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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**

### **Addendum**

### **Note by the Secretariat\***

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\* The present document was prepared on the basis of replies received from Member States after 7 May 2003.



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## II. Replies received from Member States\*

### Introductory note

#### Madagascar

[Original: French]

Madagascar is not yet a manufacturer or an operator of aerospace objects and as a result does not have any space law or regulations regarding space objects. Where the current civil aviation laws and regulations of Madagascar do not contain texts specifically referring to the subject, reference is made to the relevant provisions of the International Civil Aviation Organization.

### **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?**

#### Benin

[Original: French]

An aerospace object is an object that is capable both of travelling through outer space and of using its aerodynamic properties to remain in outer space for a certain period of time. An object may be designated an aerospace object only if it is designed for exploitation in outer space, which should enjoy the same status as the high seas.

#### Brazil

[Original: English]

The proposed definition is only applicable to the Space Shuttle, whose main objective is flight in outer space. The following definition is suggested: "An aerospace object is an object capable of flying either in outer space or in airspace and it is also capable of carrying out activities in both environments."

#### Chile

[Original: Spanish]

Although the suggested definition clearly excludes objects of natural origin, it should nevertheless be specified that an "aerospace object" is an object designed to operate in outer space that, by virtue of its aerodynamic properties, only travels through airspace for the purpose of reaching outer space or of returning to Earth. It would be more accurate to speak of a "spacecraft" or "space vehicle", terms that denote a man-made device, in order to distinguish such an object from an "aerospace object", which could also refer to a natural object.

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\* The replies are reproduced in the form in which they were received.

**Costa Rica**

[Original: Spanish]

The problem is that there are objects today that are capable of travelling through both airspace and outer space.

**Fiji**

[Original: English]

The definition of “aerospace object” is acceptable as it refers to an object that is capable of travelling through outer space and using aerodynamic properties to remain in airspace for a certain period of time. The Space Shuttle of the United States of America is a good example of this kind of object. During its missions it travels through airspace (space below the atmosphere) and remains there for a certain period of time before entering outer space (space above the atmosphere).

**Madagascar**

[Original: French]

No, this definition is too restricted, since there are aerospace objects whose aerodynamic properties are not sufficient for them to remain in airspace.

**Yemen**

[Original: English]

Yes.

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

**Benin**

[Original: French]

The regime applicable to the flight of aerospace objects does not differ according to whether the object is located in airspace or outer space, but is determined by the nature of the activity (which should be regulated by a convention or other agreement) rather than by the status of the space in which the object is located at any given time.

**Brazil**

[Original: English]

Yes, there is a difference in the applicable regime. If an aerospace object undertakes any space activity during its flight in outer space it is subject to the United Nations treaties on outer space. In the same way, an aerospace object is subject to air law during its flight in airspace.

**Chile**

[Original: Spanish]

In accordance with air law, the State of Chile has exclusive sovereignty over the airspace above its territory; thus, if the aerospace object is travelling in Chilean airspace, the air regulations in force, in particular those related to air safety, must be those of Chile. Nevertheless, air law should provide for special, appropriate norms for cases where passage is obligatory and the sole objective is to reach outer space.

**Costa Rica**

[Original: Spanish]

Rather than formulating a regime for which the regulated subject is linked to the flight of the object or the place in which it travels, it is better to consider the object as such in terms of its purpose and function.

**Fiji**

[Original: English]

The two differ. It can be interpreted that an aerospace object flies in airspace but travels in outer space. According to article 1 of the Convention on International Civil Aviation<sup>1</sup> of 1944 (the “Chicago Convention”), every State has complete and exclusive sovereignty over the airspace above its territory. At the same time, outer space is not subject to national appropriation and no single State has sovereignty over it. Therefore, aerospace objects that operate within airspace are covered by international air law and those which operate in outer space should come under the jurisdiction of international space law.

**Madagascar**

[Original: French]

Since Madagascar does not have any space regulations, it has no provisions for different space flight regimes.

**Yemen**

[Original: English]

No, as these objects are above aerospace and outer space over the territorial lands and waters of any State.

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<sup>1</sup> United Nations, *Treaty Series*, vol. 15, No. 102.

**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?**

**Benin**

[Original: French]

There do not appear to be any special procedures. The obligations of States conducting activities in outer space are identical, irrespective of the nature of the aerospace object concerned. From the reply of Cameroon to Question 2, it may be deduced that a single regime is the most appropriate form, offering homogeneity in the regimes applicable and simplicity with regard to the status of space objects.

**Brazil**

[Original: English]

It seems that the best solution is to improve the existing legal framework instead of creating a unique and unified regime. The concepts of “free passage” or “innocent passage”, for instance, should be included in space law and improved in air law; speed patterns for flights in airspace should also be revised.

