

The Legal status of the Tourists in Space Tourism สถานะทางกฎหมายของนักท่องเที่ยวในการท่องเที่ยวอวกาศ

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Abstract

Space Tourism becomes the new era of the exploration and use of outer space in the peaceful purposes, and has been discussed scholarly for a long period of time. As a result of the outer space competition has evolved increasingly include non-state entities specifically the space companies, which are becoming the serious actors in outer space activities themselves.

However, the ambiguity of the international legal principle is concerned, especially in the legal of status of the space tourists are questionable in the present, the international space laws only recognize the astronaut as the envoy of mankind in accordance with the Outer Space Treaty (formally known as Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies 1967), Article V provides that “States Parties to the Treaty ... shall render to them

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all possible assistance in the event of accident, distress, or emergency landing on the territory of another State Party or on the high seas” and elaborated in the Rescue Agreement (formally known as Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space 1968). Nevertheless, it does not mention to the legal status of the tourists in space tourism, even though in the Rescue Agreement broadens this obligation to include all “personnel of a spacecraft”, it is questionable whether the word “personnel of the aircraft” in this context refers to space tourists as well.

This paper argue that the word “personnel of a spacecraft” in Rescue Agreement is not include the space tourists, because the space tourism is a commercial transaction, so the tourists neither represent their country nor the envoy of mankind, they go to the outer space for pleasure and recreation, do not conduct researches for their country. Therefore, it cannot apply the Outer Space Treaty and the Rescue Agreement to the space tourists in the space tourism.

Keywords: legal status, space tourism, tourist

บทคัดย่อ

การท่องเที่ยวอวกาศ (Space Tourism) กลยุทธ์เป็นยุคใหม่ของการสำรวจและใช้งานห้วงอวกาศในทางสันติวิธี และก่อให้เกิดการถกเถียงในทางวิชาการมาเป็นช่วงระยะเวลานาน ทั้งนี้ด้วยผลของสถานการณ์ของการแข่งขันทางด้านอวกาศซึ่งรวมถึงองค์กรซึ่งไม่ใช่รัฐ โดยเฉพาะบริษัทเอกชนซึ่งประกอบการธุรกิจด้านอวกาศอย ฯ เช่นมาสีบบทบาทมากขึ้นเรื่อย ฯ จนกลยุทธ์เป็นตัวลักษณะหลักในการดำเนินกิจกรรมด้านอวกาศ

อย่างไรก็ตาม ด้วยความไม่ชัดเจนของหลักกฎหมายระหว่างประเทศได้สร้างความกังวล โดยเฉพาะสถานะทางกฎหมายของนักท่องเที่ยววิวากาศ (Space tourists) ได้ถูกตั้งคำถามในปัจจุบัน ทั้งนี้เพราะกฎหมายวิวากาศระหว่างประเทศรองรับเฉพาะสถานะของนักบินวิวากาศในฐานะที่เป็นหุตของมวลมนุษยชาติตามที่บัญญัติไว้ในอนุสัญญาวิวากาศฯ ซึ่งข้อ 5 ได้กำหนดไว้ว่ารัฐภาคีแห่งอนุสัญญา ... จะต้องให้ความช่วยเหลือต่อนักบินวิวากาศในทุกวิธีทางไม่ว่ากรณีเกิดอุบัติเหตุ ตอกยุ่นสถานการณ์ที่ยากลำบาก หรือการลงจอดในเหตุฉุกเฉินในอาณาเขตของรัฐภาคีอื่น หรือในทะเลหลวง” และพันธกรณีนี้ถูกทำให้ชัดเจนในรายละเอียดโดยข้อตกลงว่าด้วยการช่วยเหลือและส่งกลับนักบินและวัตถุวิวากาศ ค.ศ. 1968 แต่อย่างไรก็ตาม ไม่ได้มีการกล่าวถึงสถานะทางกฎหมายของนักท่องเที่ยวในการท่องเที่ยววิวากาศไว้ แม้ว่าในส่วนของข้อตกลงว่าด้วยการช่วยเหลือและส่งกลับนักบินและวัตถุวิวากาศ ค.ศ. 1968 จะได้กำหนดพันธกรณีให้รวมถึงบุคลากรของยานวิวากาศด้วยก็ตาม ยังก่อให้เกิดคำถามตามมาว่า “บุคลากรของยานวิวากาศ” จะหมายความรวมถึงนักท่องเที่ยววิวากาศด้วยหรือไม่

