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# COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

# QUESTIONNAIRE ON POSSIBLE LEGAL ISSUES WITH REGARD TO AEROSPACE OBJECTS: REPLIES FROM MEMBER STATES

## Note by the Secretariat

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<sup>\*</sup> Replies received from Argentina and India.

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#### INTRODUCTION

- 1. At its thirty-eighth session, the Committee on the Peaceful Uses of Outer Space noted that, at the thirty-fourth session of the Legal Subcommittee, the working group of the Subcommittee on agenda item 4, on matters relating to the definition and delimitation of outer space and to the character and utilization of the geostationary orbit, had finalized the text of a questionnaire on possible legal issues with regard to aerospace objects. The Committee agreed with the Legal Subcommittee (A/AC.105/607 and Corr.1, para. 38) that the purpose of the questionnaire was to seek the preliminary views of States members of the Committee on various issues relating to aerospace objects. The Committee also agreed that the replies to the questionnaire could provide a basis for the Legal Subcommittee to decide how it might continue its consideration of agenda item 4. The Committee further agreed with the Subcommittee that States members of the Committee should be invited to give their opinions on those matters.<sup>1</sup>
- 2. The Secretary-General addressed a note verbale dated 21 August 1995 to all Member States of the Committee on the Peaceful Uses of Outer Space inviting them to communicate to the Secretariat the information requested above in order for the Secretariat to prepare a report containing the information for submission to the Legal Subcommittee.
- 3. Information received from Member States by 15 February 1996 is contained in document A/AC.105/635 and information received by 15 March 1996 is contained in A/AC.105/635/Add.1. Information received by 18 March 1996 is contained in A/AC.105/635/Add.2.
- 4. At its thirty-ninth session, the Committee agreed with the recommendations of the working group on agenda item 4, endorsed by the Legal Subcommittee at its thirty-fifty session (A/AC.105/639, para. 35), that the Secretariat should encourage those States members of the Committee who wished to submit replies to the questionnaire to do so as early as possible.<sup>2</sup>
- 5. In reply to a note verbale from the Secretary-General dated 16 July 1996, document A/AC.105/635/Add.3 was prepared by the Secretariat on the basis of information received from Member States by 30 November 1996.
- 6. The present document was prepared by the Secretariat on the basis of information received from Member States by 1 April 1997.

## Notes

<sup>1</sup> See Official Records of the General Assembly, Fiftieth Session, Supplement No. 20 (A/50/20), para. 117.

<sup>2</sup> See Official Records of the General Assembly, Fifty-first Session, Supplement No. 20 (A/51/20), para. 128.

## REPLIES RECEIVED FROM MEMBER STATES\*

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?

## Argentina

It is assumed that where question 1 refers to an "objeto espacial" ("space object"), it should in fact read "objeto aeroespacial" ("aerospace object"), as indicated in document A/AC.105/635/Add.2.

Thus, with regard to the definition of an "aerospace object" 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", the following comments may be made:

- (a) The phrase "sea capaz" ("is capable") should be replaced by "sea apto", since this is a legally more correct expression;
- (b) The phrase "mantenerse en el espacio aéreo" ("to remain in airspace") should be replaced by "circular por el espacio aéreo" ("to move through airspace"), since it is this latter capability—that of moving— which for "aerospace objects" entails different legal consequences from those to which "space objects" give rise;
  - (c) The phrase "for a certain period of time" should be deleted since it leads to confusion.

The following definition could thus, in principle, be given:

"An aerospace object is an object which is capable both of travelling through outer space and of using its aerodynamic properties to move through airspace."

It should be pointed out that this definition may possibly be appropriate only for initiating the study of this issue, since advances in technology may quickly render it obsolete. However, basing the definition solely on the dual capability of moving through airspace and of travelling through outer space may make the definition too broad and thus encompass a large number of objects which, by reason of other specific characteristics, might require a separate regime.

## India

Yes, in case the flight through airspace is independent of and is not merely part of its direct launch into outer space or its return to the Earth's atmosphere for landing as a single continuous journey.

<sup>\*</sup> The replies are reproduced in the form in which they were received.

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

## Argentina

The following comments should be made before this question is answered:

- (a) In outer space, objects do not "fly" but rather "travel";
- (b) The term "trayectoria" ("trajectory") applies to the movement resulting when an object is given over to the action of natural forces, even if the initial impulse stemmed from human action, and this term should therefore be used for space objects in connection with launching, orbiting and re-entry activities. This is important since the "right of trajectory" is regulated by the international treaties relating to outer space;
- (c) In the case of aerospace objects, the term "itinerario" ("route") should be used when their movement is the result of direct action from human activity which alters the movement which they would naturally have had if they had not been subjected to control and guidance.

Taking into consideration current international law and advances in technology, the general principle could be that:

- (a) Air law applies to aerospace objects moving through airspace;
- (b) Space law applies to aerospace objects travelling through outer space.

Nevertheless, owing to the technical characteristics which aerospace objects may have, and bearing in mind the legal interests that are protected by each of these branches of law, consideration should be given to the possibility of establishing a special regime that takes account of the special characteristics of such objects (which distinguish them from the objects for which both air law and space law were established) and of the developments which technology in this field may undergo in the future.

