

NATIONAL SPACE LEGISLATION

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INTRODUCTION

Space activities have historically been restricted to governmental entities. Within the early decades of the time solely states had the technical and monetary capabilities to hold out the exploration and use of location. Non-public actors were long excluded from it. On one aspect, owing to strategic and political reasons, governments were hesitant to permit anyone aside from their own military or governmental house agencies to be concerned in space-related affairs. On the opposite aspect, the large monetary commitments needed to undertake any quite operation in house deterred potential non-public investors from coming into the house sector. Moreover, the legal framework to manage non-public activities in house was mostly inadequate.

However, within the 1980s and 1990s non-public operators started coming into the house market. This was principally owing to the requirement for states to seek out further sources to finance house activities. Indeed, already within the late 1970s, governments started reducing their house budgets, and other, ideally non-public, monetary means that had to be secured to support house comes to boot, technological advancements and therefore the reduction of prices contributed to draw in non-public investors towards location.

Initially, solely public-private partnerships, for instance semi-permanent cooperation between the general public and personal sectors to execute comes generally within the hands of the general public sector, were organized. Later, entirely non-public undertakings appeared, though up to currently they continue to be a restricted variety.

Importantly, the privatization of house activities has gone hand in hand with its exploitation. Loosely, the term “commercialization” refers to creating cash and profits. Within the context of house, it is often meant because the use of apparatus sent into or through location to produce product or services of com- metrical price.

The USA was the primary country to embrace the exploitation of location, largely once the collapse of communism within the early Nineteen Nineties. Now-a- days, because of the increasing civilian application of house technologies and therefore the globalization of the economy, the privatization and exploitation of house are getting key parts of contemporary house activities.

The growing privatization and exploitation of house activities created new legal challenges to house law. Above all, that of adapting a legal framework developed having in mind states because the main house actors. It shortly emerged that the formulation of national house legislation was the foremost appropriate instrument to realize this goal. This selection was mostly owing to the thought that inter- national house law needs states to make sure that national house activities area unit in line with the basic house law principles. Thus, it appeared additional logical for every state to on an individual basis regulate the involvement of their nationals in house undertakings instead of developing new internationally united rules.

Several states have up to now enacted national house laws and laws. These tend to disagree in their scope and content. The variations area unit the consequence of the characteristics, extent and degree of house activities effectively being dispensed below the direction of a specific government.

The following sections area unit organized as follows. First, the analysis of why national house legislation is enacted and therefore the problems that such legislation unremarkably influence is going to be provided. Second, a couple of samples of national house legislation are going to be given. And eventually, specific areas associated with house activities from a national perspective, specifically export management, are going to be self-addressed.

ISSUES IN ENACTING LEGISLATION

Several reasons can be enumerated to explain why a growing number of states have been enacting national space legislations. First, activities in outer space are inherently hazardous. In order to prevent harm caused by space operations carried out by private entities, a mechanism to supervise and control them is needed. Second, states need to make sure that private subjects, while operating in space, do not violate a nation's international obligations or undermine its

national security and foreign policy interests. Third, the international legal regulations for space activities and, in particular, the Outer Space Treaty, the Registration Convention, and the Liability Convention, impose numerous obligations on governments that cannot somehow be transferred to private entities. These obligations make it necessary for countries to adopt national space legislation.

Authorization and Supervision of National Air space activities

Article VI of the space treaty is that the most relevant provision of the U. N. area treaties regarding the participation of personal operators in area activities. It creates a special link between non-public entities and their states, by creating the latter internationally accountable for the area activities of the previous. Though indirectly requiring the adoption of national area legislation, its sensible implementation has led many states to try and do thus.

The first sentence of Article VI of the Outer Space Treaty reads as follows:

“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, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. “

This sentence makes clear that nations bear international responsibility for national area activities, each dispensed by governmental agencies and non- governmental entities. Within the context of Article VI, the conception of “responsibility” features a completely different which means than the one commonly given to that underneath general international law. Normally, a state bears ‘direct responsibility’ just for acts somewhat directly because of it. Instead, underneath Article VI, a state is accountable for all area activities dispensed by non-public entities falling underneath its jurisdiction. Furthermore, states should make sure that non-public area activities square measure conducted in compliance with the obligations set down within the OST.

