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**Committee on the Peaceful Uses of Outer Space Legal Subcommittee Fifty-fourth session** Vienna, 13-24 April 2015

## **Draft report**

## VIII. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space

1. Pursuant to General Assembly resolution 69/85, the Subcommittee considered agenda item 9, entitled "Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space", as a single issue/item for discussion.

2. The representatives of Canada, Mexico, the Netherlands, the Republic of Korea, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 9. The representative of Chile made a statement on behalf of the Group of 77 and China, and a statement on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

3. The Subcommittee recalled that the Safety Framework for Nuclear Power Source Applications in Outer Space (A/AC.105/934), adopted by the Scientific and Technical Subcommittee at its forty-sixth session, in 2009, and endorsed by the Committee at its fifty-second session, in 2009, had considerably advanced international cooperation in ensuring the safe use of nuclear power sources in outer space and had facilitated the development of international space law.

4. The Legal Subcommittee noted with satisfaction the extension of the multi-year workplan of the Working Group on the Use of Nuclear Power Sources in Outer Space to 2017 (A/AC.105/1065, annex II, para. 9).

5. Some delegations expressed the view that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in regulatory activity associated with the use of nuclear power sources in outer space and to adapt national legislation to relevant

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international standards. Those delegations were also of the view that Governments bore international responsibility for national activities involving the use of nuclear power sources in outer space conducted by governmental and non-governmental organizations and that such activities must be beneficial and not detrimental to humanity.

6. Some delegations expressed the view that the Principles Relevant to the Use of Nuclear Power Sources in Outer Space (General Assembly resolution 47/68) should be reviewed with a view to developing binding international standards to provide a legal framework for the use of nuclear power sources in outer space.

7. Some delegations expressed the view that revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space was not warranted.

8. Some delegations expressed the view that there should be greater coordination and interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to promote the development of a legally binding framework for the use of nuclear power sources in outer space.

9. Some delegations expressed the view that the Safety Framework for Nuclear Power Source Applications in Outer Space should be officially presented to the Legal Subcommittee for examination.

10. Some delegations expressed the view that appropriate interaction between the two Subcommittees was required in order to develop strategies, long-term planning and regulations related to the use of nuclear power sources in outer space, considering the recommendations included in the Safety Framework.

11. Some delegations expressed the view that more consideration should be given to the use of nuclear power sources in outer space, specifically in the geostationary orbit and lower atmosphere of the Earth, in order to address the legal aspects of the problem of potential collisions of nuclear-powered space objects in orbit, the incidents or emergencies that could be created by the accidental re-entry of such objects into the Earth's atmosphere and their impact on its surface, and the consequences for the health and lives of people and for the ecosystem.

12. Some delegations expressed the view that more attention should be paid to the legal issues associated with the use of satellite platforms with nuclear power sources in Earth orbits, including the geostationary orbit, in the light of reported failures and collisions that posed a high risk to humanity. Those delegations were also of the view that it was necessary to discuss the inclusion of new principles aimed at improving the provisions relating to the safety of the use of nuclear energy sources and their adaptation to new technologies, as well as to study in depth the use of such platforms with a view to promoting the development of legally binding rules.

13. Some delegations expressed the view that the use of nuclear power sources in outer space must be as limited as possible, and should be based on a thorough safety assessment to reduce the risk of accidental exposure of the public to harmful radiation or radioactive materials.

14. The view was expressed that the Principles Relevant to the Use of Nuclear Power Sources in Outer Space should be modified by deleting, from principle 3 (Guidelines and criteria for safe use), paragraphs 2 (a)(iii) and 3 (a), which referred to the use of nuclear reactors and radioisotope generators in Earth orbits.

15. The view was expressed that it was necessary to involve experts, industry, academia and the competent authorities in the development of standards relating to the use of nuclear power sources in outer space.

16. The view was expressed that the establishment of an independent nuclear safety review panel to regulate the use of nuclear power sources in outer space could be considered.

17. The view was expressed that the use of nuclear power sources in outer space should be allowed only in the case of deep space missions and only when other power sources had been considered and rejected.

18. The view was expressed that research should be conducted to find alternative power sources to replace the use of nuclear power sources in outer space.

