United Nations A/AC.105/C.1/L.286/Add.1

General Assembly

Distr.: Limited
28 February 2006

Original: English

Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
Forty-third session
Vienna, 20 February-3 March 2006

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 60/99, the Scientific and Technical Subcommittee continued its consideration of agenda item 6, on the implementation of the recommendations of UNISPACE III. Pursuant to paragraph 13 of Assembly resolution 60/99, the Subcommittee requested the Working Group of the Whole, established at its 641st meeting, on 21 February, to consider the issue.

2. At its […] meeting, on […] March, 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, Japan, Morocco, Nigeria, the United States and […] made statements on the item. The observers for ESPI, ISU and SGAC also made statements.

4. The Subcommittee once again emphasized 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.

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5. The Subcommittee noted that, in accordance with paragraph 18 of General Assembly resolution 59/2, the Committee 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.

6. The Subcommittee noted with satisfaction the progress being made by Member States, through national and regional programmes and activities, as well as bilateral cooperation, to further implement the recommendations of UNISPACE III.

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, including the recommendations on enhancing education and training opportunities, promoting the participation of youth in space-related activities and ensuring public awareness of the importance of space activities.

8. The view was expressed that the implementation of the recommendations of UNISPACE III would help developing countries to meet certain challenges. That delegation was of the view that developed countries could pool their resources to enable developing countries to initiate programmes on space applications that had proved successful in other developing countries.

9. The view was expressed that private industry could be invited to support the implementation of the recommendations of UNISPACE III by contributing to and participating in future projects with well-defined objectives.

10. The view was expressed that complementary bilateral and multilateral activities between States and the strengthening of relations between regional and international frameworks would firmly contribute to the implementation of the recommendations of UNISPACE III.

11. The Subcommittee agreed that the establishment of action teams to implement the recommendations of UNISPACE III was a unique approach in that it allowed the participation of governmental and non-governmental entities in the follow-up to UNISPACE III while preserving the pivotal role of Member States.

12. The Subcommittee noted with appreciation that Member States had continued to contribute to the work of the action teams by participating in those teams which were continuing their work and by implementing the recommendations of those teams which had concluded their work.

13. The Subcommittee agreed that the continued pursuit of the objectives and goals of the action teams demonstrated the willingness and commitment of Member States to maximize the benefits of using space technologies to improve the well-being of humanity.

14. The view was expressed that the follow-up of the recommendations of UNISPACE III should take into consideration local and regional capabilities and needs and that the outstanding work of the action teams should be followed by the definition and implementation of action plans describing specific goals, means and tasks.

15. The Subcommittee noted with appreciation the progress made with regard to the 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. The views of member States and decisions of the Subcommittee with regard to the study are reflected in paragraphs […-...] of the present report.

16. The Subcommittee noted with appreciation that the International Committee on GNSS (ICG) had been established on a voluntary basis as an informal body to promote cooperation, as appropriate, on matters of mutual interest related to civil satellite-based positioning, navigation, timing and value-added services, as well as the compatibility and interoperability of GNSS systems, while increasing their use to support sustainable development, particularly in developing countries. The Subcommittee noted that the participants interested in establishing ICG had agreed that the Office for Outer Space Affairs would serve, on an interim basis, as the focal point for matters relating to organizing the establishment of an ad hoc working group and the first meeting of ICG.

17. The view was expressed that ICG would be an important mechanism for promoting the benefits of GNSS, particularly in developing countries.

18. The Subcommittee noted that the Committee, at its forty-eighth session, had agreed to establish a closer link between its work relating to the implementation of the recommendations of UNISPACE III and the work being carried out by the Commission on Sustainable Development and that the Subcommittee at its current session should review and finalize a concise document on the contribution that space science and technology and their applications could make to the thematic areas to be addressed by the Commission in the period 2006-2007.[1]

19. The Subcommittee had before it a conference room paper containing the contribution of the Committee to the work of the Commission on Sustainable Development for the thematic cluster 2006-2007 (A/AC.105/C.1/2006/CRP.9/Rev.1). The Subcommittee endorsed the text contained in that conference room paper, which had been reviewed and finalized by the Working Group of the Whole, and requested the Office for Outer Space Affairs to transmit the text, in accordance with the agreement reached by the Committee at its forty-eighth session, to the Commission on Sustainable Development at its fourteenth session, to be held from 1 to 12 May 2006.

