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Item 7 of the provisional agenda*

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

Draft 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 (UNISPACE III)

Addendum**

III. Progress achieved in implementing recommendations

A. Progress made in the Committee and its subsidiary bodies

1. Achievements of the Committee and its subsidiary bodies in the consideration of agenda items

1. The Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee and Legal Subcommittee addressed some of the elements contained in the Vienna Declaration through consideration of items on their agendas at their annual sessions. The agreement reached by the Committee at its session in 1999¹ to revise the structure of the agendas of both subcommittees resulted in a revitalization of the work of those bodies and a strengthening of their role in promoting international cooperation in the peaceful uses of outer space.

* A/AC.105/L.256.

** The document was prepared following the conclusion of informal consultations by the working group established by the Committee on the Peaceful Uses of Outer Space to prepare its report to the General Assembly for the review of the progress made in the implementation of the recommendations of UNISPACE III.



Annex [...]*** to the present report contains information on the achievements of the Committee and its subsidiary bodies to date as a result of consideration of issues introduced under the revised agenda structure.

(a) Committee on the Peaceful Uses of Outer Space

2. The Committee on the Peaceful Uses of Outer Space first considered the item entitled “Space and society” in 2002. Consideration of the item provided opportunities for non-governmental entities to inform the Committee on their efforts to increase awareness among the general public of the importance of space activities. Starting in 2004, the Committee will focus its discussions under this agenda item on “Space and education”. In accordance with its three-year work plan, the Committee aims to develop by 2006 specific and concrete action plans for bringing space issues into education, enhancing education in space and expanding space tools for education, with inputs to be provided by its action teams on knowledge-sharing, capacity-building and increasing awareness (recommendations 9, 17 and 18 of UNISPACE III). Through the discussions on this issue, the Committee also aims to further strengthen cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO).

3. At its 2004 session, the Committee will also address “Space and water” as a new agenda item. The consideration of this item is timely, as the Committee will be able to take into account the results of the activities held in 2003 relating to the International Year of Freshwater and also contribute to the discussions on water, which has been selected as one of the three thematic clusters to be addressed for the period 2004-2005, in the Commission on Sustainable Development at its 2005 session.

(b) Scientific and Technical Subcommittee

4. The Scientific and Technical Subcommittee agreed at its thirty-seventh session, in 2000, that the elements contained in the Vienna Declaration could be addressed through the consideration of agenda items under multi-year work plans. The following actions called for in the Vienna Declaration have been considered by the Subcommittee under multi-year work plans, with specific objectives to be achieved within a fixed time period: (a) means and mechanisms for strengthening inter-agency cooperation and increasing the use of space applications and services within and among entities of the United Nations system;² (b) implementation of an integrated, space-based global natural disaster management system;³ (c) use of nuclear power sources in outer space;⁴ (d) space debris;⁵ and (e) space-system-based telemedicine.

5. The results achieved under the item relating to inter-agency cooperation are described further in paragraphs [...] below. Under the item relating to disaster management, the Subcommittee identified national and regional space-based systems that could be considered for a global system to manage natural disasters. The Subcommittee also recognized the importance of various international initiatives, such as the work of the Ad Hoc Working Group on Disaster Management Support of the Committee on Earth Observation Satellites (CEOS), efforts of the

*** The annex to be attached to the final report of the Committee is contained in draft form in document A/AC.105/L.255/Add.6, annex II.

secretariat of the International Strategy for Disaster Reduction, the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (the “International Charter ‘Space and Major Disasters’”) and the International Satellite System for Search and Rescue (COSPAS-SARSAT). The Subcommittee also examined existing satellite and data distribution systems that could be used for disaster management. The work conducted by the Subcommittee under the agenda item is being complemented by the work of the Action Team on Disaster Management, with support from the Office for Outer Space Affairs.

