

# The Concept of the ‘Launching State’ Revisited

## 발사국의 개념재고

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### Abstract

Commercialization and privatization of outer space has been developing to the extent that public space law regime established at the UN seems to be somewhat incompatible with the today’s commercial launching services. Thus, this paper analyzes, at first, the UN space treaties to specify the obstacles for promoting commercial use. The necessity of some covert amend-

ment of UN treaties is suggested through the national space legislation. Then three state practices are examined to propose a new concept of the “launching state” including the Sea Launch project, since the concept of the “launching state” is of the major importance to enact an effective national act to better accommodate UN space treaties to the present necessity.

## 1. Introduction

While the privatization of the use and exploration of outer space is developing, there is no denying that commercialization of outer space is in an premature stage, which is evidenced by the names of the major customers of commercial space activities: without having governmental agencies as customers, most parts of space industries today would almost certainly be in jeopardy, if not extinguished, except telecommunication and broadcasting. Though various elements could be concerned with such incomplete commercialization of outer space, one of the reasons seems inappropriate legal regulations governing space activities, internationally and nationally. Thus, this paper is to propose a certain legal measures to better promote commercialization and privatization of outer space in terms of international space law. The center of the analysis is commercial launch services among the established branches of commercialization of outer space, since it is the one area that is directly influenced by the public space law systems. In contrast, legal regime of space telecommunications, mainly governed by the International Telecommunications Union (ITU), would be more reasonably discussed in the sphere of telecommunication law, and that of remote sensing has to be dealt with, in addition to space law, international and domestic laws of intellectual property rights.

In order to propose some covert amendment of the existing space law sys-

tem, first, the UN space treaties are studied to specify the problems in the development of commercial space exploitation. Based on the study, though a departure from the existing space law, grant of nationality to “space object” is recommended, because only nationality clarifies the order of jurisdiction to enforce. Second, the concept of the “launching state” would be reconsidered in terms of state practices to accommodate the needs of today’s space activities. It is important to harmonize the both goals of fair share of responsibility and liability between the parties concerned, and of maximum protection of the victims arising from space activities. Reconsideration of the concept of the “launching state” is based on three extraterritorial launching cases including the “Sea Launch.” In examining the “launching state” concept, the new trend at the international organizations is touched upon when necessary, since Legal Subcommittee of the Committee of the Peaceful Uses of Outer Space (COPUOS) conducted a three-year study on the “launching state” concept, and the preliminary draft protocol of space assets has been drafted at UNIDROIT. Finally, as a conclusion, it is recommended that space-faring states should enact a national space law in which a revised and modernized “launching state” concept is inserted.

## **2. Responsibility and Liability in UN Space Treaties**

### **2.1 Outer Space Treaty (1967)**

#### **2.1.1. Five UN Treaties**

It is the COPUOS, a subsidiary organ of General Assembly, where five UN space treaties were adopted: Treaty on Principles Governing the Activities of

States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty) (1967), Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement) (1968), Convention on International Liability for Damage Caused by Space Objects (Liability Convention) (1972), Convention on Registration of Objects Launched into Outer Space (Registration Convention) (1975), and Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement ) (1979). Although only ten states are parties to the Moon Agreement as of September 2002, all space-faring states have ratified or acceded the other four UN space treaties.

### **2.1.2 Article VI and Article VIII of the OST**

Outer Space Treaty (OST), often treated as the constitution of outer space, provides that states shall bear international responsibility for national activities in outer space, whether such activities are carried on by governmental agencies or non-governmental entities and states are also responsible for assuring that national activities are carried out in conformity with the related international law (Article VI). Uniqueness of this provision lies in that states are responsible for the activities of non-governmental entities such as private enterprises; under the established rule of customary international law, internationally wrongful act of a state is perfected when such action or omission is attributable to the state. Conventions dealing with ultra hazardous activities may state that a state party has to ensure that the private operators under its jurisdiction shall bear absolute liability, but never stipulate the direct, and state-centered responsibility.

As a corollary of such international responsibility, states have the jurisdiction over their national activities. The State would exercise its jurisdiction when a space object is launched from its territory based on territorial princi-

ple (territorial jurisdiction), when a private person of its nationality, natural or corporate, engages in space activities, irrespective of the place, based on personality (nationality) principle (personal jurisdiction), and if a space object were accorded the nationality, over its space object and over any personnel thereof as a flag state (personal jurisdiction and quasi-territorial jurisdiction). Concerning the last case, it is not certain if jurisdiction over its space object could be maintained. With respect to the ship and aircraft, established rule of international law is as follows; such equipments are given nationality of the country where registration is carried out, thereby a state of registry, being a state of nationality, exercises state jurisdiction based on nationality principle as well as quasi-territorial principle. The problem, here, is that no nationality is accorded to space object, and therefore quasi-territorial jurisdiction cannot be enjoyed by a state of registry under customary international law.

The significance of the quasi-territorial jurisdiction, in international law, is that such fiction makes it possible to determine the hierarchy of the enforcement jurisdiction whenever the conflicts of state jurisdictions would occur: territorial jurisdiction overrides both quasi-territorial jurisdiction and personal jurisdiction, and quasi-territorial jurisdiction overrides personal jurisdiction. Article VIII of the OST, in part, solves that problem, providing that a state party "on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof" as long as such object remains in outer space. To the extent that states are parties to the OST, similar jurisdiction to the flag state jurisdiction based on nationality is effectively and lawfully exercised. While, as of September 2002, 97 states are parties to the OST, clear answer cannot be given as to whether it is a sufficient number that the essence of Article VIII has become a rule of customary international law. Considering the provisions of criminal jurisdiction provided for in the Civil Space Station Agreement (1988, amended in 1998 with the participation of Russia), the an-

swer seems to be given in the negative, or at least the question should remain to be answered, since quasi-territorial jurisdiction is not supposed to be exercised according to the 1998 agreement. A principle can be the principle, when it cannot be easily replaced. It appears that the ways and manners of exercising state jurisdiction in outer space is in the phase of being developed by treaty provisions according to the type of activity.

