United Nations



Distr.: Limited 20 February 2007

Original: English

Committee on the Peaceful Uses of Outer Space Scientific and Technical Subcommittee Forty-fourth session Vienna, 12-23 February 2007

Draft report

Addendum

III. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)

1. In accordance with General Assembly resolution 61/111, the Scientific and Technical Subcommittee continued its consideration of agenda item 5, on the implementation of the recommendations of UNISPACE III. Pursuant to paragraph 13 of Assembly resolution 61/111, the Subcommittee requested the Working Group of the Whole, reconvened at its 660th meeting, on 13 February, to consider the issue.

2. At its [...]th meeting, on [...] February, the Subcommittee endorsed the recommendations of the Working Group of the Whole concerning the implementation of the recommendations of UNISPACE III, as contained in the report of the Working Group (see annex [...]).

3. The representatives of Canada, Chile, India, Italy, Japan, Nigeria and the United States made statements on the item. The observers for ISU and SIA also made statements.

4. The Subcommittee heard the following scientific and technical presentations on the item:

(a) "Ecuadorian pro tempore secretariat of the Fifth Space Conference of the Americas", by the representative of Ecuador;

(b) "The Italian Space Centre 'Luigi Broglio' in Kenya: space technology for sustainable development", by the representative of Italy;

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(c) "Polish student activities in space research and education", by the representative of Poland;

(d) "Making satellite technology work for health: WHO priority eHealth programs", by the observer for WHO;

(e) "Space technology for sustainable agriculture: the Indian scenario", by the representative of India.

5. The Subcommittee recalled the importance of implementing the Plan of Action contained in the report of the Committee on the Peaceful Uses of Outer Space on the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (A/59/174, sect. VI.B) and endorsed by the General Assembly in its resolution 59/2 of 20 October 2004.

6. The Subcommittee noted that, in accordance with paragraph 18 of General Assembly resolution 59/2, the Committee on the Peaceful Uses of Outer Space should continue to consider, in its future sessions, the implementation of the recommendations of UNISPACE III until the Committee considered that concrete results had been achieved.

7. The Subcommittee noted with appreciation that a number of activities and initiatives had been undertaken by Member States in the previous year with a view to contributing to the further implementation of the recommendations of UNISPACE III. The Subcommittee also noted with appreciation the contributions made by United Nations entities and other observers of the Committee to the implementation of those recommendations.

8. The Subcommittee noted the unique contributions that the action teams had made to the efforts to implement the recommendations of UNISPACE III and that the Action Team on Public Health, co-chaired by Canada and WHO, had been re-established and had held a meeting during the session.

9. The Subcommittee noted with appreciation that the International Committee on GNSS (ICG) had held its first meeting in Vienna on 1 and 2 November 2006 to review and discuss matters relating to global navigation satellite systems (GNSS) and their applications, in particular the efficiency and safety of transport, search and rescue, geodesy, land management and sustainable development. The Subcommittee also noted that ICG had addressed the enhancement of universal access to, and compatibility and interoperability of, space-based navigation and positioning systems and the integration of those services into national and regional infrastructure, particularly in developing countries. The report of the meeting is contained in document A/AC.105/879. The Subcommittee further noted that the second meeting of ICG would be held in Bangalore, India, in December 2007.

10. The Subcommittee noted that the Committee, at its forty-ninth session, had agreed that member States should be requested to provide input for the development of a concise document that would emphasize the benefits of the use of, and tools offered by, space science and technology and their applications for meeting the challenges being faced, in particular, by developing countries with regard to the issues to be addressed by the Commission on Sustainable Development in the period

 $2008-2009.^{1}$ In accordance with that agreement, the Working Group of the Whole of the Subcommittee conducted the first review of the draft concise document (A/AC.105/C.1/2006/CRP.6), to be finalized by the Committee at its fiftieth session.

11. The view was expressed that the recommendations of UNISPACE III could be firmly implemented in collaboration with member States, United Nations entities and other international organizations.

12. The view was expressed that the Working Group of the Whole should focus its discussion on the implementation of the following three actions called for in the Plan of Action: maximizing the benefits of existing space capabilities for disaster management; maximizing the benefits of the use and applications of GNSS, to support sustainable development; and enhancing capacity-building in space-related activities.

13. The view was expressed that the use of space technology to counter or mitigate the effects of climate change should be a major focus in the implementation of the recommendations of UNISPACE III.

X. Space-system-based disaster management support

14. In accordance with General Assembly resolution 61/111, the Scientific and Technical Subcommittee considered agenda item 10, "Space-system-based disaster management support", under the three-year workplan adopted at its forty-first session (A/AC.105/823, annex II) and amended at its forty-second session (A/AC.105/848, annex I).

15. Statements on the item were made by the representatives of Argentina, Austria, Canada, Chile, China, Colombia, Ecuador, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Japan, Nigeria, the Russian Federation, South Africa, the Syrian Arab Republic, Turkey and the United States. The observer for Switzerland also made a statement.