6. The item on the use of nuclear power sources had been on the agenda of the Scientific and Technical Subcommittee before UNISPACE III. Under the work plan adopted for the period 1998-2003, the Subcommittee, through its Working Group on the Use of Nuclear Power Sources in Outer Space, produced a review of international documents and national processes potentially relevant to the peaceful uses of nuclear power sources in outer space (A/AC.105/781). The Subcommittee took a step further by adopting a new work plan, for the period 2003-2006, for developing an international technically based framework of goals and recommendations for the safety of nuclear power source applications in outer space (A/AC.105/804, annex III).

7. The item on space debris had also been on the agenda of the Scientific and Technical Subcommittee before UNISPACE III. Under the work plan adopted for the period 1996-1998, the Subcommittee prepared a technical report on space debris (A/AC.105/720), which reflected the collective knowledge and expertise of the members of the Committee on the measurements of space debris, modelling the space debris environment, risk assessment and space debris mitigation measures. The Inter-Agency Space Debris Coordination Committee (IADC) also provided valuable support for the preparation of the report. Following UNISPACE III, the Subcommittee took a further step by reviewing international application of International Telecommunication Union (ITU) standards and recommendations of IADC concerning the disposal of satellites in geosynchronous orbit at the end of their useful life. The Subcommittee also considered debris mitigation measures and the passivation and limitation of mission-related space debris for launch vehicles, including cost-benefit aspects. In accordance with a new work plan covering the period 2002-2005, the Subcommittee established a working group in 2004 to consider comments from States members of the Committee on the Peaceful Uses of Outer Space on the proposals on space debris mitigation presented by IADC to the Subcommittee in 2003. In 2005, Member States would begin reporting, on a voluntary basis, on their national activities to implement the proposals on space debris mitigation.

8. Following its consideration of the use of space technology for the medical sciences and public health, the Subcommittee adopted a work plan for the period 2004-2006 to consider space-based telemedicine. By the end of the work plan, it is anticipated that the Subcommittee will identify ways and means of enhancing the capacity of developing countries to use space-based telemedicine systems and possible bilateral or multilateral projects to develop further space-based telemedicine applications through international cooperation.

(c) Legal Subcommittee

9. Since before UNISPACE III, the Legal Subcommittee has been considering the item on matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of ITU. The Subcommittee reached an agreement in 2000 on some aspects concerning the use of the geostationary orbit (A/AC.105/738, annex III), including a recommendation, inter alia, that where coordination was required between countries with a view to the utilization of satellite orbits, including the geostationary satellite orbit, the countries concerned should take into account the fact that access to that orbit had to take place, inter alia, in an equitable manner and according to the ITU Radio Regulations. The agreement was transmitted to ITU.

10. Another item that has been on the agenda of the Legal Subcommittee since before UNISPACE III is the item on the status and application of the five United Nations treaties related to outer space. Consideration of this item responds directly to one of the actions called for by UNISPACE III, to promote the efforts of the Committee in the development of space law by inviting States to ratify or accede to, and inviting intergovernmental organizations to declare acceptance of, the outer space treaties developed by the Committee. Following UNISPACE III, the Subcommittee established a working group, to conduct its work from 2002 to 2004, to review the status of the treaties, their implementation and obstacles to their universal acceptance, as well as promotion of space law, especially through the United Nations Programme on Space Applications.

11. The introduction of “items to be considered under work plans” in the agenda structure has proved to be a particularly valuable mechanism to achieve specific objectives and yield practical results within a fixed timeframe. This is evidenced by the results achieved under the multi-year work plan on the review of the concept of the “launching State” and the work conducted by the working group established to consider that agenda item. In 2002, the working group adopted a set of conclusions (A/AC.105/787, annex IV, appendix). The work to translate those conclusions into a draft General Assembly resolution was conducted in the working group established under the agenda item on the status and application of the five United Nations treaties related to outer space. At its session in 2004, the working group agreed on the text of the draft resolution, in which the General Assembly would, among other things, recommend that Member States consider enacting and implementing national laws authorizing and providing continuing supervision of the activities in outer space of non-governmental entities under their jurisdiction; consider the conclusion of agreements in accordance with the Convention on International Liability for Damage Caused by Space Objects (Liability Convention) with respect to joint launches and cooperation programmes; and submit information on a voluntary basis on their current practices regarding on-orbit transfer of ownership of space objects.

