#### BRAZIL AND THE REGISTRATION CONVENTION

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# **ABSTRACT**

The paper analyses the evolution of the Brazilian position on the 1975 Convention on Registration of Space Objects Launched into Outer Space. It discusses Brazil's active participation in the elaboration process during the Convention: the decision not to sign the Convention in the terms that it was approved in the COPUOS Legal Subcommittee in 1975; and the current official Brazilian intention to adhere to the Convention. The paper tries to answer the following questions: What were the main concerns of Brazil during the elaboration process? Why did not Brazil sign the Convention? Why has Brazil decided to change its position? What is the importance of this decision to the current Brazilian efforts to introduce the Alcântara Launching Center into the international commercial launching market? The paper also includes some ideas for amendments to the Registration Convention, which have been discussed in Brazil on an academic level.

# 1. INTRODUCTION

During the 40 th Session of the Legal Subcommittee of COPUOS, which was held in Vienna, Austria,

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from April 02 to 12, 2001, the Head of the Brazilian Delegation informed the audience that the Brazilian Government had recommended the adherence of Brazil to the Convention Registration of Objects Launched into Outer Space (hereinafter referred to as REG) to the National Congress. REG was adopted by the UN General Assembly on November 12, 1974 opened (Resolution 3235). signatures on January 14, 1975, and has been in force since September 15, 1976. Currently, the REG is no longer open for signature, only for adherence. Brazil's adherence to the REG is the result of Brazilian space development, which has been closely overseen by the Ministry of Foreign Affairs, Brazilian Space Agency (AEB), as well the Brazilian Association Aerospace Law (SBDA). Adherence is also the result of changes in world affairs.

The Brazilian House of Representatives will define which commissions will analyze the recommendation of the Brazilian Government. The process will probably follow the normal procedures of the Commissions of Instice and Constitution, Science and Technology, and Foreign Affairs. After the approval of these Commissions. recommendation will be voted on by the Plenary Assembly. After that, the process will be sent to the Federal Senate, where it will follow the same

procedures. If the recommendation is approved by the National Congress, there will be a legislative decree sanctioning the adherence of Brazil to the REG. Finally, the President of Brazil will be able to declare to the UN the official adherence of Brazil to the REG.

It is not possible to predict the date for this official adherence, because there are many other proposals to be voted on by the National Congress. Actually, the date is not that important. The mere recognition of the REG's importance can be considered a great beginning.

Brazil has already ratified three of the five international agreements related to space law, namely: 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 (hereinafter referred to as OST); b) the Agreement on Rescue of Astronauts. the Return of Astronauts and the Return of Objects Launched into Outer Space (hereinafter referred to as ARRA); and c) the Convention on International Liability for Damage Caused by Space Objects (hereinafter referred to as LIAB). Moreover. Brazil has participated actively in all discussions about the pacific use of outer space and has been a member of COPUOS since the creation of this Committee in 1959. The fourth agreement entitled "Agreement Governing the Activities of States on the Moon and other Celestial Bodies (hereinafter referred to as MOON) has only 10 ratifications and 5 signatures to date. The REG was left unsigned for different reasons, but now is important for Brazil's continued growth in space activities.

Brazil is completing the Alcântara Launching Center (or CLA in Portuguese) where launching of space objects should be less expensive than other sites due to the predicted fuel

economy which results from its strategic geographical location<sup>1</sup>. The Brazilian Government knows that it must adhere to all five international agreements related to space law before it can use the CLA for commercial purposes.

Although Brazil continues to have serious reservations concerning the wording of the REG, the Government now believes that adherence to the REG is the best way to influence future changes in its text.

# 2. PARTICIPATION OF BRAZIL IN THE ELABORATION OF THE REG

The REG was first discussed during the Cold War, when the world lived under the constant threat of atomic destruction. At that time. activities were almost exclusively the monopoly of the USA and the former USSR. Other countries wanted the REG to require more strategic information in order to prohibit the use of space for military purposes. The OST had been written several years before for the same reason. Brazil was an active participant in the elaboration of both agreements (OST and REG).

