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Committee on the Peaceful Uses of Outer Space

Study on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management

I. Introduction

1. In its resolution 59/2 of 20 October 2004, on the review of the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), the General Assembly agreed that a study should be conducted on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management and that the study should be prepared by an ad hoc expert group, with experts to be provided by interested Member States and relevant international organizations.
2. The ad hoc expert group was established and held a meeting during the forty-second session of the Scientific and Technical Subcommittee, in 2005. At that meeting, the ad hoc expert group finalized its draft terms of reference and an outline of its workplan for the preparation of the proposed study and presented it to the Subcommittee for review and approval. The Subcommittee approved the draft terms of reference and the outline of the workplan, as amended.
3. Experts from the following Member States, specialized agencies of the United Nations System and non-governmental organizations having permanent observer status with the Committee were nominated as members of the ad hoc expert group and participated in the preparation of the study: Algeria, Argentina, Austria, Belarus, Canada, China, Colombia, Czech Republic, Finland, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Latvia, Morocco, Nigeria, Philippines, Republic of Korea, Romania, Russian Federation, Spain and United States of America; the United Nations Educational, Scientific and Cultural Organization and the World Meteorological Organization; and the Committee on Space Research, the International Astronautical Federation and the International



Society for Photogrammetry and Remote Sensing. The work of the ad hoc expert group was supported by the Office for Outer Space Affairs of the Secretariat.

4. At its forty-eighth session, in 2005, the Committee on the Peaceful Uses of Outer Space reviewed the progress in the work of the ad hoc expert group and requested that the ad hoc expert group finalize its draft study and submit it to the Scientific and Technical Subcommittee at its forty-third session, in 2006, for review by the Subcommittee and recommendation to the Committee.

5. The ad hoc expert group presented to the Subcommittee for review its study on the possibility of creating an international entity to coordinate space-based services for disaster management (A/AC.105/C.1/L.285). The Subcommittee commended the ad hoc expert group for the excellent study that it had prepared, noting that the ad hoc expert group had stressed that the proposed disaster management international space coordination entity (DMISCO) would be a “one-stop shop” to provide support to the disaster management community at large and a platform for fostering alliances, that it would be user-driven and that it would contribute to bridging the gap between the disaster management and space communities.

6. While expressing its appreciation for the role and functions of the proposed entity, the Subcommittee agreed that its creation should not lead to duplication of efforts and that close consultation was required between the ad hoc expert group and other organizations that had ongoing initiatives in the use of space technology for disaster management. Those initiatives included the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also known as the International Charter “Space and Major Disasters”), the Global Earth Observation System of Systems (GEOSS) being implemented by the Group on Earth Observations (GEO), the Global Monitoring of the Environment and Security (GMES) and programmes and projects such as the RESPOND project in support of humanitarian relief, disaster reduction and reconstruction and the United Nations Institute for Training and Research (UNITAR) Operational Satellite Applications Programme (UNOSAT) which provided operational services in response to emergency relief actions by the Office for the Coordination of Humanitarian Affairs of the Secretariat and other United Nations entities, in particular the Secretariat of the International Strategy for Disaster Reduction (ISDR).

7. The Subcommittee agreed on the following steps forward with regard to the work of the ad hoc expert group:

(a) The ad hoc expert group, with the assistance of the Office for Outer Space Affairs, should consult those responsible for implementing the initiatives mentioned in paragraph 6 above, with a view to reaching agreement on a division of tasks and on how the proposed entity could contribute to achieving the objectives of those initiatives while enhancing the use of space technologies in disaster management, particularly in developing countries; the results of that coordination should be presented to the Committee on the Peaceful Uses of Outer Space at its forty-ninth session, in 2006, for its consideration;

(b) The Office for Outer Space Affairs should correspond with all member States, requesting them to officially communicate their possible commitments to be provided to the proposed entity;

(c) All providers of support would then be invited to harmonize their commitments into one viable proposal for the implementation of the entity;

(d) The ad hoc expert group should hold a meeting during the forty-ninth session of the Committee to finalize its report to the Committee, including a proposed implementation plan based on the commitments secured, and to propose a final name for the entity.