**Chile**

[Original: Spanish]

In the interests of legal certainty, a unified regime is considered to be the most appropriate.

**Costa Rica**

[Original: Spanish]

Yes, a unified regime should be established for this type of object and for determining liability for damage caused to third parties.

**Fiji**

[Original: English]

As far as is known, there are no special procedures for aerospace objects. Because of its functional characteristics, aerodynamics, design and so forth, there is a possibility that an aerospace object, while entering the atmosphere after performing a mission, may enter the airspace of another sovereign State. It is therefore important that an international legal system be put in place to provide legal procedures for aerospace objects.

**Madagascar**

[Original: French]

Madagascar has no special procedures for aerospace objects since it does not have any space regulations.

**Yemen**

[Original: English]

A unified regime should be developed.

**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?**

**Benin**

[Original: French]

No. Aerospace objects should not be regarded as aircraft while remaining in airspace. The original destination of the object should be the decisive factor in determining whether an object should be designated an aerospace object or an aircraft. Once the obligation of information has been respected, the destination of the flight should not enter into account.

**Brazil**

[Original: English]

When an aerospace object undertakes activities in outer space it is subject to space law; when it undertakes activities in airspace it is subject to air law.

**Chile**

[Original: Spanish]

The relevant rules of air law should be applied during the journey in airspace in order to maintain the sovereignty and safety of aircraft using the same airspace. However, the way in which these rules are applied will differ according to the nature of the space object. In other words, air law should provide for special norms governing the flight of space objects travelling through airspace in order to reach outer space.

**Costa Rica**

[Original: Spanish]

Only one regime should be established for the entire flight, with clearly defined consequences taking into account the purpose of the object and its final destination rather than taking as the point of reference the physical space through which it travels.

**Fiji**

[Original: English]

Technologically, an aircraft is different from a spacecraft, given the fact that they have different launching styles and so forth. Current international air law should prevail while the spacecraft operates within airspace. However, it is

important that an international legal system be developed by the Office of Outer Space Affairs of the Secretariat for such objects while operating in outer space.

**Madagascar**

[Original: French]

Since no appropriate regulations exist, no. An object is either always an aircraft or it is not an aircraft. However, if an aerospace object in airspace presented all the characteristics of an aircraft, it could be treated as such.

**Yemen**

[Original: English]

The applicability of air law or space law would depend on the destination of such a flight.

**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?**

**Benin**

[Original: French]

If the aim is one of simplification of the regime, there is no need to make special provision for the take-off and landing phases.

**Brazil**

[Original: English]

The take-off and landing of an aerospace object are considered to be distinguishable phases, so both space law and air law should dedicate special attention to such phases. For instance, the concepts of “free passage”, “innocent passage” and “speed patterns” should be considered.

**Chile**

[Original: Spanish]

Yes, the norms should be uniform and consistent with the nature of space objects, whose characteristics and objectives are different from those of aircraft.

**Costa Rica**

[Original: Spanish]

In Costa Rica, the regime established by the Chicago Convention applies to activities in airspace. There is no regime applicable to aerospace objects.



**Fiji**

[Original: English]

The current regime does not distinguish an aerospace object as involving several degrees of regulation, when entering airspace from orbit or returning to orbit. The driving factor here is speed of entrance into orbit and return.

**Madagascar**

[Original: French]

No reply can be given as no appropriate regulations exist.

**Yemen**

[Original: English]

No.

**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?****Benin**

[Original: French]

Only the rules of international law should be applicable.

**Brazil**

[Original: English]

Yes. This question shows the importance of delimiting airspace from outer space. Since a State has sovereignty over its airspace, its national air law is applicable to an aerospace object of another State. In such situations, authorization for the passage of an aerospace object of one State through the airspace of another State should be required.

**Chile**

[Original: Spanish]

Yes, although the applicable norms should be special norms consistent with the nature of space objects, whose characteristics and objectives are different from those of aircraft.

**Costa Rica**

[Original: Spanish]

Costa Rica considers that the best approach is one based on respect for the airspace of each State, so that in this case it would be appropriate to apply national air law.

**Fiji**

[Original: English]

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. The sovereignty of airspace is important and must be respected.

**Madagascar**

[Original: French]

In the absence of appropriate regulations, the event would be treated on a case-by-case basis.

**Yemen**

[Original: English]

No.

**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 international customary law exist with respect to such passage?**

**Benin**

[Original: French]

There are known precedents, such as the return of the Russian Federation's Mir space station, and customary law exists with regard to such passage.

**Brazil**

[Original: English]

Precedents with respect to the passage of aerospace objects during take-off and/or re-entry into the Earth's atmosphere are unknown. There is no international customary law with respect to such passage. The Convention on International Liability for Damage Caused by Space Objects of 1972 (General Assembly resolution 2777 (XXVI), annex, the "Liability Convention"), for instance, is only applicable to space objects.