Brazil and many other countries were disappointed with the final text of Article 4 of the REG because the general conditions of registry which it established did not preclude the launch of objects that could endanger mankind. The approved document fulfilled only one administrative function, which was to control the quantity of objects launched into outer space. It did not allow the UN General Secretary to evaluate the safety of the object to be launched. That frustration is reflected by the limited number of ratifications and signatures of the REG. While the OST, for instance, has 97 (ninety-seven) ratifications and 27 (twenty-seven) signatures: the ARRA has 88 (eightyeight) ratifications and 26 (twenty-six) signatures; and the LIAB has 82 (eighty-two) ratifications and 26 (twenty-six) signatures; the REG has only 45 (forty-five) ratifications and 4 (four) signatures<sup>2</sup>.

# 3. BRAZIL'S DECISION NOT TO SIGN THE REG

It is important to remember that at the time of the discussion of the REG and the approval of its final text. Brazil was governed by a military government. Therefore, issues involving national security and world peace received special attention. The wording of the REG was perceived to be against national interests. Moreover, incipient Brazilian space program did not require its approval. Nonetheless, Brazil has always wanted the accurate registration of space objects to ensure the peaceful exploration of outer space.

In his answer to an inquiry made by SBDA, dated January 12, 1994, the Brazilian Ambassador Henrique R. Valle, Head of the Department of Environment of the Ministry of Foreign Affairs, gave the following reasons for Brazil not to have signed the REG: "There is no doubt that the Registration Convention has established a more detailed international regime than any other for the registration of space Convention objects. The incorporated a lot of usual practices for the registration of space objects and has given internationally accepted expressions definitions to Launching State and Register State. The Convention is a result of the consensus that was achieved in the United Nations Committee for Peaceful Use of Outer Space - COPUOS, and it is a reflection of the common points among the members of that Committee, at that specific historical moment. However, the consensus is established only after a long period of debates and, generally,

the final result does not contemplate the interests of all countries. Brazil participated intensively in the elaboration phase of the text of the REG and, since the beginning of the discussions, it was desired that the States give detailed information of space objects and their missions, under the Registration Convention. Brazil understood that the information given by States would be the only way to define the purpose of a space object as well the risk that it could represent for mankind, especially for the countries with a low level of technology. Article 4 of REG just specifies five kinds of data which shall be given at the moment of the registration, which are: 1) name(s) of the launching State(s); b) the appropriate designation of the space object or registration number; c) date and place of the launching; d) basic orbital parameters, including 1- nodal period, 2- inclination, 3- apogee, 4perigee; and e) general function of the space object. Brazil and many other countries said that Article 4 could permit the omission of important information. They believed that a truly efficient registration system should require the launching State to give more information such as: a) rockets and other nonfunctional materials related to specific launching; **b**) significant changes in the orbital pattern compared with the original projected data; c) information related to size, shape, weight and freight of the launching vehicle; d) the disappearance of a space object due to the loss of orbit, a collision with another celestial body, or other circumstances; e) recuperation of a part of a space object; f) the reentry of space debris into the earth's atmosphere and its location; g) complete information even in the case of launching failure; h) submission of data related to the launchings that the Registration occurred before Convention; and i) detailed information

about the mission of the space object, as well as the specific references related to the radio-frequency used by registered satellites. The absence of a more detailed system of registration under the Convention was the reason why Brazil and many other countries did not sign the REG." <sup>3</sup>

Unfortunately, the registration of objects is merely space administrative act. Likewise. obtainment of an orbital position with the International Telecommunication Union - ITU - is just an administrative and formal process. According to Mrs. Tan Sri Nuraizah Abdul Hamid, the General Secretary of the Ministry of Energy, Communication and Multi Media of Malaysia, "the International Telecommunication Union has only two possibilities nowadays: to be a very strong and solid reference for its activities or slowly disappear." 4 How is it possible to ensure the exploration of outer space by all countries equally, independent of their stage of economic and scientific development, according to Article 1 of OST, if there is no which authority to to redress grievances?

