry. Participants are encouraged to share their experiences and to examine opportunities for better cooperation. In the past, contacts established among participants have resulted in a number of initiatives and activities strengthening the role of space technology applications for improving the quality of life in developing countries.

The proceedings of the Workshop will be published online by the Office for Outer Space Affairs to increase the awareness of the capabilities and benefits of space technology applications. The report of the Workshop, including findings and recommendations formulated by the participants, will be presented to the United Nations Committee on the Peaceful Uses of Outer Space.

## 2. Objectives

Global climate is a consequence of complex interactions between the solar energy input to Earth, the atmosphere (and atmospheric composition), the oceans, the hydrological cycle, the land surface and vegetation, the cryosphere and geosphere, stratospheric ozone, etc., just to name a few. Space science and technology can greatly complement traditional methods of observations required for understanding the Earth's system.

Space technology is capable of providing the synoptic, wide-area data required to put measurements in the global context needed for the observation of many climatic phenomena. Satellite missions make or help derive key global observations of atmospheric structure and dynamics, sea-surface temperature, surface parameters, precipitation, land-surface characteristics, including biodiversity, and ozone layer via geostationary and polar-orbiting platforms, thus providing an unprecedented capability to monitor, on a global basis, nearly all aspects of the Earth's climate system.

The Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), held from 19 - 30 July 1999 in Vienna, in its resolution entitled "The Space Millennium: Vienna Declaration on Space and Human Development", noted the benefits and applications of space technologies in addressing the challenges to sustainable development, as well as the effectiveness of space instruments for dealing with the challenges posed by matters such as climate change and effects of natural and anthropogenic disasters.

In this context, UNISPACE III placed a great importance to enhance capacity building of the developing countries that could be accomplished through international cooperation in various aspects such as: the development of human and budgetary resources; adequate coordination among the technical and research organizations that are in charge of global climate change monitoring and evaluation; and the development of infrastructures and policy regulations in this area.

The Workshop will address the above issues and will discuss a wide range of space-related technologies, services and information resources available for analysis and prediction of climate change, with the following primary objectives:

- To increase awareness among decision makers and representatives of research and academic community about the use of integrated space technology applications for sustainable development programmes supporting prediction, monitoring and early warning of climate change induced disasters and environmental hazards in developing countries;
- To examine low-cost space-related technologies and information resources available for addressing social and economic issues caused by climate change and global warming;
- To strengthen capacity building in the area of space technology applications for climate change monitoring and hazards management; and
- To strengthen international and regional cooperation in the subjects.

### **3. Programme**

The programme of the Workshop will focus on integrated space technology applications for monitoring, analysis and prediction of climate change impact on sustainable development, with the aim to enable and support participants to develop and implement projects in this area, and to provide reliable data and information for policy- and decision-making related to the subject.

The programme will include presentations on successful applications of space technology and data that provide cost-effective solutions or essential information for planning and implementing programmes or projects related to observation and monitoring of climate change. The Workshop will also feature presentations on the needs of end users engaged in monitoring the impacts of climate change, changing weather patterns, monitoring and early warning of climate related disasters and environmental hazards such as flood, drought, and desertification that could influence sustainable development programmes in developing countries.

The Workshop will be composed of a series of technical presentations with sufficient time set aside for discussions. Technical sessions will be followed by open discussions, which will focus on specific topics of interest and will provide additional opportunities for participants to voice their opinions.

The programme of the Workshop may include, but is not limited to, the following topics:

- Space-related technologies, services and information resources which are available for observation/monitoring, analysis, modeling and prediction of climate change.
- International initiatives, programmes and cooperation.
- Use of small satellites systems for climate change observations.
- Capacity building in developing countries, including discussions on human, financial and technical resources required for successful use of space technologies and services for climate change monitoring.

Participants of the Workshop are encouraged to make presentations on the topics suggested above, as well as to participate actively in all discussions of the meeting.