8. The results of the consultations carried out by the ad hoc expert group, assisted by the Office for Outer Space Affairs, with representatives of the ongoing initiatives are presented below, including a revised workplan that takes into consideration the results of those consultations, an updated list of required resources, a proposed new name for DMISCO and a proposal for the implementation of the entity, based on the commitments received. The present document should be read together with document A/AC.105/C.1/L.285.

II. Coordination with ongoing initiatives

9. As requested by the Subcommittee, the ad hoc expert group, with the support of the Office for Outer Space Affairs, carried out consultations with representatives of the following initiatives: GEOSS, the International Charter “Space and Major Disasters”, UNOSAT and ISDR, among others. The results of those consultations are reflected in the proposed workplan (see annex I).

Global Earth Observation System of Systems

10. The ad hoc expert group and the Office for Outer Space Affairs held three meetings with the GEO Secretariat in order to discuss ways to ensure that GEOSS and DMISCO work in a coordinated and effective manner. A representative of the GEO Secretariat participated in the meeting of the ad hoc expert group held on 21 February 2006, on the margins of the forty-third session of the Scientific and Technical Subcommittee. Following that meeting, a representative of the Office made a presentation, on behalf of the ad hoc expert group, to the GEO Working Group on Tsunami Activities at its meeting held in Paris on 27 and 28 February 2006. The Director of the GEO Secretariat and representatives of the Office met in Vienna on 4 May 2006 to discuss the proposed workplan and examine how to coordinate the actions of both initiatives in order to ensure that they were mutually supportive. The proposed workplan (see annex I) reflects the recommendations arising from those meetings. A summary of the items discussed during the meeting held on 4 May 2006 is contained in annex II to the present report. In particular, paragraphs 8-10 of annex II set out how the two initiatives could work in a coordinated way.

Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters

11. The Office for Outer Space Affairs participated in the fifteenth meeting of the Executive Secretariat of the International Charter “Space and Major Disasters”, held in Frascati, Italy, on 6 April 2006. On behalf of the ad hoc expert group, the representative of the Office for Outer Space Affairs made a presentation to the

members of the Executive Secretariat on the work of the Office and on the entity proposed to be established as a programme of the Office. The Executive Secretariat indicated that the kind of cooperation currently in place, with the Office for Outer Space Affairs functioning as a Cooperating Body to the Charter, would continue and that the decision to expand the current capabilities of the Office to provide further support was a decision to be taken by the Member States of the United Nations.

UNITAR Operational Satellite Applications Programme

12. The Office for Outer Space Affairs has been a Cooperating Body of the International Charter "Space and Major Disasters" since March 2003, acting as an interface between entities of the United Nations system and the Charter. UNOSAT provides the necessary competence, when needed, to turn satellite image data provided under the Charter into products that end-users can use on site. During the third United Nations-wide meeting on the United Nations and the International Charter "Space and Major Disasters", held in Geneva on 20 March 2006, the United Nations entities present, including the Office for the Coordination of Humanitarian Affairs, the World Food Programme, the United Nations Development Programme and the Office of the United Nations High Commissioner for Refugees, confirmed their satisfaction with the work being carried out jointly by the Office for Outer Space Affairs and UNOSAT. The representative of the Office, on behalf of the ad hoc expert group, met with the representative of UNOSAT in Geneva, on 23 March 2006, to identify possible common activities and synergies that might be included in the workplan of the proposed entity, in order to build upon them further. The results of those discussions are already reflected in the proposed workplan (see annex I). The implementation of the proposed entity will build upon the successful work already being jointly carried out by the Office for Outer Space Affairs and UNOSAT in the area of emergency response so that that work can be expanded to include all areas of risk reduction and some areas of complex emergencies.

International Strategy for Disaster Reduction

13. The ISDR Secretariat is working on the implementation of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (A/CONF.206/6 and Corr.1, chap. I, resolution 1), which was adopted by the World Conference on Disaster Reduction, held at Kobe, Hyogo, Japan, from 18-22 January 2005 and endorsed by the General Assembly in its resolution 60/195 of 22 December 2005. The Hyogo Framework is the international road map for disaster risk reduction for the next 10 years, based on a substantial review of disasters and disaster reduction efforts during the past 10 years. The Hyogo Framework recognized the need to promote the use, application and affordability of recent information, communication and space-based technologies and related services, as well as Earth observations, to support disaster risk reduction, particularly for training and for the sharing and dissemination of information among different categories of users. The proposed DMISCO would contribute to supporting that identified need. The Office for Outer Space Affairs, on behalf of the ad hoc expert group, met with the ISDR Secretariat in Geneva on 23 March 2006 and was informed that the ISDR Secretariat recognized the

relevance and importance of the proposed entity and looked forward to working together with it in implementing the Hyogo Framework.

