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## Committee on the Peaceful Uses of Outer Space

# Definition and delimitation of outer space: views of States members and permanent observers of the Committee

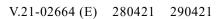
## Note by the Secretariat

## Addendum

## Contents

|     |   | Page |
|-----|---|------|
| II. | Replies received from States members of the Committee | 2    |
|     | Algeria   | 2    |
|     | Argentina   | 2    |
|     | Hungary   | 2    |
|     | Jordan  | 3    |
|     | Morocco   | 3    |
|     | Nicaragua   | 4    |
|     | Pakistan  | 4    |







## II. Replies received from States members of the Committee

## Algeria

[Original: French] [22 February 2021]

This topic has been on the agenda of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space for many years owing to the question of the appropriateness of defining the boundaries between airspace and outer space.

Since this concept of definition and delimitation is not recognized in law, it requires the establishment of specific rules relating to the carrying out of space activities in accordance with the fundamental principles of space law.

In reality, it is not a matter of regulating the zone in which space objects are used but, rather, of regulating space activities among States.

In our view, meaningful cooperation between States that takes into account the applicable treaty provisions and scientific considerations is the most tangible and fair means of utilizing and exploring outer space.

## Argentina

[Original: Spanish] [1 March 2021]

Activities have been carried out normally, despite the lack of a definition with respect to the delimitation of the region involved. The Argentine Republic does not have any concrete proposals to make or information on specific cases; however, it wishes to underline the importance of the safety of space operations and liability for damage that could affect States in connection with space activities as opposed to activities in airspace.

The issue would be best addressed through a convention.

## Hungary

[Original: English] [2 March 2021]

The delimitation of outer space and national airspace is necessary given that, for example, the legal environment for suborbital flights is uncertain. A predictable legal environment is a prerequisite for a prosperous commercial space market. In addition, it is extremely important that objects launched and designed to re-enter the congested airspace (regardless of their purpose, i.e., suborbital or orbital missions) move in a safe environment, with as uniform and efficient control as possible.

In our view, these are the objectives to be borne in mind when States debate the necessity of the delimitation of airspace and outer space and the definition of suborbital flights. From this perspective, the exact separation of outer space and airspace is necessary.

In recent decades, two theories have become entrenched in the field of legal science: the spatialist approach and the functionalist approach. Although both theories and their sub-theories raise additional questions, we believe that the spatialist approach does not serve the above purposes, because, while it allows for a clear demarcation, it can still lead to a situation where a mission falls under two legal regimes (for example, suborbital flights). However, it is important to note that this approach encourages space tourism, as it is commercially important for space tourists to be able to officially "travel in space". Were this approach to be accepted, we suggest making a clear difference between astronauts, who are "envoys of mankind" (under the Treaty

**2/4** V.21-02664

on Principles Governing the Activities of States in the Exploration and use of Outer Space, including the Moon and Other Celestial Bodies), and space tourists participating in suborbital flights.

In contrast to the spatialist approach, the so-called functionalist approach focuses on the purpose or nature of the activity, not the distance from the Earth. In our view, in particular with regard to suborbital flights, this approach better serves the above objectives, as it provides for a single legal regime. The weak point of this model is that it does not define any clear and unambiguous criterion for the delimitation. A solution for this could be to use the velocity of the object as the criterion for delimitation between air and space activities. A model could be conceived whereby the activity is considered to be a space activity when the object reaches (or intends to reach) orbital velocity and hence orbits around the Earth (at least once). According to this approach, suborbital flights would not be considered as space activities and international air law would apply. The advantage – beyond the fact that only one legal regime would apply – is that air law, at least today, offers many more guarantees as far as security in concerned.

In conclusion, we do not believe that airspace should be separated from outer space, but that activities covered by air law and space law should be distinguished. The delimitation must be determined according to an objective criterion which is constant in all the circumstances. The goal is twofold: to stimulate the market for commercial space activities, while creating maximum security and regulated conditions.

#### Jordan

[Original: Arabic] [1 April 2021]

At its fifty-eighth session, the Legal Subcommittee considered the agenda item concerning the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.

The lack of a definition or delimitation of outer space brings about legal uncertainty concerning the applicability of space law and air law. Matters concerning State sovereignty and the boundary between airspace and outer space need to be clarified in order to reduce the possibility of disputes among States.

#### Morocco

[Original: French] [9 March 2021]

The need to define and delimit outer space might be justified by the following considerations:

- The use of outer space without appropriate controls must be avoided
- The safety and sustainability of outer space activities should be enhanced
- The lack of any definition or delimitation of outer space may lead to legal problems in the event of non-compliance with the obligations relating to the liability and sovereignty of States arising from the five treaties governing space activities

However, the definition and delimitation of outer space should not lead to the revision and amendment of those treaties but, rather, should make it possible to enhance and extend their application.

V.21-02664 3/4

## Nicaragua

[Original: Spanish] [8 March 2021]

For the purposes of regulatory jurisdiction, Nicaragua considers it necessary to define and delimit outer space mainly to enable the implementation of new technologies, scientific research and other applications (services), on the basis of the principle that outer space is of common interest to all humankind and needs to be regulated by States so that it can be properly explored and used for peaceful purposes.

## Pakistan

[Original: English] [2 March 2021]

Scientific and technological progress, the commercialization of outer space, the participation of the private sector, emerging legal issues and the increasing use of outer space in general has made it necessary to consider the question of the definition and delimitation of outer space. The lack of a definition or delimitation of outer space has created legal uncertainty regarding the applicability of air law and space law. Matters concerning State sovereignty and the boundary between airspace and outer space need to be clarified in order to reduce the possibility of disputes among States. An agreement on a clear definition on the demarcation of outer space and airspace would allow the Legal Subcommittee of Committee on the Peaceful Uses of Outer Space to concentrate on developing and improving legal instruments that apply to activities that are not restricted to a single realm of space and would create the legal certainty that is needed to provide commercial operators with the necessary assurances to carry out their activities. Space activities are not conducted exclusively in outer space. In order for space objects to reach and return from an orbit, national and, occasionally, foreign airspace has to be overflown, giving rise to sensitive legal and political considerations. Air law and space law have different approaches to territorial State sovereignty. According to the Convention on International Civil Aviation of 1944, States hold absolute and exclusive jurisdiction over their respective airspace. On the other hand, the Treaty on Principles Governing the Activities of States in the Exploration and use of Outer Space, including the Moon and Other Celestial Bodies, of 1967, establishes that outer space cannot be subjected to national appropriation of any kind. Pakistan believes in the peaceful utilization of outer space but not at the cost of jeopardizing/affecting/violating the sovereignty of other countries. Therefore, it is recommended that there is a need to define the boundaries of outer space.

**4/4** V.21-02664