The second sentence of Article VI explains however states will truly perform this task, because it provides that: “The activities of non-governmental entities in space, as well as the Moon and different celestial bodies, shall need authorization and continued supervising by the acceptable state Party to the accord.” consequently, states should authorize and unendingly supervise the

area activities of non-governmental entities. Thus, it's evident that, whereas non-public subjects square measure entitled to hold out activities in space, they will solely do thus if they receive authorization from their state.

To conclude, so as to satisfy their international obligations, states should set forth a mechanism sanctioning authorization and supervising of non-governmental area activities. Article VI doesn't directly need the enactment of national area legislation, however ultimately this has emerged because the best resolution to manipulate the authorization and supervising of personal activities in space. Finally, it ought to be stressed that the scope of national area legislation isn't essentially restricted to the implementation of Article VI of the space accord, however it should serve different functions, like ensuring that non-public activities suits safety standards and rules on scrap mitigation and hindrance also as guaranteeing that they are doing not interfere with security and policy interests of a state.

Registration Convention

International area law needs countries to register objects started location at the international and national level. This demand, 1st ordered down in U. N. General Assembly Resolution 1721 of 1961 so considerably perennial in Article VIII of the location accord, has been regulated very well by the 1975 Registration Convention.

The Registration Convention indicates the kind of data that shall be provided by a state for its inclusion within the U. N. registry. So as to be ready to send the specified data, a state has to place in situ a system establishing however and once an area operator can furnish this information. It's solely upon receipt of such information that the state is within the position to transmit them to the U. N. Secretary. Normally, such a system is about up in specific provisions of national area law. Additionally, a national written account should be established, the contents of that stay at the discretion of the state. The institution and functioning of the national written account also are provided for in national area legislation. The Outer Space Treaty establishes that "a State on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body. The Registration Convention elaborated upon this principle and structured a dual system of national and international registration. The Registration Convention obliges States to create a national registry. In this respect, it prescribes that "when a space object

is launched into earth orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain”.

As with the implementation of the authorization and continuing supervision principle, this does not necessarily imply the obligation to pass domestic law to create this registry. Therefore, States are free to implement the registry by means of several legal mechanisms. The Registration Convention also contains norms which specifically remit certain formal and procedural issues to the States. In this respect, it sets forth that "the contents of each registry and the conditions under which it is maintained shall be determined by the State of registry concerned?" Therefore, there are no international constraints with respect to the form of the national registry. Thus, States can create a new independent registry, can incorporate the space object registry within other national registries or even require a private organization to operate the registry.

The Registration Convention has not determined the moment when States must create the space registry. It says simply that each launching state has to inform the Secretary-General of the United Nations of the establishment of the registry. This has led to the interpretation that States may establish their registries whenever they are in a position to use the registry on a frequent basis.

Liability Convention

International house law establishes that a state is internationally accountable for injury caused by the objects it's launched in space. This principle is set down in Article VII of the space accord and any careful within the Liability Convention.

National space legislation cannot modify in any means however a state's international liability is regulated within the house treaties. It is, however, fascinating to examine however it organizes the relation between a state and also the non-governmental entities within the context of liability. The state that has approved the house activities of a non- governmental entity remains primarily accountable for the injury caused by an area object operated by such an entity. Yet, sometimes a government establishes a right of recourse against that entity if the previous has paid compensation for injury caused by the latter. National house legislation usually incorporates this principle and lays down the stipulations and conditions in keeping with that the proper of recourse is activated and exercised. moreover, so as to supply guarantees

that the quantity paid by the state can eventually be recoverable, national space legislation may force non-governmental entities to get insurance covering the launch or the operation of an area object.