20. The Subcommittee noted that the head office of the International Satellite System for Search and Rescue (COSPAS-SARSAT), had relocated to Montreal, Canada. The Subcommittee also noted that enhancements were being developed that would enable search and rescue payloads to fly on the Global Positioning System (GPS), Global Navigation Satellite System (GLONASS) and European Satellite Navigation System (Galileo) satellites that would be part of the Medium-Earth Orbit Search and Rescue (MEOSAR) system.

21. The Subcommittee took note with appreciation of the reports by Member States on the promotion and organization of public outreach activities in celebration of World Space Week.

IX. Space-system-based disaster management support

22. In accordance with General Assembly resolution 60/99, the Scientific and Technical Subcommittee considered agenda item 12, "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).

23. Statements on the item were made by the representatives of Austria, China, Colombia, France, Germany, India, Indonesia, Italy, Japan, Malaysia, Nigeria, the Republic of Korea, Romania, the Russian Federation, Thailand, the United Kingdom, the United States and Venezuela (Bolivarian Republic of). The observer for WMO also made a statement.

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

(a) "The application of space technology for the establishment of Indonesia's Tsunami Early Warning System", by the representative of Indonesia;

(b) "JAXA's activities for disaster management support", by the representative of Japan;

(c) "Use of the national space meteorological system for forecasting of man-caused emergency situations", by the representative of the Russian Federation;

(d) "Global wildland fire forecasting using space technologies", by the observer for ISU;

(e) "Disaster reduction and enhancing education for sustainable development", by the observer for UNESCO;

(f) "UNOSAT impact on the work of the United Nations in disaster management and humanitarian relief", by the observer for UNITAR.

25. In accordance with the agreement of the Committee on the Peaceful Uses of Outer Space at its forty-eighth session,[2] the Subcommittee had before it, for its review and recommendation to the Committee, the study of the ad hoc expert group 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).

26. The representative of Romania, on behalf of the ad hoc expert group, presented to the Subcommittee an overview of the study (A/AC.105/C.1/2006/CRP.12).

27. The Subcommittee commended the ad hoc expert group for the excellent study that it had prepared for its consideration.

28. The Subcommittee noted that the ad hoc expert group had stressed that the proposed disaster management international space coordination entity (DMISO) 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.

29. While appreciating the role and functions of the proposed entity, the Subcommittee agreed that its creation should not lead to duplication of efforts and required close consultation 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, the Global Earth Observation System of Systems (GEOSS) being implemented by the intergovernmental Group on Earth Observations (GEO), the Global Monitoring of the Environment and Security (GMES) and programmes and projects such as RESPOND and the United Nations Organization Satellite (UNOSAT) programme, 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).

30. The Subcommittee noted that the expert group had also indicated that the entity being proposed should be implemented as a United Nations programme under the leadership of the Office for Outer Space Affairs, located within the Office and/or hosted by Member States offering to provide facilities and partial operational support. The expert group had invited delegations to express their possible commitments towards the establishment of the proposed entity.

31. The Subcommittee noted the offers made by members of the Subcommittee to provide experts and to host the proposed entity.

32. 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 […] 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 meet before the forty-ninth session of the Committee 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;

(e) The Committee, after its review, would make its recommendation to the General Assembly at its sixty-first session.

33. The view was expressed that the proposed entity could provide technical support, such as knowledge-sharing, pre-disaster preparations, early warning, assessments during and after disasters , recovery and reconstruction, and education and training, and that it could provide practical and training support for the work of the ISDR secretariat. That delegation was of the view that the proposed entity could support and complement other international organizations and initiatives dealing with disaster reduction and management.

