



General Assembly

Distr.: General
13 January 2003

Original: English, French and
Spanish

**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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I. Introduction

1. At its thirty-eighth session, the Committee on the Peaceful Uses of Outer Space agreed that the purpose of the questionnaire on possible legal issues with regard to aerospace objects, finalized at the thirty-fourth session of the Legal Subcommittee, 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 the agenda item. The Committee further agreed that States members of the Committee should be invited to give their opinions on those matters.¹
2. Information received from member States by 21 January 2002 is contained in document A/AC.105/635 and Add.1-6.
3. At its forty-first session, the Legal Subcommittee endorsed the report of the Working Group on agenda item 6 (a), "Matters relating to the definition and delimitation of outer space". The working group revised the questionnaire on possible legal issues with regard to aerospace objects and agreed to amend questions 7 and 8 and to add a question 10. The Working Group agreed that the questionnaire, as amended, should be circulated to all Member States of the United Nations (A/AC.105/787, annex II, paras. 8, 10 and 11).
4. The present document was prepared by the Secretariat on the basis of the replies received to the amended questionnaire from Member States as at 8 January 2003, namely, from Algeria, Costa Rica, the Czech Republic, Ecuador, El Salvador, Mexico, Morocco, South Africa and Turkey.

II. Replies received from Member States*

Introductory comments

Czech Republic

[Original: English]

The delegation of the Czech Republic was one of the first delegations to the Committee on the Peaceful Uses of Outer Space to submit a reply to the original version of the questionnaire. The full text of that reply is contained in the note by the Secretariat of 15 February 1996 (A/AC.105/635). Since then, the views of the Czech Republic have not changed substantially. Therefore, it was decided, in replying to the present version of the questionnaire, to submit a condensed version of the views of the Czech Republic as reviewed and completed in reply to the new question 10.

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

South Africa

[Original: English]

1. Neither in South African legislation nor in the space treaties does there appear to be a definition of an “aerospace object”. The term “aerospace object” is loaded to carry the meaning of an object suited to both outer space and airspace. The Concise Oxford Dictionary defines aerospace as a noun meaning “the Earth’s atmosphere and outer space” and, secondly, as “the technology of aviation in this region”. Failing a legal definition of an aerospace object, that implication, arising from the dictionary definition, will tend to bias all answers towards seeing aerospace objects as capable of being in both airspace and outer space.
2. The South African Space Affairs Act of 1993 defines “outer space” as meaning “the space above the surface of the Earth from a height at which it is practice to operate an object in orbit around the Earth”. “Space activities” are defined in the same Act as meaning “the activities directly contributing to the launching of space craft and the operation of such craft in outer space”. “Space-related activities” are defined as meaning “all activities supporting, or sharing mutual technologies with, space activities”.
3. Air law in South Africa is governed by the Aviation Act No.74 of 1962, which defines an aircraft as “any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the Earth’s surface”.
4. There is an ongoing debate on the definition of outer space. There are also States that believe that they should have, at least to some degree, a sovereign right to both airspace and outer space above their territories. Being aware of the above problems of definition and the positions of some States regarding sovereign rights in space, it must be stated that the answers appended to the questions posed are provided from a purely legal point of view and have not taken into account any political nuances.

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?

Algeria

[Original: French]

By definition, an aerospace vehicle is a vehicle principally intended to deliver a payload (spacecraft, sounding rocket, launcher, ballistic missile or shuttle). Consequently, an aerospace object cannot be defined as one capable of using its aerodynamic properties to remain in airspace for a certain period of time, as a launcher does not have such aerodynamic properties.

Costa Rica

[Original: Spanish]

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

Czech Republic

[Original: English]

The suggested definition may be accepted for working purposes. However, it should be further considered in the future in view of the fact that the term “aerospace object” should cover different types of aerospace vehicles, some of which have already been operative or at least tested, and others which are still in the design, planning or at most experimental stages.

