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Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
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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 63/90, 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 63/90, the Subcommittee requested the Working Group of the Whole, reconvened at its 703rd meeting, on 11 February, to consider the issue.

2. At its […] 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 I).

3. The representatives of Canada, India, Japan, Nigeria and the United States of America made statements on the item.

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

(a) "Education activities at the German Aerospace Center: aligning strategies and capabilities for equal opportunities", by the representative of Germany;

(b) "A youth's perspective on the future of a space programme in Kuwait", by the observer for the Space Generation Advisory Council (SGAC);

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(c) "The African Leadership Conference on Space Science and Technology for Sustainable Development: review and outcomes of the second conference", by the representative of South Africa;

(d) "World Space Week 2008: Turkey's activities", by the representative of Turkey.

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), as endorsed by the General Assembly in its resolution 59/2 of 20 October 2004. The Subcommittee noted that, in accordance with paragraph 18 of 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 appreciation that additional recommendations, as set out in the Plan of Action, had been implemented and that further progress had been made in implementing the remaining recommendations.

7. The Subcommittee endorsed a proposal by the Working Group of the Whole to celebrate the tenth anniversary of UNISPACE III by organizing a panel discussion at the fifty-second session of the Committee, to be held from 3 to 12 June 2009.

8. The Subcommittee noted that the tenth anniversary of the declaration of World Space Week would be celebrated in 2009.

9. The Subcommittee expressed its satisfaction with the flexible approach that had been adopted for implementing the recommendations of UNISPACE III. By making use of multi-year workplans and establishing action teams, the Committee was able to address a wide range of issues, thereby enabling maximum implementation of the recommendations of UNISPACE III.

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

11. The Subcommittee noted that the Action Team on Sustainable Development (action team 11) and the Action Team on Near-Earth Objects (action team 14) had held meetings during the forty-sixth session of the Subcommittee. The Subcommittee also noted the progress made in the work of the Action Team on Public Health (action team 6) and that action team 11 had decided to meet again during the fifty-second session of the Committee (see A/59/174, paras. 29-31 and annex V).

12. In accordance with a recommendation of the Working Group of the Whole, the Subcommittee invited member States of the Committee to provide, by e-mail to the Secretariat (oosa@unvienna.org), input to the report of the Committee on its contribution to the work of the Commission on Sustainable Development under the thematic cluster for the period 2010-2011 by no later than 30 April 2009. That report was to be finalized by the Committee at its fifty-second session.

13. The view was expressed that the Office should integrate, through the United Nations Programme on Space Applications, activities relevant to the work of the Commission on Sustainable Development under the thematic cluster for the period 2010-2011, which included the themes of transport, chemicals, waste management and mining, as well as a 10-year framework of programmes on sustainable consumption and production patterns, while building on existing efforts of Member States, in particular developing countries, and encouraging developed countries to share experiences and best practices and contribute to building capacity for addressing challenges associated with those themes.

VI. Space-system-based disaster management support

14. In accordance with General Assembly resolution 63/90, the Scientific and Technical Subcommittee considered agenda item 8, "Space-system-based disaster management support".

15. At its […]th meeting, on […] February, the Subcommittee endorsed the report of the Working Group of the Whole (see annex I), including its consideration of and its recommendations on the item on space-system-based disaster management support.

16. The representatives of Austria, Burkina Faso, Canada, China, Germany, India, Iran (Islamic Republic of), Italy, Japan, Nigeria, Romania, South Africa, Switzerland, Ukraine, the United Kingdom of Great Britain and Northern Ireland and the United States of America made statements under the agenda item.

17. The Subcommittee heard the following scientific and technical presentations:

(a) "Satellite information as input for ILS-based decision-making support in the delivery of health services", by the representative of Germany;

(b) "Sentinel Asia: enhancing disaster management support capability from space", by the representative of Japan;

(c) "Space-technology-based disaster management support: the Indian experience", by the representative of India;

(d) "Introduction to the contributions of KIZUNA and KIKU No. 8 to disaster management", by the representative of Japan;

(e) "Space technology application for Wenchuan earthquake relief", by the representative of China;

(f) "Report on APRSAF-15", by the representative of Japan.

18. The Subcommittee had before it the report on the activities carried out in 2008 in the framework of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (A/AC.105/929) and the report of the Secretariat on outreach activities carried out in 2008 in the framework of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (A/AC.105/927).