16. The Subcommittee heard the following scientific and technical presentations on the item:

(a) "SPIDER programme", by a representative of the Office for Outer Space Affairs;

(b) "GMES activities in emergency humanitarian mapping: RESPOND experience and lessons learned";

(c) "Sentinel Asia contributing to disaster management support in the Asia-Pacific region", by the representative of Japan;

(d) "On the International Charter 'Space and Major Disasters'";

(e) "GEO activities towards disaster reduction: space observations value", by the observer for GEO;

¹ Official Records of the General Assembly, Sixty-first Session, Supplement No. 20 (A/61/20), paras. 64-65.

(f) "IGOS geohazards: toward an improved use of Earth observations for geohazards mitigation";

(g) "Use of space-systems for wildland fire early warning, monitoring and decision support in wildfire disaster management", by the observer for GEO;

(h) "Disaster management", by the observer for UNITAR;

(i) "Space-based information to support disaster management in Indonesia", by the representative of Indonesia;

(j) "The scientific experience of basic space research contribution for the use of microsatellite platforms for the warning and liquidation of hazard situations", by the representative of the Russian Federation.

17. The Subcommittee noted with satisfaction that in paragraph 6 of General Assembly resolution 61/110 of 14 December 2006, the Assembly had decided to establish a programme within the United Nations to provide universal access to all countries and all relevant international and regional organizations to all types of space-based information and services relevant to disaster management.

18. The Subcommittee noted that in paragraph 15 of General Assembly resolution 61/110, the Assembly had agreed that the programme should be named the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (SPIDER), and that it should be implemented as a programme of the Office for Outer Space Affairs under the Director of the Office.

19. The Subcommittee also noted that in paragraph 13 of General Assembly resolution 61/110, the Assembly had requested the Office for Outer Space Affairs to develop a detailed workplan for the programme for 2007 and for the biennium 2008-2009 to be considered during the forty-fourth session of the Subcommittee, taking into consideration the commitments received, and in consultation with the representatives of countries that had provided or would be providing commitments, as well as with the representatives of other countries that had indicated their interest in contributing to the development of the workplan.

20. In accordance with the request from the General Assembly, the Office for Outer Space Affairs presented for consideration by the Subcommittee a proposed platform programme for the period 2007-2009 and a proposed plan of work for 2007 (A/AC.105/C.1/2007/CRP.14).

21. The Subcommittee noted that, in preparing the proposed programme for the period 2007-2009, the Office for Outer Space Affairs had taken into consideration the endorsement by the General Assembly of the recommendation made by the Committee on the Peaceful Uses of Outer Space at its forty-ninth session that the programme have an office in Beijing and an office in Bonn, Germany, and that the activities of the programme be carried out within the proposed implementation framework contained in document A/AC.105/873.

22. The Subcommittee noted that, in preparing the proposed plan of work for 2007, the Office for Outer Space Affairs had also taken into consideration the commitments and indication of future commitments received by 11 January 2007 from Algeria, Argentina, Austria, China, Germany, India, Indonesia, Italy, Morocco, Nigeria, Romania, the Russian Federation, Switzerland, the Syrian Arab Republic and Turkey.

23. The Subcommittee commended the Office for Outer Space Affairs for the proposed platform programme for the period 2007-2009 and the proposed plan of work for 2007 and noted with satisfaction that the commitments of support made by Member States would enable the activities of the new programme to begin immediately. Commitments from Member States included the provision of secondment of experts, cash and in-kind contributions, including satellite-based data and training and capacity-building facilities, as well as fully furnished and equipped office space in Beijing and in Bonn, Germany.

24. The Subcommittee noted that the Office for Outer Space Affairs would make available the part-time services of one staff member at the Professional level and one executive assistant to coordinate with all partners the implementation of activities in the plan of work of the programme for 2007, including with activities organized under the United Nations Programme on Space Applications.

25. The Subcommittee agreed that the implementation of the new programme should include the following steps:

(a) The Office for Outer Space Affairs should work with China and Germany in setting up, at the earliest date possible, the offices in Beijing and Bonn and should coordinate with the various partners in the implementation of the activities planned for 2007;

(b) In implementing the activities to be carried out in 2007 and in developing the plan of work for the biennium 2008-2009, the Office should consider the contributions and commitments of the network of regional support offices;

(c) The Office should correspond with all Member States, inviting them to make cash and in-kind contributions to implement the SPIDER plan of work for 2007 and to indicate possible commitments of support for the programme in the biennium 2008-2009;

(d) The Office should develop a plan of work for the biennium 2008-2009, to be considered by the Committee at its fiftieth session, taking into consideration the indication of commitments received for the biennium 2008-2009 and building upon the opportunities provided by the network of regional support offices. A framework and a proposed workplan of the liaison office in Geneva should also be included in the plan of work for the biennium 2008-2009;

(e) The Office should report to the Scientific and Technical Subcommittee, at its forty-fifth session, on the activities carried out by SPIDER in 2007;

(f) The Office should present for consideration by the Committee on the Peaceful Uses of Outer Space, at its fiftieth session, a report summarizing the background of the establishment of SPIDER, including the main considerations put forward by the ad hoc expert group in its reports (A/AC.105/873 and A/AC.105/C.1/L.285); a framework for the operating procedures of the programme, including the coordination of activities among the offices and the network of regional support offices; and the resources required to carry out its workplan for the biennium 2008-2009; a recommendation for the establishment of an advisory board was also put forward by the ad hoc expert group in its report to the Committee (A/AC.105/873).