Ecuador

[Original: Spanish]

1. In question 1, the word “espacial” in the Spanish version should be replaced with the word “aeroespacial”.
2. In the definition, the words “remain in airspace for a certain period of time” could be misinterpreted, as they could be taken to mean that the aerospace object can remain apparently stationary in airspace. It is proposed that these words be replaced with the words “move in airspace”.

El Salvador

[Original: Spanish]

El Salvador considers it necessary to make a distinction in this definition, since any item in space, such as a meteorite, could also be regarded as an aerospace object. Therefore, the following definition could be used:

“An aerospace vehicle is any object that, with self-propulsion and steering systems, is capable of travelling to outer space and using its aerodynamic properties to remain in airspace for a certain period of time and in some cases re-entering the Earth’s atmosphere.”

Mexico

[Original: Spanish]

The definition suggested in the questionnaire constitutes a good starting point for discussing the subject. However, it should be made more precise by including a reference to the general purpose of aerospace objects or the type of activity they normally carry out. Similarly, the scope of the words “for a certain period of time”, which could prove to be vague, should be even more specific.

Morocco

[Original: French]

The suggested definition of the term “aerospace object” is worth considering, but additional information must be provided about the characteristics of an aerospace object so as to give such objects a legal definition compatible with international space law. Moreover, the use of the term “aerospace object” may create confusion with other frequently used terms, such as “aircraft”, “spacecraft” or “space object”. If the term “aerospace object” is to be used, it should be defined properly in relation to other terms used in international legal instruments.

South Africa

[Original: English]

Yes, a definition of an aerospace object is necessary, as it is not defined in the treaties. This definition does reflect the technological capabilities of an aerospace object to remain in airspace and travel through outer space. However, save for identifying its dual capability, the definition does not shed any light on the functionality of an aerospace object. The definition should also include the purpose of the mission.

Turkey

[Original: English]

The suggested definition is agreeable insofar as objects capable of travelling through outer space and moving through airspace are concerned. Yet technical aspects of the question must be studied beforehand, since some “aerospace objects” are still in the design and planning stage.

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

Algeria

[Original: French]

The regime applicable to the flight of aerospace objects differs according to whether it is located in airspace or outer space, as follows: in airspace the regime is aerobic (use of air for combustion: jet-propelled aircraft); and in outer space the regime is anaerobic (oxygen is carried on the vehicle: rocket).

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.

Czech Republic

[Original: English]

If the verb “is located” means a real flight of a craft in airspace on the basis of principles and technology of aeronautics on the one hand and the movement of an object to, in and from orbit on the basis of principles and technology of astronautics on the other, the reply to this question should be positive. This answer, however, is subject to further consideration taking into account the purposes served by each aerospace object (see below replies to questions 3 and 4).

Ecuador

[Original: Spanish]

1. To answer this question, it should be mentioned that an aerospace object functions as a space object during its launch and orbit, whereas it operates as an aircraft during its return to the atmosphere and its landing. That is, its design features and functionality enable it to operate in both airspace and outer space. However, since outer space is the maximum operational range of such an object, it must be assumed that its final destination is always located in outer space; if it were determined that its final destination was located in airspace, this would detract from the purpose for which it was designed and built, because it would function as an aircraft that would not merit different treatment and whose flight would have to be governed by air law.
2. Since the final destination of an aerospace object is a location in outer space, its movement through airspace is simply an obligatory passage that may be likened to the innocent passage of a space object through the airspace of a State other than the launching State, which must be properly regulated. Therefore a single legal regime should be applied to the movement of an aerospace object, the regime applicable to outer space.
3. In that regard, it should be mentioned that there is a serious lacuna in both space law and air law owing to the failure to delimit air space.

El Salvador

[Original: Spanish]

In accordance with the various international treaties in force on the subject, El Salvador considers that the regime applicable to the flight of aerospace objects does differ according to whether it is located in airspace or outer space, since airspace is subject to the sovereignty of States, and State sovereignty governs activities related to air transit and liability for damage to third States on the surface of the Earth. Outer space, on the other hand, has been declared the common heritage of mankind, free for exploration and use by States, not subject to appropriation by claims of sovereignty, by means of use or occupation or by any other means; the same applies to the Moon and other celestial bodies.