12. The introduction of “single issues/items for discussion” in the agenda structure has also proved to be a valuable mechanism with regard to the examination of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment (opened for signature in Cape Town on 16 November 2001), which led to increased cooperation and interaction with the International Institute for the Unification of Private Law (Unidroit) and the

convening of two intersessional consultative meetings hosted by France and Italy. During the intersessional period, members of the Committee on the Peaceful Uses of Outer Space and the Office for Outer Space Affairs were also invited to participate in the first session of a committee of Unidroit composed of governmental experts for the consideration of the preliminary draft protocol. The secretariat of Unidroit also participated in the annual sessions of the Legal Subcommittee during the consideration of the matter.

13. The cross-participation in the work of the Committee and that of Unidroit contributed not only to making substantial progress in ensuring that international legal regimes being developed by bodies other than the Committee and its Legal Subcommittee that affect space activities would be consistent with the existing United Nations treaties governing outer space but also to enhancing cooperation between intergovernmental bodies responsible for the development of international law.

14. Participation by international organizations in the work of the Legal Subcommittee, in particular under the agenda item on information on the activities of international organizations relating to space law, has drawn the attention of the Subcommittee to activities of other international bodies that could be of significance to its work. One example is the report of the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) of UNESCO, which was brought to the attention of the Subcommittee in 2002. That led to the establishment of the Group of Experts on the Ethics of Outer Space, charged with studying the report of COMEST; the report of the Group of Experts (A/AC.105/C.2/L.240/Rev.1) was submitted to the Subcommittee and transmitted to UNESCO in 2003.

15. The consideration of a new agenda item, entitled "Practice of States and international organizations in registering space objects", under the multi-year work plan for the period 2004-2007, will also contribute to implementing the recommendation of UNISPACE III relating to space law. By the end of the work plan, the Legal Subcommittee is expected to identify common practices and to make recommendations for enhancing adherence to the Convention on Registration of Objects Launched into Outer Space (Registration Convention).

2. Progress achieved by action teams established by the Committee on the Peaceful Uses of Outer Space

16. The mechanism of implementing some of the recommendations of UNISPACE III through the establishment of action teams, under the voluntary leadership of Governments, has proved to be very successful.

17. Each of the action teams assessed the capability and use of space technology, in particular to meet the needs of developing countries, within the thematic area assigned to it. The assessment conducted by the action teams was unprecedented in both scope and depth. Their analyses of the current situation, their findings on the impediments to making space technology work effectively to solve the most acute problems faced by humanity and their recommendations on how to do so constitute a solid foundation for the implementation phase. A summary of the findings, recommendations, actions taken to date to implement the recommendations and

impediments to the implementation is contained in annex [...]*

The full list of membership of the action teams is contained in annex [...]** In carrying out their tasks, the action teams brought together both States and international organizations to achieve common objectives by dedicated individuals with diverse expertise from different countries and organizations to work together for the benefit of all humanity.

(a) Methods and organization of work

18. The action teams were established on the understanding that there would be no budget implications for the United Nations. The States, organizations and individuals who contributed to the work of the action teams dedicated their time, expertise and, in some cases, financial resources on a voluntary basis. Those who served as chairpersons in particular made extraordinary efforts to ensure progress in their action teams by, among other things, generating ideas, coordinating the views of the members, preparing a number of documents for use by their teams and responding to numerous requests by the Committee to report on their work and to provide inputs for the work of the Committee and its subcommittees.