34. The view was expressed that there were concerns about the availability of funds, given the resources that would be needed to establish and operate the proposed entity. The view was also expressed that the level of resources proposed in the study of the ad hoc expert group needed a review in the light of the potential for existing international and national activities to provide or support some of the functions of the proposed entity.

35. The view was expressed that the overall approach towards establishing the proposed entity not only should address post-disaster issues, but also should be aimed more at identifying the technology elements that would help in disaster prediction and prevention. That delegation was of the view that a proper merger of remote sensing and meteorological satellite data with ground modelling and processing techniques would result in effective prevention measures.

36. The view was expressed that, with regard to establishing the proposed entity, the ad hoc expert group needed to further examine certain specific issues, including national procedural requirements.

37. The Subcommittee was of the view that international entities such as the Committee on Earth Observation Satellites (CEOS), the Coordination Group for Meteorological Satellites (CGMS) and the Committee on the Peaceful Uses of Outer Space were important because of their role in encouraging the development of research satellites, in easing the transition from research assets to operational systems and in helping to ensure that all countries had access to timely and robust data, and that the collaborative efforts of such organizations would help in ensuring that space-based systems were effectively supported and utilized.

38. The Subcommittee noted with satisfaction that the work carried out by the International Charter on Space and Major Disasters over the past year was a successful example of the value of coordinated Earth observations. The Subcommittee noted that, in 2005, JAXA and the Disaster Monitoring Constellation (DMC) had joined the Charter and that the China National Space Administration had applied to join the Charter and would provide data support from the CBERS series and the Feng Yun meteorological satellites to the Charter. The Subcommittee further noted that the Charter had been activated a total of 25 times in 2005, an increase of 20 per cent over 2004, contributing to emergency relief efforts in both developing and developed countries.

39. The Subcommittee noted that the purpose of GEOSS was to achieve comprehensive, coordinated and sustained observations of the Earth system in order to improve an understanding of Earth processes and enhance prediction of the behaviour of the Earth system. The Subcommittee also noted that reducing loss of life and property from natural and human-induced disasters was one of the nine societal benefits addressed in the GEO 10-year implementation plan for GEOSS. The Subcommittee further noted that the disaster-related activities of GEO in 2006

would focus on: priorities jointly identified by the GEO Working Group on Tsunami Activities and the Intergovernmental Oceanographic Commission; developing a multi-hazard approach to early warning and crisis management; and expanding the use of Earth observations for disaster prevention and mitigation.

40. The Subcommittee noted with satisfaction the number of new space-based technology solutions and opportunities planned or currently in use by Member States to support disaster management activities. Those included, inter alia, the Constellation of Small Satellites for Mediterranean Basin Observation (COSMO-SkyMed) high-resolution synthetic aperture radar (SAR) satellite constellation; the implementation of the Italian-Argentine Satellite System for the Management of Emergency (SIASGE); the Emergesat coordination tool, which used telecommunication, Earth observation and navigational satellites specifically for the coordination of international assistance during major crises; the GUSTAV project, which would improve the accuracy and reliability of the information relevant to disasters and their mitigation; the plan to establish ground- and space-based facilities for disaster early warning in Nigeria; the Alpbach Summer School, which would focus on the theme "Monitoring of natural hazards from space" in 2006; the Sentinel-Asia project, which would support the sharing of disaster-related information in Asia and the Pacific; the proposed launch by the Republic of Korea of KOMPASAT-1 and -2; and the recent launch by Japan of the Advanced Land Observing Satellite (ALOS) Daichi, which would be able to acquire data useful to a rescue or recovery plan following a disaster.

41. The Subcommittee noted with satisfaction the contribution of space-based technologies in supporting the recovery and reconstruction activities in the aftermath of the Indian Ocean tsunami of 2004, including the setting up of tsunami early warning systems in Indonesia and Malaysia; the establishment in Thailand of the Satellite Imagery-Based Information Center for Tsunami Recovery; and the proposed establishment in India of a tsunami early warning system for the area of the Indian Ocean.