Mexico

[Original: Spanish]

Bearing in mind that the main purpose of aerospace objects is to carry out activities in outer space, the provisions of space law should, as a general rule, apply to them. However, this does not mean that their movement through airspace should not comply, under certain circumstances, with air law. It is the view of Mexico that the movement of an aerospace object through the airspace of a State should be subject to certain provisions of air law, in particular those relating to authorization of passage, the fact that such passage must be innocent and, where necessary, the observance of air traffic rules.

Morocco

[Original: French]

1. If the “aerospace object” is intended for exploration and use in outer space, it is quite logical to apply to it the space law regulations in force, in particular with regard to liability in the event of damage.
2. If, on the other hand, the “aerospace object” has uses relating to air traffic, the application of international air traffic law may be considered.
3. This duality of use may give rise to ambiguities and create conflicts with respect to the application of legal instruments in the event of an accident.

South Africa

[Original: English]

No. The launch remains a space activity therefore it is governed by the same regime. Airspace is the intermediate medium through which the aerospace object travels.

Turkey

[Original: English]

1. The legal regime applicable to the flight of aerospace objects differs according to whether it is located in airspace or outer space. Air law applies in the former case while the latter is subject to space law.
2. However, taking account of the technical properties of aerospace objects, which are capable of both moving through airspace and travelling through outer space, and technical developments realized and yet to be attained, consideration must be given to developing a new legal regime in that regard.

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?

Algeria

[Original: French]

Yes; owing principally to the functional characteristics of each dedicated mission, it is not possible to develop a unified regime for such objects.

Costa Rica

[Original: Spanish]

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

Czech Republic

[Original: English]

1. Unless a single special regulation for aerospace objects is developed, such objects, if capable of being used for both purposes, will indeed face two different legal regimes relating to the two categories of activity in the space surrounding the Earth. At present, the law governing aeronautics and the law governing astronautics differ substantially, both in their essential principles and in their specific rules.
2. It is possible, however, that in practice some types of aerospace object will be considered aircraft even if they perform parts of their flights in outer space and other types of aerospace object will be considered essentially space objects because they use some elements of aerodynamics only for the purpose of take-off from and landing on Earth.
3. At the present stage of development of aerospace objects, the probability of the design and establishment of a single regime to govern activities of all objects of this kind seems to be rather remote, though in the long run such a solution would be appropriate.

Ecuador

[Original: Spanish]

Bearing in mind that the purpose of an aerospace object is to enter outer space, irrespective of the functional capacity that allows it to operate as an aircraft in certain phases of its movement, a single regime should be applied to all such objects.

El Salvador

[Original: Spanish]

There are no special international procedures applicable to aerospace objects in relation to their technical and functional characteristics, but it should, nevertheless, be possible to establish a unified legal regime to identify aerospace objects and their legal status without violating current air and space law. As new types of vehicle are developed, the instrument could be amended so as not to leave out any aerospace object.

Mexico

[Original: Spanish]

1. Since the use of aerospace objects is not highly advanced, there are not yet any special procedures for their legal regulation. Until now such procedures have not been necessary. However, in the light of the future development of aerospace objects and the increase in their use, Mexico considers that it will be appropriate to create a legal regime that takes into account the diversity of their functional characteristics, their aerodynamic properties and the space technology used. The objective would be to establish a special classification related both to air law and to space law.
2. The development of a particular regime applicable to aerospace objects must take into account existing circumstances, but also future prospects for development, so that the regime does not become inadequate or obstructive.

Morocco

[Original: French]

There are no special international procedures governing aerospace objects because use of this type of craft is limited. However, a single regime applicable to aerospace objects should be developed on the basis of existing treaties such as the Convention on International Liability for Damage Caused by Space Objects of 1972 (General Assembly resolution 2777 (XXVI), annex, the “Liability Convention”).

South Africa

[Original: English]

As none of the treaties, nor the South African Space Affairs Act, mentions or defines an aerospace object, South Africa has no knowledge of any special procedures that apply to aerospace objects. Until such time as aerospace objects are clearly defined according to their technical capabilities and operation, it cannot be said for certain whether a separate legal regime should apply.

