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Matters relating to the definition and delimitation of outer space

Analytical summary of the replies to the questionnaire on possible legal issues with regard to aerospace objects

Note by the Secretariat

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* A/AC.105/C.2/L.253.



I. Introduction

1. At the forty-second session of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space, in 2003, the Working Group on Matters Relating to the Definition and Delimitation of Outer Space agreed that the Subcommittee could continue its consideration of the analytical summary at its forty-fourth session and that, in order to enhance its contents, Member States that had not yet replied to the questionnaire on aerospace objects should be invited to do so. That would ensure that the summary contained information from a large and more representative number of States.
2. By 14 January 2005, five additional replies had been received, from Finland, Portugal, Rwanda, Turkey and Ukraine.
3. The present summary synthesizes the replies received from Member States after the forty-third session of the Legal Subcommittee (A/AC.105/635/Add.11). Only those elements of the replies which are novel or distinct from the replies received before January 2004 and contained in A/AC.105/C.2/L.249 are synthesized in the summary.

II. Analytical summary of the replies to the questionnaire on possible legal issues with regard to aerospace objects

Question 1. Can an aerospace object be defined as an object which is capable both of travelling through outer space and of using its aerodynamic properties to remain in airspace for a certain period of time?

4. The following Member States submitted replies to question 1: Finland, Portugal, Rwanda, Turkey and Ukraine.
5. The following additional comments and recommendations regarding the definition were made:
 - (a) The definition fails to distinguish an aerospace object from other objects such as meteorites; an aerospace object can be subject to human control at any altitude with regard to its direction and speed;
 - (b) The definition could be accepted if “aerospace object” was replaced with “aerospace vehicle” or “aerospace craft”, and the expression “to remain in outer space for a certain period of time” was replaced with “to travel through airspace”;
 - (c) The definition should be established in consultation with the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space.
6. The view was expressed that the definition could not be accepted since “aerospace vehicle” was just one of the “aerospace objects” and that “aerospace object” could not be defined as having the aforesaid properties, as the term “aerospace objects” could include aerospace signals, natural cosmic particles that enter the Earth’s atmosphere, a defunct aerospace vehicle, robots, products resulting

from the joint application of space technology and Earth science (aerospace product), and even aerospace infrastructure.

Question 2. Does the regime applicable to the flight of aerospace objects differ according to whether it is located in airspace or outer space?

7. The following Member States submitted replies to question 2: Finland, Portugal, Rwanda, Turkey and Ukraine.

8. The view was expressed that the regime applicable to the flight of aerospace objects did not differ according to whether they were located in airspace or outer space. That view was based on the following: space objects are governed by the principles set out in the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (General Assembly resolution 2222 (XXI), annex) (Outer Space Treaty), in accordance with which they are subject to the customary rule that establishes the right to innocent (free and peaceful) passage.

9. The view was expressed that, owing to the importance of clarifying the regime applicable to innocent passage through airspace, relevant international norms should be formulated and clarified as a matter of urgency and based on the model provided by the law applicable to innocent passage through territorial waters.

Question 3. Are there special procedures for aerospace objects, considering the diversity of their functional characteristics, the aerodynamic properties and space technologies used and their design features, or should a single or unified regime be developed for such objects?

10. The following Member States submitted replies to question 3: Finland, Portugal, Rwanda, Turkey and Ukraine.

11. The view was expressed that the development of a new regime would be viable only when airspace and outer space were demarcated.

12. The view was expressed that it was crucial to carry out an in-depth study of the characteristics of space objects from a technical perspective, since the differences in their technological features might call for the adoption of different criteria.

Question 4. Are aerospace objects while in airspace considered as aircraft, and while in outer space as spacecraft, with all the legal consequences that follow therefrom, or does either air law or space law prevail during the flight of an aerospace craft, depending on the destination of such a flight?

13. The following Member States submitted replies to question 4: Finland, Portugal, Rwanda, Turkey and Ukraine.

14. The view was expressed that a “destination-based” approach would be possible if air and space law were adequately adapted to meet the requirements of aerospace craft and if both the domains were clearly demarcated.

15. The view was expressed that an aerospace object passing through the airspace of a State would be subject to the jurisdiction of that State and that, while in outer space, such an object would be subject to space law, that is, it would fall within the jurisdiction of the State where it was registered.

16. The view was expressed that during flight, aerospace objects might be considered to fall within the scope of international space law or international air law, depending on the purpose of the mission. The development of aerospace technology might necessitate the amendment of prevailing norms of international air and space law.