Other initiatives

14. Through the Office for Outer Space Affairs, the ad hoc expert group also held consultations with the following initiatives to ensure that the proposed workplan took into consideration the objectives, the activities and the work currently being carried out by them: GMES, the Centre for Satellite-based Crisis Information of the German Aerospace Center (DLR), the RESPOND project, the proposed Sentinel Asia project led by the Japan Aerospace Exploration Agency and others and the International Institute for Geo-Information Science and Earth Observation, which has implemented several capacity-building initiatives in the area of disaster management in conjunction with the Institute for Environment and Human Security of the United Nations University.

III. Proposed workplan

15. The Action Team on Disaster Management, established by the Committee on the Peaceful Uses of Outer Space at its forty-fourth session, carried out an initial study aimed at building an understanding of existing constraints to maximizing the use of space-based technologies in the various phases of the disaster management cycle. The study recognized the importance of space-based technologies in the area of disaster management and concluded that a considerable gap existed in all areas of the application of space technology to disaster management, including technical, operational, education and training and organizational areas and that the gap would continue to exist unless a global, integrated and coordinated approach was taken. The study noted that in virtually all countries, there was a lack of understanding in particular among disaster managers and civil protection agencies, of the benefits of the use of space technologies in supporting risk reduction and disaster management activities.

16. Building upon the study of the Action Team, the ad hoc expert group identified the needs of the disaster management community and the relevant initiatives of the space community. Based on that information, the ad hoc expert group carried out a gap analysis, resulting in a list of key functions for DMISCO, as proposed in paragraphs 47-49 of the study of the ad hoc expert group (A/AC.105/C.1/L.285). Based on the consultations with representatives of the initiatives listed in paragraph 9 above, the ad hoc expert group updated the proposed list of activities to be carried out by DMISCO and prepared a proposal for a workplan (see annex I).

17. The workplan proposes a mission statement for DMISCO: “Strive to ensure that all countries have access to and use all types of space-based information to support the full disaster management cycle”. The workplan presents all proposed DMISCO activities, grouped into three main activity areas: a gateway to space information for disaster management support; a bridge to connect the disaster management and space communities; and a facilitator of capacity-building and institutional strengthening.

18. Based on the proposed workplan, the ad hoc expert group reviewed and updated the estimate of resources required (A/AC.105/C.1/L.285, paras. 70, 71, 84 and 85).

IV. Proposed implementation framework of the entity

19. As agreed by the Scientific and Technical Subcommittee at its forty-third session, the Office for Outer Space Affairs requested all member States to officially communicate their possible commitments of support to the proposed entity. Switzerland and the following member States confirmed their commitment or indicated that they were considering making a commitment of support and were invited to a meeting on 7 June 2006 to harmonize their offers of support into a single, viable proposal: Algeria, Argentina, Austria, China, Germany, India, Italy, Morocco, Nigeria, Romania and Turkey. At the meeting of the ad hoc expert group held on 8 and 9 June 2006, the Russian Federation indicated the level of its support to be made available for the implementation of the entity.

20. The offers of support included both firm and possible commitments to provide the necessary housing facilities, make available professional experts and administrative staff, provide support to capacity-building activities and technical backstopping, create links to take advantage of relevant ongoing activities, make satellite data available and make cash contributions.

21. The entity should be implemented as a programme of the Office for Outer Space Affairs under the Director of the Office and should be an open network of providers of support. The activities will be planned and carried out in a coordinated manner, initially building upon the commitments made by Austria, China and Germany, which include facilities, professional experts, administrative staff and cash contributions.

22. The Director of the Office for Outer Space Affairs will be responsible for the overall management and the oversight of DMISCO. DMISCO will have an office in Beijing and an office in Bonn, Germany. The activities described above and in annex I will be carried out within the proposed implementation framework presented in annex III, by the staff that will be assigned to the Beijing office, the Bonn office and the Office for Outer Space Affairs in Vienna.