Turkey

[Original: English]

There are no special procedures considering the aerodynamic properties, the diversity of functional characteristics and design features of aerospace objects at present. The reason why it was not felt necessary to develop such technical

procedures is that quite a number of States and organizations have the technical capability to launch an aerospace object and so far no problems have arisen from the lack of norms. On the other hand, as the interest in aerospace objects, as well as the activities in that field, increases, the need to develop procedures that take into account special features of aerospace objects also arises.

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?

Algeria

[Original: French]

Investigations are under way.

Costa Rica

[Original: Spanish]

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

Czech Republic

[Original: English]

It is possible to give a positive reply to the first part of this question in relation to those aerospace objects which would be capable of serving both purposes, that is, the purposes of aeronautics and astronautics. However, aerospace vehicles serving the purpose of air transportation, even if they flew for a certain period in outer space, might essentially remain aircraft and contrarily, aerospace objects flying through airspace for the purposes of their ascent to or descent from outer space might be considered spacecraft (as is the case of the present Space Shuttle). Even such objects, however, have to observe some principles and rules of the other legal regime, if they move in another part of space than that of their destination.

Ecuador

[Original: Spanish]

For the reasons set out above, Ecuador considers that the single legal regime of space law should prevail.

El Salvador

[Original: Spanish]

On the basis of existing international law, the general principle could be that aerospace objects travelling through airspace are considered aircraft and that, when they travel through outer space, they are considered spacecraft. However, in the light of technological advances and the wide range of objects that can be covered by the concept of “aerospace object”, it would be advisable to analyse the possibility of creating a special legal regime.

Mexico

[Original: Spanish]

As stated in the reply to question 2, aerospace objects should be governed by space law in general and by certain provisions of air law when they are moving through airspace. Establishing a distinction on the basis of the location or destination of the flight may cause confusion and give rise to difficulties in practical implementation.

Morocco

[Original: French]

As has been stated in the replies to previous questions, space law must prevail with regard to the flight of an aerospace object during all the phases of its movement, that is, from the time the object takes off (from the Earth or from a platform) until it arrives at its destination (entry into orbit or landing). Air law could be applicable if the object in question is used in the airspace of another State. However, such a dual regime could cause confusion.

South Africa

[Original: English]

The applicable legal regime of an aerospace object should depend on the functioning of the aerospace object and its ultimate destination.

Turkey

[Original: English]

Aerospace objects, since they are capable of moving through airspace and travelling through outer space, which are physically different from each other, have to be subject to the rules of the surroundings in which they are present. Current international space rules govern the activities of aerospace objects when they travel through outer space, whereas no rules exist to be applied to the movement through air space of those objects. This question must be considered within the concept of “aerospace” and national and international aviation rules must be applied together with the space rules.

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?

Algeria

[Original: French]

A distinction must be drawn between the take-off and landing phases and the phase lasting from entry into airspace from orbit until return to orbit.

Costa Rica

[Original: Spanish]

In practice, as regards the regulation of activities in airspace, in Costa Rica the applicable regime is the Convention on International Civil Aviation.¹ There is no regime applicable to aerospace objects.

Czech Republic

[Original: English]

If we understand this question correctly, an aerospace vehicle that serves the purposes of astronautics (such as the present Space Shuttle) does not require a different degree of regulation for its take-off and landing phases provided that it observes, as necessary, the principles and rules of air law in order to avoid infractions of safety of the air. However, an aerospace object that would be capable of serving both purposes, that is, to fly as an aircraft in airspace and to move as a spacecraft in outer space, should operate in conformity with air law or space law in the respective parts of space. The regulation of the taking-off and landing phases for such objects, which might be different for either of these manoeuvres owing to their differing performances, should be developed in future in connection with a general space traffic regulation.

Ecuador

[Original: Spanish]

There is no reason for a different degree of regulation, since Ecuador considers that all the phases of movement of an aerospace object should be regulated by space law.

