

## From Our Members



### The United Nations International Workshop on the Use of Space Technology for Disaster Management

*A Brief Report and Some Useful Suggestions*

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From October 18th to 22nd an International Workshop was held in Munich (Germany) concerning the usage of space technology for disaster management. Jointly organized by UNOOSA and DLR has represented the final meeting of previously regional ones held all over the world.

The United Nations Office for Outer Space Affairs (UNOOSA) is the United Nations office responsible for promoting international cooperation in the peaceful uses of outer space. The Office serves as the secretariat for the General Assembly's only committee dealing exclusively with international cooperation in the peaceful uses of outer space: the Committee on the Peaceful Uses of Outer Space (UNCOPUOS). The Committee has two subcommittees: the Scientific and Technical Subcommittee and the Legal Subcommittee.

The United Nations Programme on Space Applications (PSA) is implemented by UNOOSA and works to improve the use of space science and technology for the economic and social development of all nations, in particular developing countries. Under the Programme, the Office conducts training courses, workshops, seminars and other activities on applications and capacity building in subjects such as remote sensing, communications, satellite meteorology, search and rescue, basic space science and satellite navigation.

As Germany's space agency DLR manages the country's space activities on behalf of and under the instructions of the federal entities responsible for those activities. On the basis of the policy objectives of the German government, and in collaboration and coordination with its German partners, DLR: plans the German space activities, carries out the German space-flight programs and activities, represents the interests of the German space-community in the international sphere.

DLR's foremost goals are: strengthening the German aerospace industry and its role as an international partner and competitor; improving the quality of research and development and the utilization of their fruits, promoting the translation of technological developments into industrial applications and operational products, making space flight less expensive.

The workshop, hosted by the European Patent Office

(EPO) located in the centre of Munich, was held in an excellent auditorium fully equipped with media devices; more than 150 invited participants from more than 50 different countries attended the meeting.

The workshop was divided in plenary sessions and two concurrent technical ones; moreover, three different meetings were held to establish some recommendations concerning Helping developing countries use space technology for disaster management, coordinating the use of space technology for disaster management and bringing space technology into Kobe.



Figure 1 – Welcome address from David Stevens of UNOOSA.

During the different sessions raised the fact that space technologies can play important roles in the reduction of disasters. The use of such technologies can be particularly useful in the risk assessment, mitigation and preparedness phases of disaster management. Space technologies are also vital to the early warning and management of the effects of disasters. In order for developing countries to be able to incorporate the routine use of space technology-based solutions there is a need to increase awareness, build national capacity and also develop solutions that are customised and appropriate to the needs of the developing world.

Particular interest have raised some communications in the plenary sessions; held by representatives from Unesco, UNHRC, ESA, DLR, JRC, NOAA, NASA, UNOPS.

During the workshop, the participants recognised the need for the space technology community to reach out and understand the specific needs of the disaster management user community and that solutions based on space technology should be developed based on the end user requirements. At the same time participants agreed that the disaster management user community in general has no or limited understanding of the potential of space technology for disaster management activities. Interested national institutions should work together in developing and implementing joint projects with international, regional and other national institutions, which would contribute to sharing existing expertise and developing approaches adequate for the country and the region.



Figure 2 – The assembly hall.

Regarding data access and data availability everybody recognised that there are limited or non-existent mechanisms in place in the region to allow data to be rapidly made available during disaster response. And when data is available it is not always in a "user friendly" form. There is a need to define a standard format for each case and also a standard format for the catalogue image data. Awareness of and adherence to standards in data formats and meta-data requirements has to be raised and international standards should be used whenever possible. This especially includes information on the quality and accuracy of the data.

The participants agreed that there is the need to set up a portal where the users can acquire information on existing data and existing opportunities. This portal should include links to existing initiatives such as the Global Map Project ([www.iscgm.org](http://www.iscgm.org)), the Global Spatial Data Infrastructure – GSDI ([www.gsdi.org](http://www.gsdi.org)), and UNGI WG (United Nations Geographic Information Working Group [www.ungiwg.org](http://www.ungiwg.org)).

Particular attention has been paid to National and Regional coordination, whereas institutions within a country should be responsible for coming together to define actions to be taken individually by each country. Each

country should take on the responsibility for determining data needs and consolidating the data and making it available to the user community.

The appropriate institutions should be responsible for increasing the ties with the disaster management community reaching out to understand its needs. The provision of training to this user community should be the responsibility of each country. Particular attention should be provided to the local communities, involving local leaderships and grassroots organisations.

Within a region interested international, regional and national institutions should come together as a Regional Task Force to work together to advance the actions that are important to the region as a whole. This Task Force would be composed of Focal Points from each country. Institutions in all countries of the region should nominate one or more focal points to participate in this Task Force.

This Regional Task Force should develop a work-plan which should include consideration for the recommendations put forward at the regional workshops: development of meta-database/catalogue(s), a database of available experts, institutional capabilities and space technology infrastructure and solutions in the region; development of a training curriculum with case studies; definition of the information needed for disaster management and compilation of the list of the available information.



Figure 3 - Group photo.

The Office for Outer Space Affairs would provide support to these Regional Task Forces contributing to maintaining the list of Focal Points, bringing into this Task Force relevant institutions from other countries, and also linking the work of this Task Force with other international initiatives such as the proposed coordination entity, GEOSS and the International Charter Space and Major Disasters. The Office for Outer Space Affairs would also continue and expand the existing Global Network for Space Technology and Disaster Management. In this framework, the role of ISPRS could be of great interest, coordinating technical activities, defining the state-of-the-art of different techniques, and offering the expertise necessary to gain the goals in the field of disaster management.