The problem of ethics in space activities has grown because there is not a higher authority to regulate the use of space. While it is generally understood that space is a limited natural resource, for example, it has been used even for funerals with no objection<sup>5</sup>. Remember that the LIAB, in Article 14 and subsequent articles foresees a Claim Commission to work on indemnity requests. Maybe it would be possible to authority extend the of this Commission, or even to create another one. which could evaluate space mission objectives.

As it has been seen, Brazil and many other countries chose not to sign the REG because of insufficient requirements for information to identify a space object and its mission. This lack

of information is still a concern for Brazil

# 4. THE PRESENT POSITION OF THE BRAZILIAN GOVERNMENT

The Brazilian Government has decided to adhere to the REG and it has sent a recommendation to the National Congress to this effect, despite the continued desire to see improvements made in the Convention. It is also a necessary step in the commercial use of its launching facilities.

It is important to mention that President ofthe Brazilian the Association of Aerospace Law (SBDA) Pedro Ivo Seixas, suggested to the President of the Brazilian Space Agency (AEB) in a correspondence dated November 20, 2000, that Brazil adhere to the REG, giving three reasons for this change in diplomacy: *"I)* adherence to the REG is one of the necessary measures to create Brazilian legal framework for the CLA to enter in the global market of commercial launchings. Brazil must show other countries its unshaken fulfilling commitment to international rules related to space activities, as well as its strong decision to pass national legislation able to regulate the activities that will be held in CLA; 2) The mere message that Brazil will adhere to the REG will be a signal for the international community, especially for the companies which may become the CLA's customers, that the Brazilian Government is committed to providing an economical. safe. competitive option for commercial launchings; 3) the world political and strategic panorama that existed in the 70's that was responsible for Brazil's prior decision has changed".

The decision to adhere to the REG reflects Brazil's aerospace development. Brazil's adherence to the REG does not mean, however, that it

has abdicated its former position. The Brazilian Government believes that being a State Party of the REG will put Brazil in a stronger position to promote the review of the Convention's text, based on Article 9 of the REG which states that "any State Party to this Convention may propose amendments to the Convention".

It is important to note that Brazil has complied with REG regulations in accordance with Resolution 1721B of the UN General Assembly, dated December 20, 1961, by reporting information about its satellites to the Secretary General of the UN through its Ministry of Foreign Affairs and the Brazilian Space Agency (AEB) to demonstrate its fundamental support for the registration of space objects. These satellites include SCD-1 (Data Collect Satellite, launched in February 9, 1993) and CBERS-1 (China-Brazil Earth Satellite. Resources launched October 14, 1999). Brazil has not registered six other satellites for which it is liable, those being: a) Brasilsat S1. launched in February 8, 1985; b) Brasilsat S2, launched in March 28, 1986; c) Brasilsat B1, launched in August 20, 1994; d) Brasilsat B2, launched in March 28, 1995; Brasilsat B3, launched in February 4, 1998; and f) SCD-2, launched in October 23, 1998<sup>6</sup>. This lapse reflects the country's political and economic conditions during the period and not a diplomatic boycott of the REG.

There is, however, a growing awareness that Brazil must give special attention to its national legislation regarding space activities.

The Ministry of Foreign Affairs has sent a recommendation to the President of Brazil with the following reasons: "(...) 4- Adhesion of the States to the five international agreements has been encouraged by the UN General Assembly in Resolution 55/122 approved on November 6, 2000. 5-

Adhesions the Registration to Convention have increased to forty-five countries. Among the State Parties of the Convention, there are countries that have a solid space program; such as the USA. Germany, the Russian Federation, France, Canada, China, and India, as well as Latin American countries, such as Argentina, Chile, and Mexico (...) 7-The adherence to the Registration Convention may now occur because the Cold War is over. The Brazilian Association of Aerospace Law (SBDA) and other governmental entities, including the Brazilian Space Agency recommended have adherence of Brazil to the Registration Convention. The adherence of Brazil to Registration Convention approved by the Superior Council of the AEB, which includes representatives of the Brazilian airspace industry and most of the Brazilian Ministries. 8- The adherence of Brazil to the Registration Convention would confirm the country's commitment to the rules which regulate the exploration of outer space (...)".