El Salvador

[Original: Spanish]

For technical reasons, the take-off and landing phases of aerospace vehicles have distinct characteristics, specifically with regard to launch pads and entry into or departure from orbits. The regime applicable to third States and aspects of

¹ United Nations, *Treaty Series*, vol. 15, No. 102.

security could therefore be determined with reference to aerospace vehicles and the liabilities of the State that owns the aerospace vehicle in the event of an accident.

Mexico

[Original: Spanish]

Whenever an aerospace object can travel in airspace for a certain time, a different degree of regulation is justified, although the general norms of space law will govern the greater part of the flight of such an object.

Morocco

[Original: French]

Given that take-off and landing are two different phases, it is clear that special legal procedures should be laid down in the regime for aerospace objects. This applies in particular to the landing phase, which sometimes causes damage for various reasons, especially if on landing the aerospace object crosses the airspace of a State other than the State responsible for it. During the take-off phase, the launching State is the relevant one, according to the existing definition.

South Africa

[Original: English]

Unable to respond.

Turkey

[Original: English]

As for the legal regime to be applied, Turkey refers to the answer given to the previous question. Take-off and landing phases of aerospace objects in airspace are of great importance as regards the rules applicable to activities in airspace and outer space. All performances of aerospace objects relating to take-off and landing phases (re-entry to and depart from airspace, moving through another State's airspace and so on) must be defined in detail, and rules governing those performances need to be drawn up. In addition to this, it must be made clear which air traffic units are to be cooperated with during the launching phase and how time/route coordination with civilian traffic is to be arranged.

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?

Algeria

[Original: French]

The norms of national and international air law are applicable to objects entering the airspace of another State.

Costa Rica

[Original: Spanish]

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

Czech Republic

[Original: English]

The norms of national and international air law would be fully applicable only to those aerospace objects which would be capable of serving the purposes of aeronautics, not to those aerospace vehicles which would be essentially considered space objects. But even the aerospace objects serving the purposes of astronautics will have to observe some of the norms of air law, in particular the principle of complete and exclusive sovereignty over the airspace of another State while moving through it.

Ecuador

[Original: Spanish]

No. It would be advisable for space law to govern the innocent passage of aerospace objects and for international agreements to be concluded so as to deal with emergency situations in which an aerospace object is obliged to land in, fly over, enter or leave the territory of a State other than the launching State.

El Salvador

[Original: Spanish]

Yes, because, as stated in the reply to question 4, it is considered appropriate for the moment to regard aerospace objects travelling through airspace as aircraft and therefore subject to the norms of national and international air law.

Mexico

[Original: Spanish]

Yes, in line with the approach adopted by Mexico, some norms of national and international air law would apply to an aerospace object travelling through airspace. So as to determine more easily which norms apply, it is necessary to determine when an object is in airspace and when it is in outer space.

Morocco

[Original: French]

If one allows a dual regime to be applicable depending on where the aerospace object is located, the norms of national or international air law must apply in cases where an aerospace object is located in the airspace of another State (see reply to question 4).

South Africa

[Original: English]

Applicable norms will be those of space law. However, a particular State may indicate a specific route or point of landing for an aerospace object within its territory.

Turkey

[Original: English]

When an aerospace object of one State moves through the airspace of another State, national air law of the latter State and international air law shall apply. Therefore, if an aerospace object is to pass through the airspace of another State, that State must be informed beforehand and in detail of the launching sites and flight paths and the flight must be coordinated as well.

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?

Algeria

[Original: French]

There is a precedent in the case of the United States Skylab Space Station. The legal aspect of the question is being investigated.

Costa Rica

[Original: Spanish]

There are no precedents with respect to the passage of aerospace objects after 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.

Czech Republic

[Original: English]

In practice, such passage probably occurs and no protests against it have been raised so far. In some cases, however, a launching State notifies such passage in advance to the subjacent State or States and requests its or their authorization to do so. In the doctrine of space law there has not yet been sufficient support for the conclusion that the right of passage for an ascending or descending space object has become a customary rule of international law.

Ecuador

[Original: Spanish]

The return to Earth of Space Shuttles that have flown through the airspace of third countries can be regarded as precedents with respect to innocent passage.