23. With respect to the offer of support made by Switzerland, due consideration will be given to the possibility of establishing a liaison office in Geneva that will contribute to integrating the work of the entity into the humanitarian response community and disseminating information on that work.

24. In the light of the number of commitments made so that it can carry out its work, the entity should utilize the support of an open network of partners, thus taking advantage of the important experience and capabilities offered by many Member States. That will also ensure that regional and national centres of expertise have a strong role in their respective region.

25. The Office for Outer Space Affairs should develop a detailed workplan for 2007 and the biennium 2008-2009, within the framework proposed in annex III, taking into consideration all commitments received, in consultation with the representatives of countries that have made or will make commitments and with the

representatives of other States that have indicated their interest in contributing to the development of the workplan.

V. Recommendations to the Committee on the Peaceful Uses of Outer Space

26. As requested by the Scientific and Technical Subcommittee, the ad hoc expert group held a meeting on 8 and 9 June 2006 to prepare its final report to the Committee on the Peaceful Uses of Outer Space, including a proposed implementation framework based on the commitments received, and to propose a final name for the entity. The meeting was co-chaired by the representatives of India, Indonesia and the Russian Federation.

27. The ad hoc expert group discussed possible names for the proposed entity and recommended the following name: United Nations Platform for Space-based Information for Disaster Management and Emergency Response (SPIDER).

28. The ad hoc expert group recommended to the Committee that the proposed entity be implemented as a programme of the Office for Outer Space Affairs and that the entity be launched on 1 January 2007. The proposed entity would contribute to ensuring that all States have access to, and use all types of, space-based information to support, the full disaster management cycle by being a gateway to space information for disaster management support, a bridge to connect the disaster management and space communities and a facilitator of capacity-building and institution-strengthening.

29. The entity should carry out its work with the support of an open network of partners, building upon the commitments provided by many member States and thus ensuring that regional and national centres have a strong role in their respective regions.

30. The ad hoc expert group recommended that the Office for Outer Space Affairs develop a detailed workplan for 2007 and the biennium 2008-2009, based on the commitments received, in consultation with the representatives of States that have made or will make commitments and with the representatives of other States that have indicated their interest in contributing to the development of the workplan.

31. The ad hoc expert group recommended the establishment of an advisory board, as presented in paragraphs 73 and 74 of the study of the ad hoc expert group (A/AC.105/C.1/L.285) and recommended that the Office for Outer Space Affairs correspond with Member States, specialized agencies of the United Nations and intergovernmental and non-governmental organizations having permanent observer status with the Committee in order to nominate experts to the advisory board. The advisory board should meet for the first time on the margins of the forty-fourth session of the Scientific and Technical Subcommittee, in 2007, in order to review the proposed workplan for 2007 and the biennium 2008-2009, prepare a list of suggestions of institutions to be invited to take part in the support forum as presented in paragraph 75 of the study of the ad hoc expert group (A/AC.105/C.1/L.285) and make recommendations on future steps of the entity.

32. The ad hoc expert group recommended that the Office for Outer Space Affairs continue to secure further support to establish the entity, in both in-kind and cash

contributions, by resending correspondence to all member States by 30 July 2006, presenting the planned implementation of the entity and the potential benefits, listing possible opportunities for cooperation and requesting member States to communicate or confirm their possible commitments to the entity, in time to be considered in the development of the detailed workplan for 2007 and the biennium 2008-2009.

Annex I

Proposed workplan

Mission statement: strive to ensure that all countries have access to and use all types of space-based information to support the full disaster management cycle