In the USA this method has been organized as follows. The issue and transfer of launch and re-entry licenses for industrial launches is that the responsibility of the workplace of business house Transportation of the Federal Aviation Administration (FAA). License candidates, except for getting safety approvals from the Federal Aviation Agency, square measure obligated to require out insurance or otherwise prove their ability to catch up on liability claims brought by third parties or the U. S. government for injury to government property ensuing from the commissioned activities.

The amount to be lined by the insurance is that the “maximum probable loss,” that is decided by the Federal Aviation Agency. In relevance third party claims, this quantity shouldn't exceed \$500 million or “the most insurance on the market on the planet market at an inexpensive value,” whereas for governmental claims the cap is \$100 million or the utmost insurance on the market at an inexpensive value. just in case a 3rd party is victorious in transportation a claim that tiptop the licensee’s insurance, the U. S. government can cowl the extra quantity up to a complete claim of \$150 million. Article 1109 simply states that: "he who, by action or omission, causes harm to another, with fault or negligence intervening, is obligated to redress the damage caused¹. From this over- simplistic statement, the whole regime of fault liability has been constructed in Argentine law. Basically, liability arises when it can be proved that there is (i) a breach of a law, (ii) damage, (iii) fault or negligence of the defendant, and (iv) a causal link between the damage and the action of the defendant. Compensation may not be recovered².

Absent any of these elements, there is no civil liability. This kind of civil liability centres around the concept of fault, which requires that plaintiff prove that the defendant was negligent. This system clearly favours the doer of the action due to the fact that the burden of proof rests on the victim. This was in perfect consonance with the objectives of the industrial development at the time of the enactment of the Civil Code. The need to liberate the industry of excessive

¹ Argentine Civil Code, article 1109.

² A.A. Alterini, Lopez and Cabana, *Curso de Obligaciones*, 1986, pg. 96

burdens was considered essential for its development. In the case of a space accident, the likelihood of obtaining compensation in a dam brought under article 1109 would be practically non-existent³.

Under the civil responsibility doctrine, as delineated above, the only legal grounds for the recovery of compensation paid for damage caused by the actual doer of the wrong is the case of joint liability of co-authors. In this respect, article 1109 states that "whenever on account of joint liability, one of the co-authors of the wrong, paid compensation which exceeded its corresponding part, such co-author can file a reimbursement action"⁴ Therefore, in the case of damage caused, for example by a private Argentine company, where there is no fault of the Argentine state, there are no legal grounds for the Argentine state to recover compensation paid at the international level for damage caused by such company. Furthermore, even if there were legal possibilities for the recovery of compensation, the State should prove negligence of the entity that caused the damage, which on account of the standard required by article 1109, would be quite unlikely.

This system, supported the liability of the retailer, insurance, pledge of the state and "maximum probable loss," has influenced the drafting of many national house legislations adopted in recent years. As an example, the French national house act of 2008 provides that any operator shall have and maintain, for the amount of its house operations, insurance or another type of money guarantee. The operator is going to be completely accountable for injury caused on the surface of Earth or in airspace by an area object connected to a licensed activity. When the French government has paid compensation consistent to its international liability, it shall have the proper to create a claim for indemnification by the operator. However, the latter might enjoy a government guarantee that amounts to € 60 million.

DIFFERENT NATIONS, DIFFERENT LEGISLATION

United States:

³ N. Mateesco Matte, *Aerospace Law from scientific Exploration to Commercial utilization*, Toronto, 1959, pg. 159

⁴ Argentine Civil Code, Article 1109.

The United States has the most elaborate national space legislation in the world. The development of U. S. national space law has been closely linked with the actual conduct of space activities and with technological advancements. Every time technology enabled a certain space activity or the geo-political and economic situation moved in a new direction, a new piece of space legislation was adopted in the United States. This has been the case for the adoption of legislation on private space launches, remote sensing and commercial spaceflights.^[1] In 1958, NASA was established. It was put in charge of running the U. S. Civilian space program. This decision was highly significant, as it took the U. S. civilian space program out of the hands of the military. The act that established NASA has been amended several times in order to incorporate elements of contract, tort and insurance law, indemnification and intellectual property.