บทความฉบับนี้ได้ยังถึงคำว่า “บุคลากรของยานวิวากาศ” ในอนุสัญญาช่วยเหลือฯ นั้น ไม่รวมถึงนักท่องเที่ยววิวากาศ เพราะการท่องเที่ยววิวากาศเป็นเรื่องของธุรกรรมในทางธุรกิจการค้า ดังนั้น นักท่องเที่ยววิวากาศไม่ได้อยู่ในสถานะเป็นตัวแทนของประเทศของเข้า และไม่ใช่หุตของมวลมนุษยชาติ พวกเข้าเดินทางไปในห้วงวิวากาศเพื่อความสำราญและพักผ่อนหย่อนใจ ไม่ได้ดำเนินการวิจัยใด ๆ เพื่อประเทศของพวกเข้า ดังนั้น ไม่สามารถปรับใช้สนธิสัญญาวิวากาศฯ และข้อตกลงว่าด้วยการช่วยเหลือและส่งกลับนักบินและวัตถุวิวากาศ ค.ศ. 1968 กับนักท่องเที่ยววิวากาศได้

คำสำคัญ: สถานะทางกฎหมาย, การท่องเที่ยววิวากาศ, นักท่องเที่ยว

1. Introduction

Space Tourism becomes the new era of the exploration and use of outer space in the peaceful purposes. As a result of the space arena has evolved to also increasingly include non-state entities specifically the space companies, which are becoming the serious actors in outer space activities themselves. Since in April 2001, Dennis Tito was the first civilian who spent six days in the Russian section of the International Space Station (ISS), and in April 2002, Mark Shuttleworth became the world's second one who was launched onto the ISS by the Russian Space Agency (RSA) and spent eight days on the ISS. So it can be foreseeable that the prospect of commercial space tourism is going to proliferate, because of the advancement of the Reusable Launch Vehicle (RLV) technology. So that many companies can save cost of business for capability of providing space tourist flights¹.

However, the ambiguity of the international legal principle is concerned, especially in the legal of status of the space tourists are questionable in the present, the international space laws only recognize the astronaut as the envoy of mankind in accordance with the Outer Space Treaty, Article V provides that "States Parties to the Treaty ... shall render to them all possible assistance in the event of accident, distress, or emergency landing on the territory of another State Party or on the high seas" and elaborated in the Rescue Agreement. Nevertheless, it does not mention to the legal status of the tourists in space tourism, even though in the Rescue

¹ Steven Freeland, "Up, Up and ... Back: The Emergence of Space Tourism and Its Impact on the International Law of Outer Space," *Chicago Journal of International Law*: Vol.6: No. 1 (2005), Article 4. 2-3.

Agreement broadens this obligation to include all "personnel of a spacecraft", it is questionable whether the word "personnel of the aircraft" in this context refers to space tourists as well. So this paper will argue that the word "personnel of a spacecraft" in Rescue Agreement is not include the space tourists, because the space tourism is a commercial transaction, so the tourists neither represent their country nor the envoy of mankind, they go to the outer space for pleasure and recreation, do not conduct researches for their country. Therefore, it cannot apply the Outer Space Treaty and the Rescue Agreement to the space tourists in the space tourism.

This paper will firstly explains the emergence of the space tourism; the meaning of Space Tourism, Space Tourist, and the era of space tourism. Secondly, it will focus on the international space laws that relate to the tourist in space tourism; such as the Outer Space Treaty and the Rescue Agreement. Finally, this paper will analyzes the rights of space companies to explore and use of outer space, including the moon and other celestial bodies, the ambiguity of the word "personnel of a spacecraft" in The Rescue Agreement, and the legal status of the tourists in the space tourism.

2. The Emergence of the Space Tourism

2.1 The Meaning of "Space Tourism" and "Space Tourist"

There is no formal definition of the words space tourism and space tourist, because of the absent of legal international space regime that deal with this issue in the present. However in board sense, the term "space tourism" has been defined as "any commercial activities offering customers direct or indirect

experience with space travel"², and a "space tourist" as "someone who tours or travels into space or to a celestial body for pleasure and recreation"³. Moreover, it includes the tourist activities long-term stays in the orbital facilities for research or entertainment purposes, short-term orbital or sub-orbital flights⁴.