1. A gateway to space information for disaster management support

<i>Proposed activity</i>	<i>Description</i>	<i>Coordination</i>
Systematic compilation of relevant information and ensuring that relevant information is easily accessible to all interested end-users on a "24/7" basis (24 hours a day, 7 days a week)	<p>One of the key activities to be carried out will be ensuring that the entity assembles in a single place, to be available to all those interested, all information on how to access and use space-based technology solutions for risk reduction and disaster management, including all information on ongoing and planned regional and international initiatives, case studies and best practices, information on available archived data for disaster studies and response, relevant outreach activities and capacity-building opportunities and links to all relevant websites. That information will be made available through a web portal and also be disseminated through electronic newsletters and discussion lists.</p> <p>Disasters require immediate action. To ensure availability at all times, a 24/7 telephone hotline will be set up so that interested end-users may receive immediate information.</p>	<p>This activity will bring together in one place information that will help end-users understand what is available and how to access it, including information on data and products to be made available through the Global Earth Observation System of Systems (GEOSS), Sentinel Asia, the United Nations Institute for Training and Research (UNITAR), the Operational Satellite Applications Programme (UNOSAT) and other ongoing initiatives.</p> <p>The overarching GEOSS 10-year vision in the societal benefit area of disasters is to further enhance coordination among operational observing systems with global coverage in order to support effective disaster warnings, responses and recovery, thus contributing to the preparation of information products that contribute to planning for disaster reduction and mitigation. GEOSS will provide a collaborative framework for the exchange and efficient use of data, together with support for continuity of operations for all essential systems. Currently, few of the observational requirements for the main hazards are adequately met on a worldwide basis. GEOSS aims at ensuring that relevant data and products are produced and received in a timely fashion, focusing only on natural and technological disasters.</p> <p>The proposed disaster management international space coordination entity (DMISCO) would contribute to that effort in two ways: firstly, it would contribute to making the available data and information that GEOSS brings together widely known to the disaster management community; and secondly, it would provide feedback to GEOSS on the needs of the disaster management community. For example, GEOSS task for 2006 DI-06-01 is to set up a database of archived imagery for coastal areas prone to tsunamis. DMISCO would contribute to ensuring that relevant institutions working in disaster-prone areas are aware of that database and are able to</p>

<i>Proposed activity</i>	<i>Description</i>	<i>Coordination</i>
		access and use the archived imagery. Further, DMISCO would facilitate access to all information and be readily available on a 24/7 basis to provide immediate attention to individual needs.
Awareness-raising and outreach activities	DMISCO will carry out awareness-raising and outreach activities aimed at increasing the understanding of the importance of incorporating space-based technology solutions in risk reduction and disaster management. Periodic campaigns would focus on specific interest groups such as civil protection organizations, funding agencies, schoolchildren and media. Additional activities include ensuring that speakers are included in relevant conferences and meetings and the promotion of regional workshops.	DMISCO will carry out awareness-raising and outreach activities to identify and coordinate with specific interest groups. DMISCO will also participate, as appropriate and within existing available resources, in relevant meetings and promote regional workshops and symposiums, aiming at making end-user communities aware of and capable of using available space-based technology solutions for the various phases of the disaster management cycle, especially risk reduction, and for dealing with complex emergencies such as those resulting from post-civil-conflict situations and humanitarian emergencies. DMISCO will also raise awareness among the disaster management community of the importance of preparing plans to use satellite communications in disaster prevention and relief operations, including the strengthening of implementation of the Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations. ^a
Regional and country profiles	Support the development and compilation of risk information at the national level according to disaster theme (country profiles) and the development of regional and subregional vulnerability assessments.	DMISCO would maintain a database of country profiles and support the development of regional and subregional vulnerability assessments (national assessments would be developed by individual countries). Country profiles would include information on national space technology capabilities, a disaster management framework and additional relevant competence in academia and the private sector. The country profiles would be developed in coordination with the International Strategy for Disaster Reduction (ISDR).

^a United Nations, *Treaty Series*, vol. 2296, No. 40906.

2. A bridge to connect the disaster management and space communities

<i>Proposed activity</i>	<i>Description</i>	<i>Coordination</i>
Establishment of communities of practice	Making information available and providing a platform where ongoing and planned initiatives can come together are	Through its User Interface Committee, GEOSS is working to engage users in the nine societal benefit areas by establishing communities of practice. That