42. The Subcommittee noted that the Asian Conference on Disaster Reduction would be held in Seoul from 15 to 17 March 2006. The aim of the Conference was to identify the challenges and promote the implementation of disaster risk reduction within the context of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters,[3] which was the outcome of the World Conference on Disaster Reduction held in Kobe, Japan, from 18 to 22 January 2005.

43. In accordance with the workplan for this agenda item, the Subcommittee also received reports and heard presentations from specialized entities in the United Nations system on their activities in the area of space-system-based disaster management support, as well as regional disaster management structures. Written reports received by the Office for Outer Space Affairs from those agencies were made available to the Subcommittee in A/AC.105/C.1/2006/CRP.13.

44. Also in accordance with the workplan for this agenda item, the Subcommittee held a workshop on disaster management involving communication and meteorological satellite operators on 23 and 24 February. The afternoon of 23 February was dedicated to communication satellite operators and the afternoon

of 24 February was dedicated to meteorological satellite operators. The workshop was moderated by J. Akinyede (Nigeria).

45. The following presentations were made at the workshop: "The role of communication and meteorological satellites in disaster management support: the experience of ISRO", by D. Radhakrishnan of India; "Mobile satellite communications for disaster management", by J. O'Brien of Iridium Satellite; "Functions of satellite networks in the communication system of EMERCOM of Russia and experience of activities in emergencies", by E. Osipov of the Russian Federation; "Instant readiness: applications of Inmarsat technology in disaster management", by P. Maerkedahl Larsen of Inmarsat; "EUMETCast: EUMETSAT's Broadcast System for Environmental Data", by G. Bridge of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT); "Chinese meteorological satellites and applications", by Fang X. of China; "Space-borne system for online precursor monitoring of earthquakes and other natural and man-made disasters", by Y. Ruzhin of the Russian Federation; and "Satellite meteorology: protecting life and property around the world", by G. Bridge of EUMETSAT. The presentations were followed by a panel discussion on: (a) ways to overcome the obstacles preventing countries, particularly developing countries, from using satellite-based communications and meteorology during natural disasters; and (b) effective steps that communication and meteorological satellite operators could take together in order to enhance the use of communication satellites in managing natural disasters.

XI. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including, inter alia, 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

46. In accordance with General Assembly resolution 60/99, the Scientific and Technical Subcommittee considered agenda item 14, on the geostationary orbit and space communications, as a single issue/item for discussion.

47. The representatives of Colombia, Ecuador, Greece, Indonesia and Venezuela (Bolivarian Republic of) made statements on the item.

48. 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 the International Telecommunication Union (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.

49. The view was expressed that developing countries, particularly those in certain geographical positions, should be guaranteed, by legislative means, access and use of the geostationary orbits and that a certain number of geostationary orbital positions should be reserved for use by developing countries when those countries had developed the necessary technical capacity.

50. 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, taking into account the vital role played by communication satellites in that orbit to reduce the digital divide.

51. The view was reiterated that, in view of the risk of saturation inherent in the geostationary orbit, preference should be given to countries in tropical areas in the assignment of spectrum resources within the geostationary orbit.

52. The Subcommittee noted that Colombia had begun an in-depth study called the geostationary occupancy analyser tool (GOAT), based on the geostationary orbit analysis, that would show the past and present status of the geostationary orbit. The study, which was being carried out with the participation of the Office for Outer Space Affairs and ITU, was expected to be presented to the Committee on the Peaceful Uses of Outer Space at its forty-ninth session, in 2006.

53. The view was expressed that the Committee on the Peaceful Uses of Outer Space should pay increasing attention to legal issues also relating to the access and use of the geostationary orbit and that, for that reason, closer linkage with ITU (the only organization legally authorized to assign radio frequencies and any associated orbits) should be taken into consideration before that topic was discussed further in the subcommittees of the Committee.

Notes

[1] *Official Records of the General Assembly, Sixtieth Session, Supplement No. 20* and corrigenda (A/60/20 and Corr.1), paras. 49-52.

[2] Ibid., paras. 57-58.

[3] A/CONF.206/6, chap. I, resolution 2.