2.2 The Era of Space Tourism

Since the Russian Space Agency began to take the civilians; Dennis Tito and Mark Shuttleworth, to the International Space Station (ISS) in 2001 and 2002 respectively. After that a number of private tourism companies have been established, especially in October 4, 2004, SpaceShipOne, the spacecraft of Virgin Galactic Company, made the second of two suborbital flights in one week, claiming the elusive Ansari X-Prize, the trip claimed media attention, marked a new era of commercial space flight⁵. After this achievement, Virgin Galactic announced its plans to take tourists to the sub-orbital flight, costing 200,000 US dollars with the SpaceShipTwo, launching from Spaceport America. Space tourism operator, XCOR Aerospace, is developing a rocket-propelled winged vehicle for passengers who wish to experience an "individualized" half-hour sub-orbital flight by sitting alongside the pilot and traveling to an altitudes of 100 kilometers. In addition, there are many private

² Stephen Hobe and Jürgen Cloppenburg, "Towards a New Aerospace Convention? – Selected Legal Issues of "Space Tourism", in: **Proceeding of the 47th Colloquium on the Law of Outer Space** (2004). 377

³ Zeldine O'Brien, Liability for Injury, Loss or Damage to the Space Tourist, in: **Proceeding of the 47th Colloquium on the Law of Outer Space** (2004). 386

⁴ Ibid

⁵ The National Aeronautics and Space Administration, "Ansari X-Prize: A Brief History and Background" last modified November 19, 2017. <https://history.nasa.gov/x-prize.htm>

companies in the US who also plan for space tourism, i.e., SpaceX, Blue Origin etc., and rest of the world, i.e., Armadillo, EADS Astrium, Rocketplane⁶ etc.

As has been mentioned above, the space tourism arena has evolved increasingly, the private companies are becoming the major actors in outer space activities. However, it is likely the current international outer space treaties to govern the space tourism is unable to deal with the question concerning the legal status of the tourists who travel to the outer space by the operation of the private companies, especially in the event of accident, which will give rise to legal questions relating to the duty of states, whether states shall regard the space tourists as the same way of astronauts, and shall render them all possible assistance, distress or emergency landing on the territory of another states or on high seas, in accordance with the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies , and the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space .

3. The International Space Laws relates to the Space Tourists

3.1 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (The Outer Space Treaty).

⁶ A Ferreira-Snyman, “Legal challenges relating to the commercial use of outer space, with specific reference to space tourism” P.E.R.: Vol.17: No. 1 (2004). 3-4.

The Outer space Treaty Article I, laid down the principle that the outer space, including the Moon and other celestial bodies, shall be the province of all mankind and free for exploration and use by all states without discrimination, and shall be carried out for the benefit, and in the interests of all countries. In addition the act of states to explore and use outer space, it includes the act of their national activities that carried on by government agencies or by non-governmental entities. As a result, the space tourism regards as one of the national activities carry on by non-governmental entities.

Article V, paragraph 1, provides that "States Parties to the Treaty shall regard astronauts as envoys of mankind in outer space and shall render to them all possible assistance in the event of accident, distress, or emergency landing on the territory of another States Party or on the high seas." Although the Outer Space Treaty states simply that astronauts are to be rendered all possible assistance by state parties to the treaty but does not provide a definition for the term "astronaut", and as a result it is unclear whether or not this provision applies to a space tourist who clearly has not received the training of a traditional astronaut.

3.2 Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space (The Rescue Agreement).

The Rescue Agreement containing more specificity and detail than the rescue provision in Article V of the Outer Space Treaty. While the Outer Space Treaty does not provide a definition for the term "astronaut", and as a result, it is unclear whether this provision applies to space tourist. The Rescue Agreement adds some clarity to the issue by referring to the "personnel of a spacecraft" rather than "astronauts".

The Rescue Agreement states that any state party who aware that the personnel of a spacecraft are in distress must notify the launching authority to the Secretary-General of the United Nations. It essentially provides that any state that is a party to the agreement must provide all possible assistance to rescue the personnel of a spacecraft who have landed within that state's territory, whether because of an accident, distress, emergency, or unintended landing. However, this phrases again leave uncertain whether a space tourist would be considered as a part of the "personnel of a spacecraft".