There is also a proposed law under study by the Brazilian Ministry of Science and Technology to regulate space activities in Brazilian territory. The Brazilian Space Agency (AEB) has already approved regulations defining the procedures for permission to launch from Brazilian territory through its Rule # 8, dated February 14, 2001. This document also defines application. expedition. evaluation, control attendance, and inspection procedures at the launch facilities. According to the terms of Rule # 8, any company that wants to undertake space activities in Brazilian territory should present an application form, showing its legal and tax status, its positive financial balance sheet, and its technical qualification. In the case of international companies, they must also present a declaration that they are licensed by their respective countries to undertake space activities.

The Brazilian Space Agency (AEB) is authorized to establish conditions for transfer of technology, as well as to define the insurance premium required to cover any damages to third parties.

On July 10, 2001, the Brazilian Space Agency (AEB) also issued Resolution # 54 which created the National Certification System of Space Activities (or SINCESPAÇO, in Portuguese) to promote quality and safety in space activities that will be undertaken in Brazilian territory, as well as to strengthen Brazil's development in this area?

# **5. DISCUSSION**

One of the permanent items on the agenda of the Legal Subcommittee of COPUOS is the status of the five international agreements on space law. During the last session of the mentioned Subcommittee, that was held in Vienna. in the period of April 2 to 12, 2001, Greece proposed a new scope for that permanent item. One of the subjects of the Greek proposal was the examination of the reasons why some countries, members of COPUOS, had not signed international agreements. five Certainly, the intent of the texts is unquestionable. Enforcement is another matter.

Antonio Saraiva Guerreiro, of the Brazilian Ministry of Foreign Affairs, addressed the efficiency of the five international agreements to avoid the military use of the space in his statement: "If we consider the relation between the number of satellites for military purposes and the number of civilian satellites around the Earth, we will see that outer space is one of the most militarized environments to which mankind has access. From this point of view, the five international agreements seem to be just paper. On the other hand, to date, no weapon has been put in orbit and no space object has been

damaged as a result of military actions. It would be fair to think that the absence of military aggression in outer space is the result of the efficiency of the five existing international agreements". The five international agreements have had mixed results in preserving space for peaceful purposes. There have been no space battles, but the potential for one is obvious

The Greek proposal was approved by the Legal Subcommittee of COPUOS, so there will be a good opportunity to verify if the legal framework is able to solve current problems involving space activities. The discussion will continue during the next meeting of the Legal Subcommittee of COPUOS in 2002. Many things have changed since the OST was approved which need consideration.

From a legal point of view, the launching of an object into outer space has become a complex proceeding. While space exploration used to be the domain of individual exclusive governments, nowadays it generally involves large private companies, operating in different countries with different laws. Obviously, when the five international agreements were first issued, we could not predict such complexity involving governments and private business.

In the specific case of REG, its text needs modifications because it does not address these current problems. Ricky Lee, a Lawyer at Minter Ellison, Canberra, and Lecturer at the Western Sydney University, from Australia, has said: "Curiously. the Registration Convention only allows for one state to be the state of registry. In essence, this means that only one state can exercise satellites",9 iurisdiction over the Wálteno Marques da Silva, a Lawver of the Brazilian Space Agency (AEB), has noted that "a Launching State, which has participated in a joint launching involving different countries, will not

always be the State of register. On that occasion, under the terms of the Registration Convention, the States can agree on which one will be responsible for the registry. But a State that did not participate in the launching [which is the case of countries that purchase satellites] will never be the State of registry" 10.

As it can be seen, the REG does foresee the possibility not transferring the registry. So, if a country that has registered a space object sells this object to another country, the original owner will continue to be responsible for this object. This kind of business now happens frequently. The REG says nothing about commercialization of satellites.