19. Most of the work of the action teams has been carried out through exchange of electronic mail and teleconferences among members. Many action teams convened their meetings during the annual sessions of the Committee and its Scientific and Technical Subcommittee, taking advantage of the presence of members participating in those sessions. All the action teams fulfilled their reporting responsibilities by presenting their progress reports to the Committee and its Scientific and Technical Subcommittee at each of their sessions since 2002.

20. Some action teams also met during the workshops organized by the Office for Outer Space Affairs that addressed themes relevant to their work, on the margins of the meetings of the Inter-Agency Meeting on Outer Space Activities or at international space-related conferences organized by other entities. Some of the action teams also convened open forums to which any interested experts and individuals were invited to participate and contribute their knowledge to the work of the action teams.

(b) Overview of the major findings

21. The work of the 12 action teams collectively provides an extremely comprehensive picture of the wide range of applications of space technologies. A close review of the actual products that would result from various applications reveals their complementary nature and the synergies that could be built between them. For instance, the use of global navigation satellite system (GNSS) technologies supports protection of the environment, management of natural resources, agriculture, telemedicine and disaster management, to name a few applications that support various aspects of sustainable development. Products from programmes undertaken to protect the environment could also find applications in the management of natural resources, disaster management, global health and in many other areas of application. Through organized and coordinated dissemination

* The annex to be attached to the final report of the Committee is contained in draft form in document A/AC.105/L.255/Add.7.

** The annex is contained in draft form in document A/AC.105/L.255/Add.6, annex IV.

and exchange of information on products between different areas of application, the results achieved in one area can serve as a stepping stone for many other areas, thus building synergies and avoiding duplication. The challenge lies in determining whether the products of any given application meet the requirements for other applications.

(c) From demonstration phase to operational use

22. In their assessment of the current situation, the action teams emphasized the usefulness of space technologies for decision-making in areas relating to environmental monitoring strategies, management of natural resources, public health, disaster management and sustainable development.

23. These assessments also showed that for space technologies to become operational and yield practical benefits in the developing countries, the following requirements would need to be met: capacity-building; exact identification of user needs; involvement of all stakeholders in the development of space-based systems and services; increasing awareness of policy makers; development of long-term strategies; and political commitment.

24. Some action teams indicated the need to move beyond simple efforts to increase awareness towards providing assistance to developing countries in the integration of space technology into basic infrastructure.

(d) Overview of recommendations: information, coordination, training and awareness

25. Some of the action teams recognized that the recommendations under their responsibility could best be implemented by supporting existing initiatives and efforts.

26. Some of the common elements found in the recommendations of the action teams included better dissemination of and access to information; better coordination of existing efforts; development of policies, long-term plans and guidelines; enhancement of efforts to provide education and training opportunities; and raising awareness of the benefits of space activities among policy makers.

27. Regarding measures to achieve better coordination, some action teams suggested the creation of international entities to respond to identified needs that were not being addressed by any existing coordination and cooperation efforts and mechanisms, while other action teams identified existing organizations that could assume the coordination role.

28. The development of long-term strategies and policies was considered necessary by some action teams, such as in the areas of environmental monitoring and in applying results of space research to enhance sustainable development.

29. Most of the action teams produced compendiums of existing efforts or success stories in the areas of their responsibility, with the aim of contributing to, among other things, increasing awareness among the policy makers and the general public or enhancing knowledge-sharing among experts and programme managers.

30. As a means to disseminate information widely and to facilitate access to it, the establishment of a single portal of relevant web sites or databases, which would

include information on capacity-building efforts, was also recommended by some action teams. The Office for Outer Space Affairs was identified by some action teams as the entity to set up and host web site(s) to disseminate relevant information and to organize proposed workshops or training courses.