## XI. Review of international mechanisms for cooperation in the peaceful exploration and use of outer space

19. Pursuant to General Assembly resolution 69/85, the Subcommittee considered agenda item 12, entitled "Review of international mechanisms for cooperation in the peaceful exploration and use of outer space", as an item under its five-year workplan (see A/AC.105/1003, para. 179). In accordance with the workplan, for 2015 the Subcommittee continued to conduct an exchange of information on the range of existing international space cooperation mechanisms.

20. The representatives of Algeria, China, France, Japan, Mexico, the Netherlands, the Republic of Korea and the United States made statements under agenda item 12. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

21. At its 896th meeting, on 13 April, the Subcommittee reconvened its Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space, under the chairmanship of Setsuko Aoki (Japan). At its [...] meeting, on [...] April 2015, the Subcommittee endorsed the report of the Chair of the Working Group, contained in annex III to the present report.

22. The Subcommittee had before it the following documents:

(a) Note by the Secretariat on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing information received from Japan and Spain (A/AC.105/C.2/107);

(b) Conference room paper on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing information received from Austria (A/AC.105/C.2/2015/CRP.14);

(c) Conference room paper containing a note by the Secretariat on the categorization of international mechanisms for cooperation in the peaceful exploration and use of outer space (A/AC.105/C.2/2015/CRP.15).

23. The Subcommittee heard the following presentations:

(a) "Japan Aerospace Exploration Agency (JAXA) examples of international mechanisms for cooperation in the peaceful exploration and use of outer space", by the representative of Japan;

(b) "The need for an international approach and framework for new, developing activities below 200 km", by the observer for IAASS.

24. The Subcommittee noted the breadth, diversity and important elements of the mechanisms utilized in space cooperation, including legally binding multilateral and bilateral agreements; memorandums of understanding; non-legally binding arrangements, principles and technical guidelines; multilateral coordination mechanisms through which space system operators coordinated the development of applications of space systems for the benefit of the environment, human security and welfare, and development; and a variety of international and regional forums, including the African Leadership Conference on Space Science and Technology for Sustainable Development, the Asia-Pacific Regional Space Agency Forum, APSCO, ESA and the Space Conference of the Americas.

25. The view was expressed that the Subcommittee should play a positive role in fostering international cooperation so as to strengthen the design of the system of international cooperation and develop an effective and practical cooperative mechanism for the purpose of safeguarding peace, security and the rule of law in outer space.

26. The view was expressed that international initiatives for cooperation on specific aspects of the exploration and use of outer space, such as Earth observation and global navigation, were conceived for the purpose of uniting different space actors so as to maximize synergies, thereby fostering information-sharing and promoting the use of space applications and services, including in developing countries.

27. Some delegations expressed the view that it would be important to give consideration, as appropriate, to possible ways to enable knowledge and technology transfer, capacity-building and other means of cooperation so that more countries and people would be able to gain access to outer space for the benefit of their welfare and socioeconomic conditions.

28. The view was expressed that international space cooperation should be based on the concept of inclusive development, which would enable all States, regardless of the level of their economic development, to enjoy benefits derived from the use of space applications.

29. The view was expressed that the mechanisms for international space cooperation and the enhancement of the rule of law in outer space had been shown, in practice, to be complementary in nature: international cooperation served as an important means for advancing the rule of law in outer space, while the rule of law provided an effective institutional guarantee of international cooperation. The delegation expressing that view was also of the view that the Legal Subcommittee should play a leading role in that context, actively seeking workable cooperation mechanisms, as well as taking stock of them, to ensure the effective implementation of principles on international cooperation.

30. Some delegations expressed the view that international cooperation would continue to be a necessary basis for dealing with new challenges, such as ensuring the long-term sustainability of space activities and promoting peace and security so as to enable the sustainable development of all countries.

31. The Subcommittee agreed that the review of the mechanisms for cooperation in space activities would continue to assist States in understanding the different approaches to cooperation in space activities and would contribute to the further strengthening of international cooperation in the exploration and peaceful uses of outer space. In that regard, the Subcommittee reiterated that 2017, which, under its workplan was the final year of consideration of this agenda item, would be the fiftieth anniversary of the Outer Space Treaty.