<i>Proposed activity</i>	<i>Description</i>	<i>Coordination</i>
	<p>two of the cornerstones of a successful strategy. The third cornerstone is bringing together the end-user and the provider of space-based technology solutions. That can be done through the establishment of communities of practice.</p> <p>The term “community of practice” refers to the process of social learning that occurs when people who have a common interest in a subject or problem collaborate over an extended period to share ideas, find solutions and build innovations. Communities of practice build upon the potential of the information technology society, using the Internet as a backbone for creating a virtual community.</p>	<p>will enable the Group on Earth Observations (GEO) to address the needs and concerns of a broad range of user communities in developing and developed countries, across issues and trans-disciplinary needs, contribute to engaging a continuum of users, from producers to the final beneficiaries of the data and information and, lastly, facilitate linkages and partnerships among established communities of practice and new groups or organizations interested in collaborating. DMISCO will work with ISDR and the Office for the Coordination of Humanitarian Affairs of the Secretariat to develop new communities of practice that can link to the User Interface Committee.</p> <p>DMISCO will work in close coordination with the GEO Secretariat to ensure that the communities of practice developed within the framework of DMISCO do not duplicate the efforts of GEO, and vice versa. In particular, DMISCO will focus on the end-users to ensure that they actively participate in, contribute to and benefit from established communities of practice. That will channel the needs of those end-users into the GEO process.</p> <p>In addition, DMISCO will promote the establishment of communities of practice that contribute to disseminating and increasing the use of satellite communications in the disaster management cycle.</p>
Knowledge management and transfer	<p>This activity will contribute to identifying and bringing together knowledge, practical know-how, expertise and best practices, while focusing on capturing and making such knowledge assets available for transfer to all end-users. The experience accumulated by one end-user can be captured and shared with all other interested end-users. Development of a knowledge base will include the refinement of user requirements and a definition of best practices.</p> <p>Knowledge management and knowledge transfer will benefit from the development of the web-based information service and the establishment of communities of practice.</p>	<p>Both GEO and the ad hoc expert group have identified knowledge management and knowledge transfer as a key activity. GEO is currently carrying out a specific task in this area, task DI-06-12 to initiate a knowledge-transfer programme to developing countries and to ensure basic capacity to utilize Earth observations for disaster management. Because there is a very large number of potential end-users that could benefit from such knowledge and a need to coordinate efforts in this area, the Office for Outer Space Affairs has joined those entities heading this GEO task in order to avoid duplication of efforts and maximize the results obtained from the resources made available to GEO and DMISCO.</p> <p>Another example is GEOSS task for 2006 DI-06-09, which will contribute to expanding the use of meteorological geostationary satellites for the management of non-weather related hazards, by promoting the use of such satellites to monitor volcanic activity and fire hazards in developing countries. DMISCO would contribute to channelling those space-based technology solutions to institutions in developing countries.</p>

<i>Proposed activity</i>	<i>Description</i>	<i>Coordination</i>
Platform for fostering alliances	<p>One of the key aspects stressed by the ad hoc expert group is that the initiative has to be identified as a platform for fostering alliances of international initiatives and mechanisms in the area of space technology and disaster management. Emphasis should be placed on coordination and interaction with relevant national authorities, scientific institutions, organizations implementing and/or providing space-based solutions, humanitarian, environmental and civil protection actors and the space community, thus contributing to building synergies and avoiding duplication of activities and efforts. This is vertical coordination.</p> <p>The platform will also work together with, and contribute to, existing and future initiatives such as the International Charter "Space and Major Disasters", the RESPOND project, the proposed Global Monitoring for Environment and Security (GMES) service centres and GEOSS, building upon existing opportunities for the benefit of developing countries. This is horizontal coordination.</p> <p>Such coordination will contribute directly to the implementation of international programmes or initiatives. It will also contribute to enhancing coordination among all United Nations initiatives concerning humanitarian and emergency response, risk reduction and disaster management.</p>	<p>DMISCO will also focus on knowledge management and knowledge transfer in the area of satellite communications and other space-based technologies such as global navigation satellite system applications. In addition DMISCO will ensure that the knowledge transfer is a two-way process, with knowledge of user requirements and best practices flowing back to the providers of space-based technology solutions.</p> <p>The ad hoc expert group identified the need for both horizontal and vertical coordination. GEO recognizes the need to build upon existing opportunities by strengthening the role of initiatives such as the International Charter "Space and Major Disasters" and GMES.</p> <p>New initiatives such as Sentinel Asia and Emergesat are being planned. A platform that contributes to strengthening the dialogue among all ongoing and planned initiatives would maximize positive results. GEOSS has identified several tasks to be carried out in 2006 that will contribute to the strengthening of existing initiatives, such as task DI 06-10, which is to initiate and maintain a dialogue between GEO, the Board of the International Charter on Space and Major Disasters and relevant United Nations agencies to identify mechanisms for strengthening the scope and mandate of the Charter, and task DI-06-11, which is to explore possibilities for the development of an international charter on telecommunication systems and disasters, building upon the experience of the International Charter on "Space and Major Disasters".</p> <p>The Office for Outer Space Affairs has been a Cooperating Body of the International Charter "Space and Major Disasters" since March 2003, and, understanding the importance of making the Charter accessible to all developing countries (since currently, more than 80 per cent of the world's countries cannot access the Charter), it has offered to be part of task DI-06-10, which is led by the GEO Secretariat. The Office has been working closely with other United Nations agencies, namely, UNOSAT, OCHA, the Office of the United Nations High Commissioner for Refugees, the World Food Programme and the United Nations Environment Programme, towards making the Charter accessible for complex emergencies and for all developing countries.</p>