19. At the 706th meeting of the Subcommittee, the Programme Coordinator for the United Nations Platform for Space-based Information for Disaster Management and

Emergency Response (UN-SPIDER) made a statement on the activities carried out in 2008 within the framework of UN-SPIDER and on the proposed UN-SPIDER workplan for the biennium 2010-2011 (A/AC.105/C.1/2009/CRP.8).

20. The Subcommittee noted with satisfaction the progress made with regard to the activities carried out within the framework of UN-SPIDER in 2008, including the establishment of the UN-SPIDER office in Bonn, Germany, and the progress made towards the objective of establishment of the UN-SPIDER office in Beijing in 2009.

21. The Subcommittee noted with satisfaction the level of extrabudgetary resources that had been made available by Member States in 2008, including cash contributions from Austria, the Czech Republic, Germany and Spain and in-kind contributions from Algeria, China, France, Iran (Islamic Republic of), Nigeria and the Republic of Korea. In-kind contributions from China went to supporting the implementation of activities assigned to the future UN-SPIDER office in Beijing.

22. The Subcommittee noted with appreciation that Austria, China, Croatia and Germany would be providing cash contributions for UN-SPIDER in 2009.

23. The Subcommittee noted that the Office for Outer Space Affairs was coordinating the establishment of regional support offices with Algeria (for North Africa), Iran (Islamic Republic of) (for Asia) and Nigeria (for West Africa) and that those regional support offices had already contributed significantly to a number of UN-SPIDER activities. The Subcommittee expressed its appreciation to Romania, South Africa and Ukraine for having offered to act as host to UN-SPIDER regional support offices and requested the Director of the Office for Outer Space Affairs to take advantage of those offers, taking into account the guidelines for selecting and setting up such regional support offices set by the General Assembly in its resolution 63/90.

24. The Subcommittee noted those activities and initiatives of member States which were contributing to increasing the availability and use of space-based solutions in support of disaster management, including the following: the Mesoamerican Regional Visualization and Monitoring System (SERVIR); the Famine Early Warning Systems Network (FEWSNET); GEONETCast, a satellite-based data dissemination system of almost global reach; the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also called the International Charter on Space and Major Disasters); activities carried out in the framework of the Global Monitoring for Environment and Security (GMES) initiative; the International Satellite System for Search and Rescue (COSPAS-SARSAT); the Sentinel Asia project; projects carried out in the framework of the Asia-Pacific Regional Space Agency Forum (APRSAF); the COSMO-SkyMed programme; disaster management tasks carried out in the framework of the Global Earth Observation System of Systems (GEOSS) initiative; and the work of the Committee on Earth Observation Satellites (CEOS), in particular its contribution to the Group on Earth Observations (GEO) work on the societal benefit area of disasters.

VII. Recent developments in global navigation satellite systems

25. In accordance with General Assembly resolution 63/90, the Scientific and Technical Subcommittee considered agenda item 9, "Recent developments in global navigation satellite systems". The Subcommittee reviewed issues related to the International Committee on Global Navigation Satellite Systems (ICG), the latest developments in the field of global navigation satellite systems (GNSS) and new GNSS applications.

26. The representatives of Canada, China, India, Italy, Japan, Mexico, the Russian Federation and the United States made statements under the agenda item.

27. The Subcommittee heard the following scientific and technical presentations:

(a) "Update on the Indian Satellite Navigation Programme", by the representative of India;

(b) "European Position Determination System (EUPOS): Central and Eastern European differential GNSS infrastructure and cooperation", by the representative of Germany;

(c) "YGNSS: the necessity of educating on the use and benefits of GNSS", by the representative of the Space General Advisory Council (SGAC).

28. The Subcommittee had before it the report of the Secretariat on activities carried out in 2008 in the framework of the workplan of ICG (A/AC.105/922).

29. The Subcommittee noted with appreciation that ICG had been established on a voluntary basis as a forum to promote cooperation, as appropriate, on matters of mutual interest to its members related to civil satellite-based positioning, navigation, timing and value-added services, as well as compatibility and interoperability of GNSS, while increasing their use to support sustainable development, particularly in developing countries.

30. The Subcommittee noted with satisfaction that ICG had held its third meeting in Pasadena, California, United States, from 8 to 12 December 2008 (A/AC.105/928).

31. The Subcommittee noted with appreciation that the fourth meeting of ICG would be held in St. Petersburg, Russian Federation, from 14 to 18 September 2009 and that the fifth meeting of ICG, to be held in 2010, would be hosted by Italy in cooperation with the European Commission.

32. The Subcommittee commended the support provided by the Office for Outer Space Affairs and agreed that it should continue to serve as the executive secretariat of ICG and its Providers' Forum.