4. Analysis

4.1 The rights of space companies to explore and use of outer space, including the moon and other celestial bodies.

The Outer Space Treaty article I, paragraph 1, states that "The exploration and use of outer space shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind", and the paragraph 2 states that "outer space...shall be free for exploration and use by all states without discrimination of any kind...and there shall be free access to all areas of celestial bodies." This article insists the outer space is the province of all mankind and laid down the rights of states to freely explore, access and use outer space in the peacefully purposes. Nevertheless, the article I uses the word "states" not mentions to the rights of private sectors, it is questionable about whether the article I recognizes the rights of private sectors itself can explore and use outer space.

However, in article VI of the Outer Space Treaty provides that "States parties to the treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities..." Therefore, when we examine article I and VI altogether, it should interpret that not only states can explore and use outer space, but also the private sectors (non-government entity) has recognized the rights as well.

In this instances, the Outer Space Treaty specifies the responsibility of the states over their national activities in outer space. In the present, there are so many private companies have been doing business involve space tourism⁷ i.e., Virgin Galactic announced its plans to take tourists on a 90 minutes long journey after the success of launching SpaceShipOne to the sub-orbital. Space tourism operator, XCOR Aerospace, is developing a rocket-propelled winged vehicle, the Lynx, for passengers who wish to experience an individualized half hour long sub-orbital flight by sitting alongside the pilot and traveling to an altitude of 100 kilometers. Armadillo Aerospace has planned to develop a sub-orbital two-seater space vehicle called Hyperion. The Blue Origin develops a capsule-style spacecraft for space tourism. Excalibur plans to place tourists into orbit in the Russia-made space capsule etc.

⁷ A Ferreira-Snyman, "Legal challenges relating to the commercial use of outer space, with specific reference to space tourism" P.E.R.: Vol.17: No. 1 (2004). 3-4.

4.2 The Ambiguity of the word “personnel of a spacecraft” in The Rescue Agreement.

In accordance with the title and preamble of the Rescue Agreement refer to "astronauts", while the text of the Agreement employs the broader term "personnel of a spacecraft". However, the Rescue Agreement lacks of the definition of "personnel of a spacecraft", which may include astronauts, space engineering and scientists and, it is questionable whether the conception of "personnel of a spacecraft" refers to space tourists as well.

Nevertheless, in the time of drafting the Rescue Agreement, there was only a relatively small number of countries had space-faring capability. It had not been anticipated that humankind would engage in commercial space tourism activities, as a result the law-maker definitely did not deal with the specific area of space tourism⁸, especially the legal status of space tourist. So this ambiguous term of "personnel of a spacecraft" leads to question of whether states have a duty to rescue space tourists as passenger on a spacecraft.

4.3 The Legal status of the Tourists in the Space Tourism

The Legal status of the space tourists is still questionable, whether the privileges and immunities of the astronauts will also be extended to the space tourists. Because the Outer Space Treaty, Article V recognizes astronauts as envoys of mankind and States have the legal binding to provide astronauts with all possible assistance in the event of accident, distress, or emergency landing on the territory of another state party or on the high seas, when the astronauts make an emergency landing, they must be safely and

⁸ Steven Freeland, op.cit., 4-5.

promptly returned to the state party of registration of the space vehicle. In this case, As Lyall and Larsen opined that "the term astronaut cannot easily fit the non-professional that is likely to enter space in the coming years whether, on a limited flight", which means the non-professional is refer to the space tourists who pay the money for traveling into outer space, they do not need professional skill and selection like the astronaut. Therefore they should not defined as the astronaut in accordance with the Outer Space Treaty.

However, the case of Dennis Tito who spent six days in the Russian section of the International Space Station, and Mark Shuttleworth who also spent eight days on the International Space Station respectively, the two cases should be considered whether they are the space tourist, and what is the legal regime applied when they were launched to outer space? When we examine the definition of the space tourism in board sense which "space tourism" has been defined as "any commercial activity offering customers direct or indirect experience with space travel" It is clear that while Dennis Tito and Mark Shuttleworth were groundbreaking, it most likely not the model of space tourism, because both of them were the guest of Russian government and therefore under a significant amount of government control.