3. A facilitator of capacity-building and institutional strengthening

<i>Proposed activity</i>	<i>Description</i>	<i>Coordination</i>
Implementation of activities defined by national focal points	Contribution to the implementation of risk reduction and emergency response activities and projects identified in conjunction with designated national focal points.	<p>Each country will be invited to identify one or more national focal points to work closely with DMISCO in the definition of national disaster management planning and policies and national activities that incorporate space-based technology solutions in risk reduction and disaster management.</p> <p>DMISCO will contribute to defining those activities and bring together potential partners, including implementing organizations. There are several ongoing initiatives that would contribute to the implementation of such solutions, such as the Disaster Information Analysis Group (DIAG), which is an initiative of the International Institute for Geo-Information Science and Earth Observation (ITC) aimed at supporting organizations in developing countries through assistance in the collection, management, analysis and dissemination of spatial information after major disaster events. In addition, UNOSAT would be able to contribute to the implementation of defined activities, building upon the expertise it has gained in carrying out capacity-building activities in developing countries.</p>
Support to capacity-building	The use of new technologies is possible only if experts are provided with the needed training. DMISCO will contribute to capacity-building, including by helping to define a suggested curriculum, working with the established regional centres for space science and technology education affiliated to the United Nations and with other centres of excellence in the training of end-users.	<p>Capacity-building and the strengthening of institutional arrangements at all levels is key to increasing the ability of organizations and individuals to effectively use space based services for disaster preparedness, response and recovery. The Office for Outer Space Affairs has taken a lead in the area of capacity-building in developing countries through the establishment of regional centres for space science and technology education at existing research and higher education institutions in each region covered by the United Nations regional economic commissions. Similarly, the Regional Centre for Training in Aerospace Surveys in Nigeria and the Regional Centre for Mapping of Resources for Development in Kenya have contributed to building capacity in Africa. In addition, the Office for Outer Space Affairs and the United Nations University have been working with ITC in the promotion of capacity-building in the use of geo-information for disaster management.</p> <p>DMISCO would build upon those initiatives, ensuring that a broad, global effort is carried out to contribute to capacity-building worldwide and coordinating with the capacity-building tasks of GEOSS, ITC, UNOSAT and other organizations.</p>

<i>Proposed activity</i>	<i>Description</i>	<i>Coordination</i>
Contribution to the establishment of national disaster management planning and policies	Contribute, at the request of the relevant national institutions, to the definition of disaster management planning and policies with regard to the use of space-based technologies and contribute to linking risk assessment to economic development strategies for poverty alleviation. This activity will be carried out in close coordination with ISDR, in implementing the Hyogo Framework of Action 2005-2015, and with the country offices of the United Nations Development Programme.	The Hyogo Framework of Action, under the leadership of ISDR, has the following strategic goals: integration of disaster risk reduction into sustainable development policies and planning; development and strengthening of institutions, mechanisms and capacities to build resilience to hazards; and the systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes. Space technology is recognized as one of the technologies that will contribute to the success of the Framework. DMISCO will work in coordination with the ISDR Secretariat and the country offices of the United Nations Development Programme to ensure that space technology is adequately considered in the definition of national disaster management planning and policies and in the implementation of programmes and activities.