26. The Subcommittee noted with satisfaction that the support provided by the International Charter on Space and Major Disasters was a good example of the value of coordinated Earth observations and the sharing of data and information. Since its establishment five years ago, the Charter had been activated approximately 100 times and had made available satellite-based products to support emergency response activities. Activities organized in 2006 under the Charter included a seminar for representatives of national civil protection agencies, organized by the National Commission on Space Activities (CONAE) of Argentina, with the support of ESA, the Italian Space Agency (ASI), the United States Geological Survey and the National Oceanic and Atmospheric Administration (NOAA) of the United States.

27. The Subcommittee also noted with satisfaction the progress made in the implementation of Sentinel Asia project, an initiative being spearheaded by space and disaster management organizations in Asia and the Pacific, and that the achievements of Sentinel Asia had been reported at the thirteenth session of the Asia-Pacific Regional Space Agency Forum.

28. The Subcommittee noted the active involvement of several member States in the activities of a number of international initiatives, including GEOSS, being implemented by GEO, and GMES, being implemented by the European Union and ESA.

29. The Subcommittee noted a number of initiatives that were contributing to the increasing availability and use of space-based solutions to support disaster management, including the development of the Italian-Argentine Satellite System for Emergency Management (SIASGE); the launching of RADARSAT-2, which would strengthen ongoing efforts to detect potential disasters; the use of IRS images and INSAT-based communications and telemedicine services for post-disaster relief operations; the acquisition of satellite data from the Advanced Land Observing Satellite ("Daichi") of Japan; the ISRO satellite-based search and rescue network, which helped to save 30 crew members on board the ship Glory Moon in 2006; the International Satellite System for Search and Rescue (COSPAS-SARSAT) mission control centre of Nigeria, which had been supporting search and rescue operations in aviation-related disasters; the development of the geological hazard map of Nigeria; and the full and open direct broadcast of data from NOAA environmental satellites to users worldwide, along with Earth observation data from the National Aeronautics and Space Administration (NASA) and Landsat satellites operated by the United States Geological Survey.

30. The view was expressed that delegations of members of the Subcommittee should urge their respective Governments to accede to and/or ratify the Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations,² which had entered into force on 8 January 2005. It was noted that the Tampere Convention, which contributed to the greater availability of telecommunication equipment for disaster mitigation and relief, was a legally binding international instrument aimed at helping relief workers bring telecommunication equipment across borders during and after emergencies, with a minimum of difficulty.

² United Nations, Treaty Series, vol. 2296, No. 40906.

XI. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries

31. In accordance with General Assembly resolution 61/111, the Scientific and Technical Subcommittee considered agenda item 12, on the geostationary orbit and space communications, as a single issue/item for discussion.

32. The representatives of Colombia, Ecuador, Kazakhstan and Venezuela (Bolivarian Republic of) made statements on the item.

33. The Subcommittee noted with satisfaction the launch of the first communication and broadcasting satellite, KazSat 1, into geostationary orbit by Kazakhstan in June 2006. The Subcommittee also noted future plans of Kazakhstan to establish a national system of communication satellites, KazSat 2 and KazSat 3, in conjunction with its new space programme for the period 2008-2020, which is under development.

34. The Subcommittee noted that a representative of Colombia had made a presentation entitled "GEO occupancy analyser tool (GOAT)" at the COSPAR/IAF symposium.

35. Some delegations reiterated the view that the geostationary orbit was a limited natural resource, which ran the risk of becoming saturated. Those delegations were of the view that the exploitation of the geostationary orbit should be rationalized and made available to all countries, irrespective of their current technical capabilities, thus giving them the opportunity to have access to the geostationary orbit under equitable conditions, taking into account in particular the needs of developing countries and the geographical position of certain countries, with the participation and cooperation of ITU. Those delegations therefore considered that the item on the geostationary orbit should remain on the agenda of the Subcommittee for further discussion, with the purpose of continuing to analyse its technical and scientific characteristics.

36. The view was expressed that a study of the history of occupancy of the geostationary orbit using GOAT illustrated the need to review the current mechanisms for the use of that scarce resource. That delegation called for the pursuit of a more equitable and rational utilization of the geostationary orbit.

37. The view was expressed that developed countries should assist developing countries by providing the means and the technological capacity to have equitable access to the geostationary orbit, in order to promote socio-economic development, taking into account the vital role of communication satellites in geostationary orbit in reducing the digital divide.

38. The view was expressed that the Committee on the Peaceful Uses of Outer Space, which had the required competency, should pay increasing attention to the technical, political and legal aspects of access and use of the geostationary orbit with a view to establishing a legal framework and an international regime applying to the geostationary orbit.

39. The view was expressed that the Committee should establish a closer linkage with ITU, the only organization with the mandate to assign radio frequencies and associated orbit positions, in order to contribute to the extent possible to the work of the ITU World Radiocommunication Conference.