In 1984, the Commercial Space Launch Act laid down a licensing regimen for private space launches. Its goal was to favour, facilitate and support commercial space launches by the private sector. The act deals with the issuance and transfer of launch and re-entry licenses issued by the FAA. This system, including the related provisions on insurance requirements and compensation for third-party liability, has been previously described. The 1992 Land Remote Sensing Policy Act regulates the licensing procedures for private remote sensing activities. The act recognizes the fact that in this sector, government funding is still needed and that full commercialization is not reachable in the near future. The act is based on the idea that remote sensing data are important tools for several subjects and purposes and should, therefore, be made available easily and at low cost. On the other hand, it recognizes the commercial value of remote sensing data, by means of a data protection plan, and imposes restrictions based on national security considerations.

The Commercial Space Launch Amendments Act of 2004 introduced a number of provisions aimed at regulating the recent phenomenon of space tourism. The act requires commercial suborbital flight operators to make several written informational disclosures in order to obtain the informed consent of customers, the so-called ‘spaceflight participant.’ This is a necessary pre-condition to establish that the spaceflight participant accepts the risk inherent in the spaceflight and that he or she is not entitled to the benefit of liability insurance coverage. In 2012 a further amendment was enacted into U. S. law to extend the provisions for experimental licensing arrangements for commercial spaceplane launches.

Apart from these acts specifically addressing space activities, several existing laws from other areas are applicable to space activities. For example, the 1934 Communication Act as amended was declared to be relevant to private operators of space communications activities. Furthermore, there are many regulations that specify more concretely the applicable law to some space activities, such as commercial human spaceflight, remote sensing and U. S. participation in the International Space Station.

As it might appear from the above short overview, U. S. national space law is in fact a rather complex set of laws and regulations applicable to various space activities. In order to make U. S. space law more coherent and easily accessible in 2010 the House of Representatives passed a bill that introduced a new Title 51— “National and Commercial Space Program”—that collects together all existing space laws without modifying them. In order to assist the U.S. government in implementing Article IV of the Registration Convention, it is prescribed that each licensee of a launch service is responsible for or even prohibit a license in the event registering objects placed in space in the course of conducting activities authorized by its license, except for objects owned by a foreign entity or the US government. Registration of objects owned by a foreign entity is the responsibility of that foreign entity. The standards of article IV of the Registration Convention serve as the basis for the information to be provided by the licensee. Thus, according to US regulations, within 30 days after the launch, each licensee has to submit to the Office of Commercial Space Transportation the following data concerning any vehicle or other object it has launched into outer space:

- (i) the international designator of the space object(s);
- (ii) date and location of launch;
- (iii) final orbital parameters, including: (a) nodal period, (b) inclination, (c) apogee; and
- (iv) general function of the space object.

Russia:

During the Soviet Union’s tenure, no dedicated national laws regulating space activities existed. Instead, special resolutions and decisions of government and political bodies constituted the legal basis for operations in outer space. Only after the collapse of the USSR did the process of building up a properly structured national space legislation start in Russia.