Another problem is the absence of ethics in space activities. The example mentioned Brazilian bv Professor José Monserrat Filho is indicative: "One case is always first remembered as the patent manifestation of the problem. In 1990, the Tonga Kingdom (an archipelago of Polynesia in the Pacific Ocean and an independent country since 1970 with 700 Km2 of area, or half of the area of the city of São Paulo, and a hundred thousand inhabitants) requested 16 orbital positions from ITU and obtained 6. Actually, the King of Tonga was induced to do this by Tongasat Ltd., a company created by an American entrepreneur. He was the first man to discover the gold mine in proceedings adopted by ITU. Tongasat has rented a position to Unicom and another one to Rimsat, both North companies. American The positions were auctioned for US\$ 2 million per year. Intelsat has denounced the case as a violation of ITU's rules, as well an attempt to transform the process registry into a process commercializing geostationary orbits. By the way, Tonga did not hide its purposes of renting, selling

commercializing orbital positions. Tonga said openly that the orbital positions that it was requesting exceeded its necessity. However nothing happened. Tonga's case was just an example of an anomaly that has spread in space activities. Nobody, especially the world powers, spoke out against Tonga's procedure, simply because 'in a home that has had a hanging, nobody talks about the rope"11.

The absence of "High Authority", similar to the Claim Commission referred to in Article 14 and subsequent articles of the LIAB, makes it difficult to avoid this practice of using a "flag of convenience", in which developing countries are used to fulfill the interests of large private companies. It is important to note that some developing countries accepted being used as "flags of convenience" as a form of obtaining some benefits from prosperous space activities, which otherwise would be out of their technological reach.

Some developed countries have proposed model legislation that could be adopted in writing national laws in order to avoid "flag of convenience" abuse. In an interview published by the SDBA's Magazine. Dr. Kai-Uwe Schrogl, who is the President of the Workgroup of the Legal Subcommittee of COPUOS on the "Launching State", said: "Brazil, particularly, can help to convince the developing countries that the flag of convenience syndrome in space activities must be avoided. This syndrome occurs in the maritime services and in countries which have fewer regulations and, consequently, less protection of common interests and which. therefore, allow private companies buy government to registrations."12

A possible solution was presented during the 40<sup>th</sup> Session of the Legal Subcommittee of COPUOS by COMEST (World Commission on the

Ethics of Scientific Knowledge and Technology), an organism established by UNESCO in 1998. The possibility of the creation of a "High Authority" on outer space activities was mentioned in the COMEST paper. Reporting on its first meeting the COMEST paper stated: "The question as to whether space resources were part of the Common Heritage of mankind was raised. In this regard, while taking into account the difficulty of defining strict rules on the matter, the suggestion was made that the experience acquired in the domain of the law of the sea could be drawn upon to assess the expediency of setting up a High Authority which could organize the use of space for the benefit of mankind" 13.

# **6. SOME CONCLUSIONS**

Fortunately, major problems involving space objects have not arisen, but the legal framework should be able to foresee them. Problems already exist which require immediate attention. National laws have been used as an ad hoc solution to overcome the deficiencies of the five international agreements. Why not amend the five international agreements to deal with current necessities?

The of texts the five international agreements are not able to solve current problems in their original forms. In the particular case of REG its text must be changed in order to foresee the possibility of transferring property when an object launched into outer space registered by a country is sold to another one. There should be some way of controlling the private use of space because it is a limited resource. Some kind of "High Authority" is needed.

Curiously, the Cold War is over, so it should be easier now to amend the five international agreements. However, the dispute between the two world powers has given way to the dispute among large private corporations of developed countries. The companies are worried that a new legal framework may affect their interests. It is important to remember that the UN's main purpose is to promote world peace and justice. Brazil supports a careful discussion of methods that ensure the safe, peaceful, equal access to space.

In spite of its modest space program, Brazil has been present in the most important discussions relating to the peaceful use of outer space. Indeed, the adherence of Brazil to REG will consolidate its presence in the international space scenario. Brazil will then be able to contribute more effectively to the revision of the five international agreements, especially the REG.

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