Question 5. Are the take-off and landing phases specially distinguished in the regime for an aerospace object as involving a different degree of regulation from entry into airspace from outer space orbit and subsequent return to that orbit?

17. The following Member States submitted replies to question 5: Finland, Portugal, Rwanda, Turkey and Ukraine.

18. The view was expressed that although take-off and landing phases were distinguished, except for the purpose of clarifying the regime governing the flight of aerospace objects (in accordance with the principle of freedom and of the peaceful use of outer space as established in the Outer Space Treaty), the two phases did not need to be considered subject to different legal regimes, since the distinction was of a technical nature. However, the two phases should be subject to space law rather than air law.

19. The view was expressed that all phases of Earth-to-orbit missions should be fully subject to space law. The regime of air law should apply to craft that temporarily entered outer space during Earth-to-Earth missions to transport materials or persons.

Question 6. Are the norms of national and international air law applicable to an aerospace object of one State while it is in the airspace of another State?

20. The following Member States submitted replies to question 6: Finland, Portugal, Rwanda, Turkey and Ukraine.

21. Some States agreed that the norms of national and international air law would be applicable to an aerospace object of one State while it was in the airspace of another State. Those States also noted the following:

(a) Considering the diverse jurisprudential basis of air law and space law, the range of its applicability should be rationally determined. The most crucial would be the principles of national sovereignty over airspace and freedom in outer space activities. In addition, principles of liability, State responsibility, criminality and so on would require consideration;

(b) The norms of national and international air law would apply only during Earth-to-Earth missions of aerospace objects, but not to aerospace objects that were intended for the exploration and use of outer space;

(c) If an aerospace object were located in the airspace of a State, it would be subject to the jurisdiction of that State, whereas if it were located in international airspace, the principle of nationality would apply, that is, the jurisdiction of the State where the object was registered.

22. The view was expressed that the destination of the flight was an important factor in answering that question. If the aerospace object was simply in transit between Earth and outer space, international space law should apply. However, it was important to consider problems arising in relation to the security of the State over which the aerospace object would pass or in which it would take off or land. In order to ensure that the norms of international law reflected such issues, while taking into account the principle of free passage, it would therefore be necessary to negotiate and conclude international agreements in order to guarantee the rights of States in relation to security, environmental protection and pollution.

Question 7. Are there precedents with respect to the passage of aerospace objects during take-off and/or re-entry into the Earth's atmosphere, and does customary international law exist with respect to such passage?

23. The following Member States submitted replies to question 7: Finland, Portugal, Rwanda, Turkey and Ukraine.

24. The view was expressed that customary law provided for innocent and free passage. However, it was important, taking into account issues arising from such a passage, to consider the possibility of amending the Convention on International Liability for Damage Caused by Space Objects (General Assembly resolution 2777 (XXVI), annex), with a view to clarifying the provisions governing liability for damage resulting from lawful activities.

25. The view was expressed that, despite the absence of international customary law with respect to the passage of an “aerospace vehicle”, for a “space object” there were principles with regard to the rescue of astronauts, assistance, return of space objects, mutual assistance and cooperation in the peaceful uses and exploration of outer space, good neighbourliness and absolute liability for the damage caused.

Question 8. Are there any national and/or international legal norms with respect to the passage of aerospace objects during take-off and/or re-entry into the Earth’s atmosphere?

26. The following Member States submitted replies to question 8: Finland, Portugal, Rwanda, Turkey and Ukraine.

27. The view was expressed that the relevant international legal norms were set out in the United Nations treaties on outer space.

Question 9. Are the rules concerning the registration of objects launched into outer space applicable to aerospace objects?

28. The following Member States submitted replies to question 9: Finland, Portugal, Rwanda, Turkey and Ukraine.

29. The view was expressed that the rules concerning the registration of objects launched into outer space could not be applied as such to aerospace vehicles. In air law, registration determined the nationality of the craft and was vital for all subsequent civil, commercial and criminal claims. In space law, registration determined the exercise of jurisdiction, control and liability.

Question 10. What are the differences between the legal regimes of airspace and outer space?

30. The following Member States submitted replies to question 10: Portugal, Rwanda, Turkey and Ukraine.¹

31. States did not present views differing from those already reflected in the analytical summary of the replies to the questionnaire on possible legal issues with regard to aerospace objects (A/AC.105/C.2/L.249).

Notes

¹ Question 10 was introduced by the Working Group on the Definition and Delimitation of Outer Space at the forty-first session of the Legal Subcommittee. Only States that had submitted replies to the questionnaire on aerospace objects after 2002 addressed the question.