Questions on suborbital flights for scientific missions and/or for human transportation

Note by the Secretariat

Addendum

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I. Introduction

1. At the fifty-first session of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space, in 2012, the Working Group on the Definition and Delimitation of Outer Space agreed to address to Member States of the United Nations and permanent observers of the Committee the following questions (A/AC.105/1003, annex II, para. 10 (c):

   (a) Is there a relationship between suborbital flights for scientific missions and/or for human transportation and the definition and delimitation of outer space?

   (b) Will the legal definition of suborbital flights for scientific missions and/or for human transportation be practically useful for States and other actors with regard to space activities?

   (c) How will the legal definition of suborbital flights for scientific missions and/or for human transportation impact the progressive development of space law?

   (d) Please propose other questions to be considered in the framework of the legal definition of suborbital flights for scientific missions and/or for human transportation.

II. Replies received from Member States

Colombia

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   Question (a). A suborbital flight is an activity carried out by an aircraft with the capacity to reach altitudes of between 100 and 50 kilometres, an achievement owed to the development of and advances in science and technology and one that would have been unimaginable when aviation first became possible in 1919, or in 1957, at the beginning of the space age. However, the definition and delimitation of outer space, firstly, should not depend upon technological advances, given that such advances have a permanent and unpredictable impact, thus entailing legal uncertainty for the various actors concerned, particularly for States, which under aviation law exercise sovereignty over the space below corresponding to their territories. Secondly, it should be borne in mind that suborbital flights involve aircraft with technological configurations that enable them to fly at altitudes between 100 and 150 kilometres; that aircraft, given its characteristics and purpose, does not change in nature, so the applicable legal regime should also remain unchanged.

   Question (b). The legal definition of suborbital flights would be of practical use to States if such flights were legally defined as an aeronautic activity; however, new types of suborbital flight could give rise to difficulties in the application of that definition and in the legislative framework arising from it. It is therefore more appropriate for States, bearing in mind the extent of relevant scientific and technological advances, to apply to such scientific and touristic suborbital flights the provisions of aviation law and treat persons on board as passengers, depending
on the type and characteristics of the aircraft. The fact that the configuration and capacity of the aircraft enables it to carry out suborbital flights changes neither its nature nor the status of those on board, who should be treated as passengers or crew members, not as astronauts, particularly given the progress that has been made by commercial companies in developing transatlantic suborbital flights with the aim of reducing costs and flight times, an area of technology that is developing rapidly and is therefore predicted to spread very quickly.

Question (c). Consideration should be given to the question of how the definition of suborbital flights will be affected by the Convention on International Liability for Damage Caused by Space Objects and whether objects that perform suborbital flights will be considered space objects in the light of treaties relating to outer space.

Account should be taken of the definition of “space object” as set out in article 1, paragraph (d), of the Convention on International Liability for Damage Caused by Space Objects and article 1, paragraph (b), of the Convention on Registration of Objects Launched into Outer Space: “the term ‘space object’ includes component parts of a space object as well as its launch vehicle and parts thereof”. Consideration should also be given to the question of whether that definition is sufficient to describe such objects or whether it would be possible to expand it within the legal scope of the definition of suborbital flights.

Account should be taken of the definition of “launching State” set out in article 1, paragraph (c), of the Convention on International Liability for Damage Caused by Space Objects, and it should be decided whether that definition will be applied to States launching space objects that carry out suborbital flights.

When considering the definition of and regulatory framework for suborbital flights, the question of whether humans travelling on such flights will be regarded as astronauts should also be considered, in the light of article 5 of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Question (d). See response to the previous question.