El Salvador

[Original: Spanish]

There is no record of any precedent in the case of El Salvador. El Salvador considers that relevant measures should be adopted, on the basis of the treaties and conventions in force, in case an incident occurs—a possibility that always exists.

Mexico

[Original: Spanish]

Since existing activity is limited, it cannot be considered that international customary law exists with respect to the passage of aerospace objects.

Morocco

[Original: French]

There would seem to be a precedent (the case of the Russian shuttle in 1988), but the lack of available information makes it impossible to have a clear view on the issue. Nonetheless, measures based on existing treaties and conventions must be taken if any incident occurs.

South Africa

[Original: English]

Yes, there are examples with respect to the passage of aerospace objects: the State responsible for the aerospace object should inform other States. South Africa is not aware that any international customary law exists with respect to such passage of aerospace objects.

Turkey

[Original: English]

There have been precedents with respect to the passage of aerospace objects after re-entry into the Earth's atmosphere and international practice exists as regards furnishing the States whose territories are to be overflowed with relevant information. Yet international practices regarding the right of passage for an ascending or descending aerospace object have not sufficiently proved to be evidence of a general practice accepted as law and therefore do not constitute international customary law.

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?**Algeria**

[Original: French]

In the opinion of Algeria, the national legal norms have not yet been defined.

Costa Rica

[Original: Spanish]

Such passage is not regulated by Costa Rican domestic law, 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 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”);

(c) The Liability Convention.

Czech Republic

[Original: English]

While there are no specific rules that should govern the passage of aerospace objects during take-off and/or re-entry into Earth’s atmosphere, it is to be recalled that at least some of the principles and norms of air law must be observed and some general provisions of international space law, in particular those contained in the Outer Space Treaty, are applicable to all stages of space flight, including the passage of space objects through the Earth’s atmosphere.

Ecuador

[Original: Spanish]

1. Ecuador has no knowledge of any international legal norms or declaration of principles in space law applicable to the passage of space objects during take-off and/or re-entry into the Earth’s atmosphere. Ecuador has recommended the formulation of such norms in its reply to the questionnaire.

2. In Ecuadorian air law there are no provisions of this kind.

El Salvador

[Original: Spanish]

There is no national law governing the passage of space objects during take-off and/or re-entry into the Earth’s atmosphere.

Mexico

[Original: Spanish]

1. There are no legal norms in Mexican national law that specifically regulate the passage of space objects during take-off and/or re-entry into the Earth’s atmosphere.

2. At the international level, the aim of norms relating to the re-entry of space objects into the Earth’s atmosphere has been to ensure the safe return both of objects and of persons and property to the Earth. States that control the return of

space objects to the Earth have therefore observed certain basic norms so as to avoid or minimize damage or accidents, including the notification of States through whose territory the objects would pass or, in the case of return to areas beyond national jurisdiction, the notification of States that carry out activities in those areas and of international organizations that might be interested. These actions open the door to the development of international norms applicable to the re-entry of space objects into the Earth's atmosphere.

Morocco

[Original: French]

Morocco does not have any national space law, but the norms and provisions laid down in conventions and the international customary law governing the right of passage into the airspace of a foreign State must be applied where necessary.

South Africa

[Original: English]

In this regard articles VII and VIII of the Outer Space Treaty and article 5 of the Rescue Agreement lend some assistance in answering this question.

Turkey

[Original: English]

As far as the relevant articles of the Turkish Civil Aviation Code are concerned, space objects moving through Turkish airspace are subject to the same rules as aircraft and other flying objects. The United Nations treaties and principles relating to various aspects of the issue must also be considered.

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

Algeria

[Original: French]

The rules concerning the registration of objects launched into outer space are applicable to aerospace objects (see reply to question 1).

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.

Czech Republic

[Original: English]

The rules concerning the registration of objects launched into outer space are fully applicable to the existing aerospace objects, which are essentially considered space objects. These rules should also be applicable to future aerospace vehicles capable of serving the purposes of astronautics. An aerospace vehicle capable of serving both purposes (those of aeronautics and astronautics) should be subject to a double registration, as an aircraft and a spacecraft, unless the single regime mentioned under question 3 is developed and provides for a different procedure. Such a regime should also include appropriate provisions on the establishment of special national registries (and perhaps also of a special international register) for such aerospace objects.