3. Additional members of the Committee and additional organizations that have been granted permanent observer status with the Committee on the Peaceful Uses of Outer Space

31. The Committee on the Peaceful Uses of Outer Space was established first as an ad hoc body of the General Assembly in 1958, with 18 members. When it was established as a permanent body, in 1959, membership was increased to 24 States. Between 1959 and 1999, when UNISPACE III was convened, its membership was enlarged on five occasions, to reach a total of 61 States.

32. Following UNISPACE III, the membership of the Committee has been expanded twice. In its resolution 56/51 of 10 December 2001, the General Assembly terminated the practice of sharing seats on a rotating basis between Cuba and Peru and between Malaysia and the Republic of Korea and decided that Saudi Arabia and Slovakia should become members of the Committee. (Pursuant to Assembly decision 45/315 of 11 December 1990, Yugoslavia had ceased to be a member of the Committee.) In the following year, the Assembly took note of Algeria's request to become a member of the Committee and decided to accept its membership. The membership, therefore, has reached a total of 65 States.

33. The Committee has continued its customary practice of allowing States that are not members of the Committee to participate in the open meetings of the Committee and its subcommittees and to address those bodies. The expansion of membership of the Committee resulted in an increased number of States that had opportunities to contribute to the work of the Committee and its subsidiary bodies by participating in all meetings and submitting proposals for consideration by those bodies for action.

34. The Committee began in 1962 to invite to its meetings international organizations that promoted the peaceful uses of outer space. At its second meeting the Committee invited the Committee on Space Research (COSPAR), along with such United Nations entities as UNESCO, ITU and the World Meteorological Organization, to become permanent observers. Organizations having permanent observer status with the Committee have received a standing invitation to its annual sessions and those of its subsidiary bodies and have been given opportunities to address the Committee and its subsidiary bodies in their open meetings. At the time of UNISPACE III, 11 organizations had permanent observer status with the Committee.

35. Since UNISPACE III, there has been an increase in the number of intergovernmental and non-governmental entities granted permanent observer status with the Committee. As at December 2003, the General Assembly had granted permanent observer status with the Committee to 7 more international organizations, increasing the number of organizations with such status to 18.

36. At its 2004 session, the Committee's Legal Subcommittee noted with concern a decrease in the recent years in the attendance and participation of entities of the United Nations system and organizations having permanent observer status with the

Committee in the work of the Legal Subcommittee. In response to a request by the General Assembly, in its resolution 58/89 of 9 December 2003, the Committee is considering measures to enhance the participation of those entities in the work of the Committee and its subsidiary bodies.

4. Increased number of States parties to the five United Nations treaties related to outer space

37. The Vienna Declaration called for action to promote the efforts of the Committee on the Peaceful Uses of Outer Space in the development of space law by inviting States to ratify or accede to, and inviting intergovernmental organizations to declare acceptance of, the outer space treaties developed by the Committee. Following UNISPACE III, the number of ratifications of all five treaties related to outer space increased. As at January 2004, the number of States that had ratified the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies had increased from 95 in 1999 to 98; for the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, the figure rose from 85 to 88; for the Liability Convention, from 80 to 82; for the Registration Convention, from 40 to 45; and for the Agreement Governing the Activities of States on the Moon and other Celestial Bodies, from 9 to 10. The Legal Subcommittee, in particular, is continuing its efforts and is considering further measures to increase the number of States that ratify or accede to the outer space treaties and of intergovernmental organizations that declare acceptance of them.

B. Progress achieved by national and regional efforts

38. Limited progress was achieved in implementing the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82). In its resolution 37/90 of 10 December 1982, the General Assembly decided that all new or expanded activities contained in that resolution, which expanded the mandate of the United Nations Programme on Space Applications, were to be funded mainly through voluntary contributions from States. The limited progress in the implementation of the recommendations of UNISPACE 82 could be attributed to, among other things, reliance on voluntary contributions to a great extent.