Co-organizers of the event also plan to continue a practice of holding a concluding round table discussion with participation of heads/top managers of space agencies and other relevant national/regional/international institutions and organizations from both space faring and non-space faring countries in order to establish a direct dialogue with the Workshop participants on how space technologies and policies can contribute to climate change monitoring and analysis programmes, especially those in developing countries. The round table will also discuss issues and problems in participants' countries as well as will open an exchange of pragmatic ideas between decision-makers and leaders from the above-mentioned organizations and participants of the Workshop.

The latest version of the programme will be made available on the web site of the UN Office for Outer Space Affairs (<http://www.unoosa.org>).

#### **4. Date and location of Workshop**

The Workshop will be held from 9 to 11 October 2009 as part of the 60<sup>th</sup> International Astronautical Congress. Participants who are selected and funded by the co-sponsors will be able also to attend the IAC, which will take place from 12 September to 16 October 2009 in Daejeon, Republic of Korea.

All selected participants will receive an information package with details on boarding, lodging and other local arrangements.

#### **5. Language of the Workshop and presentation by participants**

Applicants must have a good ability of English, which will be the **only** working language of the Workshop.

Selected participants who are funded by the cosponsors of the Workshop will be required to prepare a presentation of approximately 10 to 20 minutes on topics relevant to the Workshop objectives and the programme. Presentations on actual on-going projects will be of particular interest to organizers of the Workshop.

#### **6. Participation requirements**

Applicants must have a university degree and well-established professional working experience in a field related to the theme of the Workshop. Applicants should be working in relevant government organizations, international or national space agencies, non-governmental organizations, research or academic institutions. It is preferred that the applicants are currently involved in programmes, projects or enterprises involved in the application of space science and technology to management of hazardous events, or potentially could be benefited from using space technology in their future projects.

Special consideration will be given to the applicants:

- who are policy- and decision- makers;
- who have papers accepted by the IAC Program Committee;
- who have experience in leading or performing project(s) in the topic area, or who have sound ideas and good potential of realizing the ideas to real projects.

The co-sponsors of the Workshop will jointly select participants on a competitive basis. Selected participants will be notified by 15 May 2009.

#### **7. Financial arrangements**

Within the limited financial resources available to the co-sponsors, a number of selected participants from developing countries will be offered financial support to attend the Workshop and IAC. Funded participants will be provided with round trip air tickets between the international airport of their home countries and the international airport at Daejeon, Republic of Korea. The funded participants will also be provided with daily subsistence allowance to cover board and lodging for the duration of the Workshop and IAC. Any en-route expenses or any changes made to the tickets will be at the participant's own expense.

Due to limited availability of financial support, not all participants can be funded. In this respect, applicants and their nominating organizations are strongly encouraged to find additional sources of sponsorship to allow them to attend the Workshop.

Funded participants will receive detailed information upon notification of their selection.

### **8. Deadline for Submission of Applications**

A copy of the completed application form, properly endorsed by applicant's government/ institution, should be directly submitted to:

Office for Outer Space Affairs  
United Nations Office at Vienna  
Vienna International Centre  
P.O. BOX 500  
A-1400 Vienna, AUSTRIA  
Fax: (+43-1) 26060-5830  
Phone: (+43-1) 26060- 4948  
E-mail: [unpsa@unvienna.org](mailto:unpsa@unvienna.org)

to reach the Office **no later than 15 April 2009**. The original of the completed application form should be submitted through the Office of the Resident Representative of the United Nations Development Programme in the applicant's country.

Applications received later than the deadline will be considered, but not eligible for financial support.

### **9. Life and Health Insurance**

Life/major health insurance for each of the selected participants is necessary and is the responsibility of the participant or his/her institution or government. The co-sponsors will not assume any responsibility for life and major health insurance, nor for any expenses related to medical treatment or accidental events.

### **10. Additional Information**

For up-to-date information on this activity please refer to the Office for Outer Space Affairs website at <http://www.unoosa.org>.