The Federal Law on Space Activity of August 20, 1993, is the fundamental document of Russian space law. It gives the right to regulate space activities to the president of the Russian Federation, the Space Agency of the Russian Federation (Roscommon), and the Ministry of Defence. The Law on Space Activities establishes the procedure governing authorization for all space activities in the Russian Federation both for scientific and socio-economic purposes. An implementing regulation contains more detailed provisions on the kind, issuing, validity, suspension, and withholding of space licenses. Roscommon and the Ministry of Defence are empowered to ensure that authorized activities comply with safety standards and do not constitute a threat to the environment. With regard to liability, the Law on Space Activities sets forth a system of compulsory and voluntary insurance. Space operators are under an obligation to obtain insurance to cover damage to the health and life of cosmonauts, space infrastructure personnel and liability for damage caused to the life, health, or property of third parties. Voluntary insurance may be obtained to cover damage to space equipment and the risk of loss or damage to it. With respect to registration, any Russian organization that is exploiting a space object or is conducting or procuring its launch must provide Roscommon with related information one month prior to the actual launch. Seven days following the launch, information about the launched space objects must be transmitted to Roscommon. After enlisting in the national registry, Roscommon passes the information to the Ministry of Foreign Affairs, which communicates it to the U.N. Secretary General for inclusion in the U. N. Register. As head of the State, the President represents the Russian Federation in the conduct of international relations. In such role, the President has been entrusted with the direction and conduct of Russia's foreign policy and has been accorded primary treaty-making responsibility, which includes the negotiation and conclusion of international treaties, as ⁵well as the signature of ratification documents subjects of the Russian Federation, i.e., republics and provinces, have the right to conduct their own international and foreign economic relations with foreign states. As argued by a contemporary Russian publicist, "this provision implies that the subjects of the Federation are granted limited treaty-making power, at least for matters over which they⁶ has also reserved the ratification functions to the federal parliament. However, the Russian Constitution does not appear to be clear with respect to which treaties are subject to ratification.

⁵ Constitution of Russian Federation, 1993, article 80

⁶ Russian Constitution, article 106.

France:

Despite being one of the major space-faring countries France did not have national space legislation for a long time. Until June 2008, French space activities were regulated by general civil, administrative and criminal law, and by specific laws applicable to certain activities, such as broadcasting and telecommunication. In June 2008 France passed the French Law on Space Operations, which sets out a regimen regulating authorization and control of space operations pursuant to France's international commitments. In particular, the act:

- (a) establishes under which conditions a private operator may obtain an authorization to carry out space activities;
- (b) separates liability between the state and non-governmental entities; and
- (c) foresees sanctions to be imposed in case of non-compliance with authorization requirements.

A private entity is granted authorization to perform space activities only after the relevant state authority has reviewed its moral, financial, and professional qualifications and verified its compliance with safety, health and environmental standards. Authorization will not be given if the planned activity is likely to compromise national security and France's international obligations. Furthermore, authorized operators are obliged to comply with debris mitigation and prevention guidelines. The provisions concerning liability and insurance requirements have been previously described. The treaty making process in France is vested in the President of the Republic. The President negotiates, signs and ratifies international treaties. These functions, however, may be delegated to the Minister of Foreign Affairs. There are certain treaties, generally, those regarding changes in territory, peace treaties, treaties of commerce, and those related to the establishment of international organizations, which need legislative⁷ clearance before their ratification or approval.

⁷ French Constitution, 1958, article 52.

CONCLUSION

Under general Public International Law a State is responsible for any violation of its international obligations when it results from an action or inaction by the government of the State, its political subdivisions or any organ, agency, official or employee acting within the scope of authority. Therefore, a State is generally not responsible for the acts of individuals or other private entities. International responsibility is based on objective standards and the existence of damage is not a condition for the existence of international responsibility. Therefore, international responsibility acts as a tool to enforce standards of conduct imposed on States rather than as a means to allocate risks. The regime of international responsibility for space activities deviates drastically from the general norms of international state responsibility with respect to attribution, for States have been assigned international responsibility for national activities in outer space carried on not only by governmental agencies but also by non-governmental entities. Under the Outer Space Treaty, a State bears international responsibility for the activities over which it has the opportunity to exercise legal control, i.e., activities which are within the state's *juris action*, whether territorial, quasi territorial or personal. International state liability has developed rather autonomously from the doctrine of international responsibility and it is based on the proposition that absence of wrongfulness does not preclude the compensation for damage caused by an act of a State. This doctrine has been incorporated to the Liability Convention of 1972. The interpretation of the interplay between the responsibility and liability provisions of the Outer Space Treaty and the Liability Convention indicates that under the Liability Convention, States are liable for damage caused by the space objects of their national private entities. This applies even in the cases of States which have not ratified the Outer Space Treaty, since its responsibility principles are considered customary international Law.