Annex II

Minutes of the meeting between Secretariat of the Group on Earth Observations and the Office for Outer Space Affairs of the United Nations Secretariat

Participants: José Achache, Director of the GEO Secretariat; Sergio Camacho, Director of the Office for Outer Space Affairs of the United Nations Secretariat; David Stevens, Office for Outer Space Affairs; and Qais Sultan, Office for Outer Space Affairs

Date: 4 May 2006

Place: United Nations Office at Vienna

Coordination regarding DMISCO and the Secretariat of the Group on Earth Observations

1. The Office for Outer Space Affairs of the United Nations Secretariat provided a brief overview of the work of the Committee on the Peaceful Uses of Outer Space, its membership and of the work carried out by the Scientific and Technical Subcommittee during its session in February 2006.
2. The Secretariat of the Group on Earth Observations (GEO) provided a brief overview of the work of GEO, its membership and of the work carried out by the GEO Executive Committee during its meeting on 11 April 2006.
3. The two secretariats agreed that it was important to clarify the underlying issues and to find a way forward on the use of space technology for disaster prevention, mitigation and response and rehabilitation.
4. The Office for Outer Space Affairs recalled that the ad hoc group of experts of the Scientific and Technical Subcommittee presented their study on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management (A/AC.105/C.1/L.285) to the Subcommittee. The Subcommittee requested that the ad hoc expert group, with the assistance of the Office for Outer Space Affairs, consult with the GEO Secretariat, with a view to reaching agreement on a division of tasks and on how the proposed entity could contribute to achieving the objectives of the Global Earth Observation System of Systems (GEOSS) while enhancing the use of space technologies in disaster management, particularly in developing countries; the results of this coordination would be presented to the Committee on the Peaceful Uses of Outer Space at its forty-ninth session, in 2006, for its consideration.
5. The Office for Outer Space Affairs provided an overview of the planned activities of the proposed entity and discussed the activities that could potentially be carried out together with or within GEOSS. The Office for Outer Space Affairs was already contributing towards GEOSS as a co-leader of task DI-06-12 and as a member of task DI-06-10.
6. The Office for Outer Space Affairs stressed that what was being proposed by the ad hoc expert group would increase resources available to the Office to carry out

a coordinated effort that would aim at ensuring that all countries have access to and use space-based technology solutions for risk reduction and disaster management activities. DMISCO would be implemented as a United Nations programme under the Office for Outer Space Affairs. The work would be developed under the management and leadership of the Director of the Office as a platform to develop alliances.

7. The Office for Outer Space Affairs presented the list of planned activities, informing that the list of proposed activities was the result of a gap analysis carried out by the ad hoc expert group and contained in the report that it submitted to the Scientific and Technical Subcommittee at its forty-third session.

8. The GEO Secretariat and the Office for Outer Space Affairs further discussed how GEOSS and the proposed DMISCO would mutually benefit from the work carried out by each initiative. DMISCO would contribute to making the available data and information that GEOSS brought together widely known to the disaster management community. It would provide feedback to GEOSS on the needs of the disaster management community. DMISCO would also take a lead role in the area of capacity-building, helping to evaluate needs and define requirements for institutions in that area and providing a framework for understanding how to better coordinate in that area.

9. GEOSS would take the lead role in working towards ensuring that data was produced and made available, while DMISCO would ensure that the disaster management community was aware of such data and had the capacity to use the data. GEOSS would take the lead in coordinating the various initiatives that made the data available, while DMISCO would contribute to such coordination with the understanding of the needs of the end-users. DMISCO would also provide a coordination role in the use of space technologies that were not part of the GEOSS mandate, such as space telecommunications for emergency response.

10. The GEO Secretariat provided additional valuable comments on the draft DMISCO plan of work, including pointing to the need to condense the actions into three well-defined missions, rather than the nine missions listed.

11. The Office for Outer Space Affairs would send a letter inviting the GEO Secretariat to attend and make a presentation at the forty-ninth session of the Committee on the Peaceful Uses of Outer Space, in 2006. The Office would also forward the provisional agenda of that session to the GEO Secretariat.

Annex III

Proposed implementation framework

Designation of the lead and responsibility for specific activities and for coordinating the work developed using resources available throughout DMISCO, including the resources to be made available by current and future providers of support.

Beijing

Awareness-raising

Regional and country profiles

Interface with national focal points

Contribution to the establishment of national disaster management planning and policies

Bonn

Compilation of information, including the maintenance of the database

Ensure 24/7 availability

Establishment of communities of practice

Knowledge management and transfer

Information and communication platform for fostering alliances

Vienna

Outreach activities

Support to capacity-building