Ecuador

[Original: Spanish]

Yes. The provisions of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex, the "Registration Convention") are considered to be perfectly applicable to aerospace objects.

El Salvador

[Original: Spanish]

For the moment the answer is "yes", as there are no legal norms that prevent this. However, the possibility of creating a special legal regime for aerospace objects should be considered, in particular in view of technological advances in this field.

Mexico

[Original: Spanish]

Yes.

Morocco

[Original: French]

As there is no specific regime for aerospace objects, the rules concerning the registration of objects launched into space must be respected, in particular because registration is vital when issues of liability for possible damage caused by these objects arise.

South Africa

[Original: English]

Yes. These rules are found, among other things, in the Registration Convention.

Turkey

[Original: English]

Rules concerning the registration of objects launched into outer space as specified in the Registration Convention may well be applied to aerospace objects. However those rules need to be amended in accordance with technological developments.

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

[Original: French]

Investigations are under way.

Costa Rica

[Original: Spanish]

1. The difference between the 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 Convention on International Civil Aviation of 1944 (the “Chicago Convention”), which states the following:

“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 investigation in outer space and the non-appropriation of celestial bodies.

Czech Republic

[Original: English]

The main differences between the legal regimes of airspace and outer space relate to the following:

(a) The legality of flight of an aircraft is based on the principle of authorization by a foreign State of a flight through its airspace, while the movement of a space object is based on the principle of freedom of activities in outer space and its consequences;

(b) The registration of aircraft, that has been provided for—as far as civil aircraft are concerned—in the Chicago Convention and the registration of space objects that has been provided for in the Registration Convention establish different methods of and requirements for registration;

(c) The liability in the case of an aircraft is based on international treaties relating to aeronautics and in part on national air laws and is attributable to private

persons, while in the case of a space object it is based on other sources of international law, in particular on the Outer Space Treaty and the Liability Convention, and is attributable to international persons and should be dealt with among themselves. In some space-faring nations, those principles are implemented in special laws governing the activities of those States and their nationals.

Ecuador

[Original: Spanish]

1. The legal regime of airspace is based on the recognition that all States have full and exclusive sovereignty in the airspace located above their territory, whereas the legal regime of outer space is based on the principle that outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.
2. The legal regimes of airspace and outer space are distinguished by the essentially different legal substance of the two sets of international norms to which they pertain: air law is based on the principle of the territorial sovereignty of States over the part of the atmosphere located above their land territory and territorial waters, whereas space law is based on the principle of the freedom of outer space and on the rule that precludes exclusive territorial jurisdiction in outer space.
3. Space law recognizes the rule of the use of outer space for the benefit and in the interest of all countries; no provision of this nature exists in air law.

El Salvador

[Original: Spanish]

Although airspace is not regulated in relation to the area of a State on the Earth's surface, it is considered a part of the State's territory, where the State exercises and may require respect for its sovereignty and jurisdiction. On the other hand, outer space is considered of public interest for scientific purposes, but with respect for third States. Therefore it would be appropriate to draw up a uniform norm that distinguishes between the two areas and protects the rights of third States.

Mexico

[Original: Spanish]

1. The only link between air law and space law is that they provide for the regulation of a physical space distinct from land and sea. However, because those spaces—airspace and outer space—have specific uses and characteristics, the norms applicable to each are very different. The problem becomes apparent when one seeks to formulate a regime for space objects that cross both physical spaces, such as aerospace objects, and to which no special regime is applicable in this regard. Therefore, it will be necessary to apply norms for the two different spaces according to the place in which the object is located.
2. In that respect, the following differences between the legal regimes of airspace and outer space can be established:
 - (a) In air law, the right of innocent passage through the airspace of another State does not exist and the authorization of the foreign State is therefore necessary,

whether in a general form under an international treaty or on a case-by-case basis. In space law, free transit of space objects is permitted. The difference in regulations concerns matters of national security and also the need to regulate the two spaces in accordance with the use that is made of them;