#### India

Where an aerospace object operates in areas subject to the jurisdiction of a State, it is subject to the laws of that State and international air law. However, if its passage through the airspace of another State is part of its direct passage to or from outer space on launch or return for landing, and is only incidental thereto, it would be subject to the law relating to outer space.

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?

#### Argentina

At the present time, no special procedures exist for aerospace objects. As stated in reply to question 2, the existing norms of air law and space law could—in the light of current technology advancement and international law—be applied to aerospace objects. Nevertheless, it would be necessary to conduct an in-depth study into the necessity of elaborating a new regime for such objects, since advances in aerospace technology may mean that in the

future a specific regime will need to be established that takes account of situations not provided for under current international air and space law.

#### India

As aerospace objects may operate both in areas subject to national jurisdictions and in areas beyond national jurisdiction (i.e. in outer space), they may be subject to different legal regimes depending upon the area of their operation. A unified regime is, however, required for the identification of aerospace objects and to clarify their legal status, taking into account the rules regarding territorial sovereignty of States.

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?

## Argentina

Having regard to current international law and advances in technology, the general principle could be that aerospace objects moving through airspace may be considered to be aircraft, and that if they travel through outer space they may be considered to be spacecraft. Nevertheless, bearing in mind technology advancement and the wide range of objects that can be encompassed by the given definition of an "aerospace object", the possibility of elaborating a special regime should be explored.

### India

Yes. Aerospace objects while in airspace are considered as aircraft, and while in outer space as spacecraft with all the legal consequences that follow therefrom, provided that, as regards questions of safety and liability, the higher standards should apply. However, where the passage through airspace is part of a direct and continuous journey to or from outer space, the object shall be considered as a spacecraft.

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?

## Argentina

If, as stated in reply to question 4, an aerospace object moving through airspace is considered to be an aircraft, both take-off and landing will be regulated by the norms of air law, since air law regulates the technical act of air navigation. Should a special regime be established for aerospace objects, account would have to be taken of the technical characteristics of take-off and landing of the various types of aerospace objects (attention is again drawn to the remarks made in reply to question 1 concerning the scope of the definition) in order to be able to determine whether a single regime is appropriate or whether different norms should be applied to these two phases, depending on whether or not there is motion through airspace.

#### India

Yes, particularly in the case of an aerospace object which is capable of take-off and flight as an aircraft, and during its flight in airspace can launch itself into outer space and then operate as a spacecraft. Similarly in the case of an object launched into outer space which, after re-entry into the Earth's atmosphere, can operate independently as an aircraft and thereby delay its landing.

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?

## Argentina

The reply is in the affirmative since, as has been stated in the previous replies, it is considered appropriate for the moment that an aerospace object moving through airspace should be regarded as an aircraft, and air law is consequently applied to it. If, however, there was no technical act of motion, it would not be necessary to apply air law.

#### India

Yes, the norms of national and international air law are applicable to an aerospace object of one State while it is in the airspace of another State, unless its entry into such airspace is only incidental to its direct take-off or landing.

Question 7: Are there precedents with respect to the passage of aerospace objects after re-entry into the Earth's atmosphere and does international customary law exist with respect to such passage?

#### Argentina

No precedents are believed to exist with respect to the passage of aerospace objects after re-entry into the Earth's atmosphere in so far as the Space Shuttle might not be regarded as an "aerospace object", since it is not strictly capable of motion through airspace. However, even if it is regarded as such and there are isolated precedents, no customary law can be regarded as being applicable in respect of such objects, since the two aspects on which customary law is established—namely the repetition of conduct and the general acceptance of what is claimed to be the customary norm—are lacking.

#### India

After re-entry into the Earth's atmosphere, aerospace objects may pass through the airspace of several States before landing. There are no specific rules governing such passage, and to date no State has sought to exercise jurisdiction over spacecraft of another State during such passage.

Question 8: Are there any national and/or international legal norms with respect to the passage of space objects after re-entry into the Earth's atmosphere?

## Argentina

If aerospace objects moving through airspace are considered to be aircraft and are consequently governed by air law, it is the norms of air law that have to be applied to them after re-entry into the Earth's atmosphere.

Nevertheless, attention is again drawn to the need for a detailed study of the issue to be carried out with a view to developing a set of norms that take account of the complexity characterizing aerospace objects, which means that the sole application of air law and also the sole application of space law may not adequately take account of all situations that may arise.

#### India

No specific national and/or international legal norms with respect to the passage of space objects after re-entry into the Earth's atmosphere have so far been developed.

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

## Argentina

No legal objections of substance that prevent the same rules concerning the registration of objects launched into outer space from being applied to aerospace objects are—for the moment—believed to exist. Nevertheless, as has been stated in previous answers, provision should be made for the possibility of elaborating—in keeping with advances in aerospace technology—a specific regime for such objects.

## India

Yes. Aerospace objects are subject to the rules concerning the registration of objects launched into outer space. Further, such objects would also be subject to the rules concerning registration of aircraft in case they are capable of and are used for independent flight in airspace.