Then, the secondly question is whether a space tourists would be considered as the personnel of a spacecraft in accordance with the Rescue Agreement, because it adds some clarity to the issue by referring to the personnel of a spacecraft rather than astronauts, and obliges the state party which receive information or discovers that personnel of a spacecraft are in distress must notify the launching authority to the Secretary-General of the United Nations. It provides any state that is a party to the agreement must

provide all possible assistance to rescue the personnel of a spacecraft who have landed within that state's territory, whether because of an accident, distress, emergency, or unintended landing. In this instances, the term "personnel of spacecraft" is broader concept, including astronauts, space engineers, and scientists. By using a broader concept in the text, the Rescue Agreement applies to broader categories of propel onboard spacecraft. Obviously, space tourists are not astronauts or personnel of a spacecraft in the literal sense⁹. Some scholars opined that the term personnel spacecraft have yet to be defined in international space law, however, given the humanitarian overtones in the rescue of such "personnel of an aircraft", it could be argued that these rescue obligations would extend as well to space tourists¹⁰. Notwithstanding, at the time of drafting of the Rescue Agreement, space tourism was not yet envisaged and the treaty were formulated with the interests specifically of the astronauts in mind, because when examine the title and the preamble of the Rescue Agreement, it refers to the astronaut, even though the text of the Agreement employs the broader term "personnel of a spacecraft". So, the space tourists should not consider as personnel of a spacecraft.

Nevertheless, in 2000, the participating Space Agencies in the International Space Station (ISS) project reached an agreement as to who was allowed on the ISS. This covered both "professional

⁹ Zhao Yun, "A Legal Regime for Space Tourism: Creating Legal Certainty in Outer Space". **Journal of Air Law and Commerce**: Vol.74: No. 4 (2009). 978

¹⁰ Stephan Hobe, Gerardine Meishan Goh and Julia Neumann, "Space Tourism Activities – Emerging Challenges to Air and Space law?". **Journal of Space Law** : Vol.33: No. 2 (2007). 372

astronauts/cosmonauts and space flight participants which included those on commercial, scientific and other programs, crew members of non-partner space agencies, engineering, scientists, teachers, journalists, filmmaker, or tourists¹¹. As a result of this agreement, it is likely a legal regime recognizes the status of the space tourists through the ISS members. However, It can be argued that the International Space Station is established by the political commitments among 16 nations, there is no legally binding on the ISS Agreement, and the agreement that reached in 2002 has been recognized the space tourists as space flight participants, neither refer to the astronaut, nor the personnel of a spacecraft.

5. Conclusion and Proposal

5.1 Conclusion

The space companies become the serious actors in outer space activities. However, the ambiguity of the international legal principle is concerned, especially in the legal status of the space tourist are questioning whether the Outer Space Treaty and The Rescue Agreement recognizes the space tourists as envoy of mankind like astronaut or the personnel of a spacecraft.

This paper analyzes that the space tourism is a commercial transaction between the space companies and the consumers, the space tourists are neither represent their country, nor the envoy of mankind. So, the rights and obligations of the party depends on the business contact. There are absent of international space law that deal with the legal status of the space tourist in the present because

¹¹ Steven Freeland, op.cit., 11.

it definitely cannot defined the space tourists neither the astronauts, nor personnel of a spacecraft in accordance with the Outer Space Treaty and the Rescue Agreement respectively. Nevertheless, there is an agreement of the participating Space Agencies in the International Space Station (ISS) project recognize the space tourists as space flight participants which means they are allowed to visit the international space station. However, the International Space Station is established by the political commitments among country members, and it is still questionable about the international legal regime which governs the other space tourists who do not travel to the ISS i.e., the Moon, the Mars or the other celestial bodies.

5.2 Proposal

The prospects for space tourists give rise to some interesting and difficult legal questions. It also opens up an exciting opportunity to develop an adequate system of legal regulation to deal with these activities. The existing international legal regimes covering space activities are not well suited to large-scale commercial access to space, largely because they were developed at a time when such activities were not a principal consideration in the mind of the drafters. The lack of legal clarity represents a major challenge and must be addressed as soon as possible.

The International cooperation through the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) should take action to reach the agreement about the international legal regime which governs the space tourism and space tourists. The new legal framework will make the confidence to all sectors which are going to engage in space tourism whether states, non-states entities, private companies or the space tourists themselves.

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Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space.