39. In contrast to the follow-up process of UNISPACE 82, there has been much emphasis on the primary responsibility of Member States for the implementation of the recommendations of UNISPACE III, and many of them have indeed carried out activities that contributed to the implementation of various recommendations. Those activities have been carried out through national programmes, or through bilateral or multilateral cooperation. The information submitted by Member States on their activities that contributed to the implementation of the recommendations of UNISPACE III can be found in the documents listed in annex [...]*

40. There are also many regional entities that have contributed to the implementation of the recommendations of UNISPACE III. The European Space Agency (ESA), for example, has been playing an important role in promoting the

* The annex is contained in draft form in document A/AC.105/L.255/Add.6, annex III, part A.

cooperation and coordination of space activities among European countries. ESA has also long been one of the major sponsors of a number of activities organized by the United Nations Programme on Space Applications that respond to recommendations of UNISPACE III. Shortly after UNISPACE III, in November 1999, the International Relations Committee of ESA identified priority areas for follow-up actions of UNISPACE III and the activities organized jointly with the Office for Outer Space Affairs reflect those priority areas. With the signing of the framework agreement on 25 November 2003 to strengthen cooperation with the European Union, it is anticipated that Europe will further strengthen its efforts to respond to societal needs through the use of space science and technology and their applications, which would also respond to many of the actions as called for in the Vienna Declaration.

41. In Asia and the Pacific, the Economic and Social Commission for Asia and the Pacific harmonizes various initiatives under the umbrella of the United Nations, including space-related activities, and has contributed to the implementation of the recommendations of UNISPACE III (see chap. III, sect. C.3*).

42. The initiatives of Asia-Pacific Multilateral Cooperation in Space and Technology Applications (AP-MCSTA), originally proposed by China, Pakistan and Thailand in 1992, have evolved to become a regional, intergovernmental mechanism for multilateral cooperation. Through joint projects, AP-MCSTA has contributed to the implementation of recommendations of UNISPACE III in the region in such areas as management of natural resources and disaster management. Discussions are currently under way on the institutionalization of AP-MCSTA by establishing an Asia-Pacific Space Cooperation Organization, which would carry out, among other things, fundamental research in space technology and its applications, execution of projects of common interest, and education and training activities.

43. Countries of Asia and the Pacific are also pursuing cooperation in space activities through less formal mechanisms, such as the Asia-Pacific Regional Space Agency Forum (APRSAP), each meeting of which is hosted by Japan and a co-host country. Since its first meeting in 1993, APRSAF has evolved from a forum for the exchange of general information among countries of the region into an action-oriented entity that addresses specific issues of interest to the region and implements recommendations resulting from its plenary meetings. The tenth APRSAF meeting, held in Thailand in January 2004, agreed to strengthen cooperation in such areas as disaster and environmental monitoring, space communications and space education.

44. Countries of Latin America and the Caribbean considered the implementation of the recommendations of UNISPACE III at the Fourth Space Conference of the Americas, held in Cartagena de Indias, Colombia, in May 2002. The Conference adopted the Declaration of Cartagena de Indias, which urged States of the region to implement the recommendations of UNISPACE III. A Plan of Action, also adopted by the Conference, instructed the pro tempore secretariat of the Conference to promote cooperation and coordination of programmes or projects in such areas as protection of the environment, disaster management, space law, education and research and development in science, technology and space applications. In its

* For the text of this portion of the draft report of the Committee, see document A/AC.105/L.255/Add.2.

resolution 58/89, the General Assembly noted the desire of Member States of the region to institutionalize the Space Conference of the Americas.

Notes

¹ See *Official Records of the General Assembly, Fifty-fourth Session, Supplement No. 20* and corrigendum (A/54/20 and Corr.1), annex.

² *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 19-30 July 1999* (United Nations publication, Sales No. E.00.I.3), chap. I, resolution 1, para. 1 (e) (iii).

³ *Ibid.*, para. 1 (b) (ii).

⁴ *Ibid.*, para. 1 (b) (iv).

⁵ *Ibid.*, para. 1 (b) (ii).