33. The Subcommittee noted with appreciation that, since 2001, the United States had provided over 1 million United States dollars to the Office for Outer Space Affairs in support of GNSS-related activities, including regional workshops, and in support of ICG and the Providers' Forum.

34. Pursuant to General Assembly resolution 62/217, the Chairman of ICG and its Providers' Forum made a statement on the deliberations of ICG and the Forum.

35. The Subcommittee noted that each of the four working groups of ICG focused on one of the following issues: compatibility and interoperability; enhancement of the performance of GNSS services; information dissemination and capacity-building; and interaction with national and regional authorities and relevant international organizations. The Subcommittee also noted the substantive progress that had been made in developing the ICG workplan and terms of reference.

36. The Subcommittee noted that the Providers' Forum, which had been established to enhance the compatibility and interoperability of current and future regional and global navigation satellite systems, and whose membership currently included China, India, Japan, the Russian Federation and the United States, as well as the European Community, had held its third meeting in conjunction with the third meeting of ICG. The Subcommittee also noted that the Providers' Forum had adopted its own terms of reference and workplan.

37. In that regard, the Subcommittee noted that interoperability referred to the ability of global and regional systems and augmentations, and the services they provide, to be used together in order to strengthen the capabilities of users, who would otherwise have to rely solely on the open signals of one system. The Subcommittee also noted that compatibility referred to the ability of global and regional systems and augmentations to be used, separately or together, without causing unacceptable levels of interference and/or other harm to individual systems or services.

38. The Subcommittee noted that the Providers' Forum had agreed that, consistent with the principle of transparency in the provision of open services, each provider would strive to publish and disseminate all the signal and system information necessary to allow manufacturers to design and develop GNSS receivers on a non-discriminatory basis.

39. The Subcommittee noted with appreciation that ICG had decided that the regional centres for space science and technology education, affiliated to the United Nations, would act as ICG information centres and that ICG had agreed to establish task forces on geodetic and time references in order to promote progress in its workplan.

40. The Subcommittee noted that the ICG website (http://www.icgsecretariat.org) provided valuable information on the activities of ICG and the Providers' Forum.

41. The Subcommittee noted that the United States was committed to keeping the global positioning system (GPS) as a central pillar in any emerging international system of GNSS. The Subcommittee also noted that new applications for GPS were constantly being introduced and that the system had grown into a global utility providing space-based positioning, navigation and timing solutions.

42. The Subcommittee noted that the fleet of the Global Navigation Satellite System (GLONASS), operated by the Russian Federation, would increase from 19 to 24 operating satellites in 2010, and that a new generation of GLONASS-K satellites was scheduled to be launched to increase precision and operational capabilities. Those satellites would carry not only the existing frequency-division multiple access signals but also new code-division multiple access signals.

43. The Subcommittee noted that the Compass/BeiDou Navigation Satellite System (CNSS), operated by China, comprised five geostationary satellites and

30 non-geostationary satellites and that it was to become a global navigation satellite system. The Subcomittee noted that in April 2007 the first CNSS medium-Earth orbit (MEO) satellite, the COMPASS-M1, had been successfully launched and that three other satellites were planned to be launched in 2009.

44. The Subcommittee also noted that Italy was planning a series of satellite navigation projects that would increase safety in the transportation sector, including the introduction of services for air traffic control through the European Geostationary Navigation Overlay Service (EGNOS) and Galileo.

45. The Subcommittee noted that, while the GPS-aided Geostationary Augmented Navigation System was being implemented, the Indian Regional Navigation Satellite System, a regional system that would be built indigenously, would be capable of providing optimal position accuracy using a stand-alone satellite system and would comprise seven satellites: three in geostationary orbit and four in geosynchronous orbit.

46. The Subcommittee noted that Japan was promoting the Quasi-Zenith Satellite System (QZSS) and the Multi-functional Transport Satellite Satellite-based Augmentation System (MSAS), both of which were augmentation systems of GPS. QZSS, which consisted of satellites with highly inclined geosynchronous orbits, could transmit signals free from obstruction in urban and mountainous areas and, when used together with GPS, improved availability, enlarged the area of GPS usage and ensured more accurate positioning information.

47. The Subcommittee noted that the next generation of COSPAS-SARSAT, known as the Medium-Earth Orbit Search and Rescue (MEOSAR) system, was being developed and tested. The system would utilize search and rescue payloads on future global navigation satellites in MEO, such as GPS, GLONASS and Galileo, to improve coverage and the speed of detecting and locating 406 megahertz emergency distress beacons worldwide.