**Chile**

[Original: Spanish]

Although it may be considered that precedents exist, that is, the Space Shuttle, there is insufficient international experience to be able to speak of a set of regulations with respect to such passage.

**Costa Rica**

[Original: Spanish]

There are no precedents with respect to the passage of aerospace objects during take-off and/or re-entry into the Earth's atmosphere. If there are any

provisions of international customary law with respect to such passage, Costa Rica is unaware of them.

#### **Fiji**

[Original: English]

Some precedents were set by United States airspace craft in the past. International customary law for the passage of airspace craft does not exist. Therefore, it is important for such passage to be covered in customary law to remove any misunderstanding about which law is applicable.

#### **Madagascar**

[Original: French]

As far as is known, there are no such precedents or international customary law.

#### **Yemen**

[Original: English]

No.

### **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?**

#### **Benin**

[Original: French]

Matters relating to the exploration and use of outer space are regulated by the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space of 1963 (General Assembly resolution 1962 (XVIII)) and the four treaties on space law concluded between 1968 and 1979 under the aegis of the United Nations, namely, the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (resolution 2345 (XXII), annex, the "Rescue Agreement"), the Liability Convention, the Convention on Registration of Objects Launched into Outer Space (resolution 3235 (XXIX), annex, the "Registration Convention") and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the "Moon Agreement", resolution 34/68, annex).

#### **Brazil**

[Original: English]

There is no reference to aerospace objects in Brazilian law.

#### **Chile**

[Original: Spanish]

Although there are no specific norms, national airspace should be considered to be under the sovereignty of the State of Chile, and there are a number of air safety norms that could be applicable.

**Costa Rica**

[Original: Spanish]

Such passage is not regulated by the domestic law of Costa Rica, but there are various international norms that regulate matters related to the use of outer space, including the following:

- (a) 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, the “Outer Space Treaty”);
- (b) The Rescue Agreement;
- (c) The Liability Convention.

**Fiji**

[Original: English]

In Fiji there are no legal norms (national/international) in respect of the passage of aerospace objects during take-off and/or re-entry into the Earth’s atmosphere.

**Madagascar**

[Original: French]

In the absence of relevant national regulations, the answer is “no” as regards national legal norms.

**Yemen**

[Original: English]

No.

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

**Benin**

[Original: French]

Yes, the rules governing the registration of objects launched into outer space are applicable to aerospace objects.

**Brazil**

[Original: English]

If an aerospace object undertakes activities either in outer space or in airspace, it should be registered according to space law and/or air law.

**Chile**

[Original: Spanish]

They may be compatible, given their similarity, and it might also be preferable to have a single register for such objects.

**Costa Rica**

[Original: Spanish]

This has been the case until now, certainly, but the problem here is that in this area and many other similar areas practical reality and scientific and technological research move ahead at a far swifter pace than legal norms, which means that new ways of regulating these issues need to be explored.

**Fiji**

[Original: English]

Yes, aerospace objects are subject to rules concerning registration of objects launched into outer space.

**Madagascar**

[Original: French]

No relevant regulations exist in air law.

**Yemen**

[Original: English]

No.

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

**Benin**

[Original: French]

The fundamental difference between the legal regimes of airspace and outer space relates to the appropriation of the former, with the exclusive exercise of national sovereignty within the territorial boundaries of States, and the absence of appropriation of the latter, which justifies internationalization.

**Brazil**

[Original: English]

The difference is fundamental. Outer space is not subject to State sovereignty, while airspace is.

**Costa Rica**

[Original: Spanish]

1. The difference between these two legal regimes derives from their foundation, namely, that the foundation of the regime governing airspace is the sovereignty of individual States over their airspace, as established by article 1 of the Chicago Convention, which states as follows:

“Sovereignty

“The contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory.”

2. The foundation of space law, on the other hand, resides in the principles of freedom of scientific investigation in outer space and the non-appropriation of celestial bodies.

**Fiji**

[Original: English]

The airspace regimes are covered by international space law and standards set by the International Civil Aviation Organization. Outer space law is yet to be established to form the legal base for use of this space. Outer space law should be prepared by the Office for Outer Space Affairs of the Secretariat to cater for aerospace objects so that they can be differentiated from normal aircraft (fighter planes or commercial planes).

**Madagascar**

[Original: French]

No comparison is possible in the absence of a legal regime for outer space.

**Yemen**

[Original: English]

In accordance with the Civil Aviation Law of Yemen, the Republic's territory means the territorial lands and waters that are under the sovereignty of the Government, as well as the air and outer space that are above those territorial lands and waters.

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