(b) The regimes for the registration of objects are also different. In the case of civil transport aircraft, the Chicago Convention and States' national laws are applicable. On the other hand, the registration of space objects is provided for in the Registration Convention, which covers all objects launched into outer space;

(c) Another important difference relates to liability. In air law, liability is established both by international legal provisions—some of which refer in certain cases to national law for their implementation—and by national provisions; liability is ascribed to private persons. On the other hand, space law establishes the principle of liability of international subjects—States and international organizations that launch space objects—in accordance with the provisions of the Liability Convention;

(d) Certain areas are regulated only by international air law, such as air transit, the international recognition of rights in aircraft, offences and certain other acts committed on board aircraft, the suppression of unlawful seizure of aircraft and the suppression of unlawful acts against the safety of civil aviation. Those areas are not regulated by space law because there is no practical need for such regulation. Similarly, some provisions of space law apply only under the space law regime because of their special characteristics—for example, the allocation of geostationary orbits.

Morocco

[Original: French]

One of the basic differences, which has significant implications for the implementation of each regime, lies in the fact that airspace is subject to the sovereignty of States, whereas outer space is the common heritage of the whole of humankind.

South Africa

[Original: English]

1. The legal regimes applicable to air and space law are completely different. With regard to air law, each State has complete and exclusive sovereignty over the airspace above its territories and territorial waters. However, outer space is viewed as an international resource and is free for exploration and use by all States. Outer space is therefore, unlike airspace, incapable of appropriation.

2. Air law in South Africa is governed by the Aviation Act No. 74 of 1962 (the "Aviation Act"). Section 1 of the Aviation Act defines an "aircraft" as "any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the Earth's surface". Section 2 of the Aviation Act provides:

"The provisions of this Act and of the Convention and of the Transit Agreement, shall, except where expressly excluded under this Act or by

regulation, apply to all aircraft whilst in or over any part of the Republic or the territorial waters thereof and to all South African aircraft and personnel wheresoever they may be.”

3. The First Schedule to the Aviation Act is the Chicago Convention. Article 1 of the Chicago Convention provides:

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

The express reference to “airspace” implicitly excludes the exclusive sovereignty of States over outer space.

4. Article 96 (a) of the Chicago Convention defines “air service” as “any scheduled air service performed by aircraft for the public transport of passengers, men or cargo”. This section clearly does not envisage an “air Service” as including travel into outer space.

5. Outer space is governed by a number of international treaties.

Turkey

[Original: English]

1. Legal regimes governing airspace and outer space differ from each other. Airspace is that above the territory of States. It also extends over the territorial zone of States. The legal regime governing airspace is based on the complete and exclusive sovereignty of States. That principle is included in many multilateral and bilateral treaties and also constitutes a customary rule. A comparison between air and sea is therefore quite feasible. There are territorial waters and there is territorial airspace, over which the State concerned exercises sovereignty.

2. As for outer space, which extends beyond airspace, international law provides for the principle of freedom for the exploration and use of outer space. Outer space is not subject to national appropriation by claim of sovereignty, contrary to national airspace. The only limitation to be applied to the principle of freedom is the condition that the activities of States in the exploration and use of outer space are to be carried out for peaceful purposes.

General responses

Czech Republic

[Original: English]

The Czech Republic appreciates the efforts of the Committee and its Legal Subcommittee devoted to the studies of all aspects of the rather complex issue of the legal status of aerospace objects. This recognition should be attributed in particular to the special Working Group of the Legal Subcommittee, which was established at several sessions of the Subcommittee and dealt with this issue. The Czech Republic believes that the present version of the questionnaire should be considered as final and all replies received from Member States of the United Nations should be included in a report of the Working Group that would summarize the discussions on the issue. That report should be submitted by the Subcommittee to the Committee,

which might be willing to take note of it. The discussion on the issue should then be suspended until such time as a new consideration of the status of aerospace objects becomes urgent in the light of new events.

Notes

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