### 2.1.3 Provision 2, Article VI and Article VII

Provision 2 of Article VI stipulates that “the activities of non-governmental entities in outer space---, shall require authorization and continuing supervision by the appropriate State Party to the Treaty.” In the efforts to designate “appropriate State Party” (note that it is singular), several candidates have been discussed: e.g., state of registry, launching states (in itself having the possibility of several states), one of the launching state other than state of registry, and state of nationality of the non-governmental entities. However, there has been no one particular interpretation widely accepted. “[A]ppropriate State Party” might be a concept which could be decided by the state itself that actively tries to supervise a certain range of space activities through national space activities laws or administrative regulations.

As a result, it is safely pointed out that the relationship between states having responsibility, states holding jurisdiction, “launching state” (mentioned in detail in 2.2), and “appropriate State Party” remains to be solved, and that the existing provisions seems to imply that “appropriate State Party” is the state that has obligation to exercise the jurisdiction on authorization and continuing supervision, while states that are responsible for its national activities have the possibility of exercising their state jurisdiction.

## 2.2 Liability Incurred by “Launching State”

In the event of damage caused by space object on the surface of the Earth, a launching state shall be absolutely and unlimitedly liable (Art. VII of the OST, and Art. II & XII of the Liability Convention (1972)). The term “launching state” indicates four categories of states: (1) a state which launches a space object, (2) a state which procures the launching of a space object, (3) a state from whose territory a space object is launched and (4) a state from whose facility a space object is launched. When two or more states are under the category of “launching state”, which is expected to often take place according to the above-mentioned definition, they shall be jointly and severally liable for any damage (Article V of the Liability Convention).

The rule that the “launching state” is absolutely and unlimitedly liable for any damage on the Earth are, together with the rule that a state party is internationally responsible for the acts of its non-governmental entities, certainly not a preferable prerequisite for a private enterprise to embark on its space business. It is understandable that states tend to be most cautious, or even reluctant to give permission to a non blue-chip company to engage in, e.g., launching services, in fear of being regarded as a “launching state”, thereby held absolutely liable.

Among four kinds of the launching states mentioned-above, the definition of a state “which procures the launching” has no longer been sufficiently clear. When only governments and international organizations controlled launching facilities and vehicles, a state that formally asked another state to launch a state-owned satellite was naturally regarded as the state “which procures the launching.” Now, there seems no internationally agreed interpretation if a state whose nationality an owner/operator of a satellite enjoys is the state “which procures the launching.”

## 2.3 Article II of the Registration Convention

In addition to the interpretation of the state “which procures the launching”, relationship between the “state of registry” based on the Registration Convention and a “launching state” should be clarified. Where there are two or more launching states, they shall jointly determine which one of them shall register the object, and the state of registration shall retain jurisdiction and control over it and over any personnel thereof. (Article II of the Registration Convention and Article VIII of the OST). The question is, therefore, if a state of registry is regarded as a launching state and, accordingly, has to be held absolutely and unlimitedly liable. One example: satellite A is registered by state X. Later, A is sold to state Y in orbit, and following its purchase, Y registered A with its domestic registry as well as notified the fact to the UN. In that case, if a damage is caused on the Earth by satellite A, is Y supposed to be held liable as a “launching state”, since only one state of registry is chosen from plural launching states?

Moreover, further confusion could be brought up by the provision 2 of the Article II of the Registration Convention; it implies that by the agreements among joint launching states, a state other than that of registry could exercise jurisdiction and control. Thus, it could happen that a state of registry may not be able to exercise jurisdiction and control over the space object and over any personnel therein as well as that state of registry may not have participated in the launching activity. However, a state which have registered the space object could be treated as the only “launching state” (= “appropriate State Party”) among the plural launching states, and that both liability and responsibility may be pursued by the victimized state. That only 44 states being parties to the Registration Convention, compared with 82 to the Liability Convention, might result from the wish to avoid the unexpected and unnecessary obligation mentioned above.

Since the sale of private communications satellites to the other com-



pany/state in orbit and transfer of registration accordingly has become an everyday transaction these days, the relationship between the act of registration and the status of the launching state must be clearly indicated, if not categorically separated. After the discussion of the Legal Subcommittee (LS) of the COPUOS between 2000 and 2002, finally it was officially confirmed that the question was raised as to whether the act of registration of a space object under the Registration Convention itself implied acceptance of the status of the launching states and the possible liability. It is only the confirmation that a difficult problem exist, not a presentation for a solution. Three-year review of the "launching state" concept is not supposed to be interpreted as an authoritative interpretation of the key words of UN space treaties. Rather, it is expected that each state would solve the possible incompatibility between UN space treaties and the today's transactions by its state practices including national legislation.

## 2.4 Conclusion of Section 2

The study of the existing UN space treaties concerning commercialization of outer space confirms the following:

(1) States responsible for "national activities" are state of nationality of a private company, state of the place where launching activity is conducted, and the state of registry over the space object. Such states would exercise state jurisdiction based on territorial principle and personality principle.

(2) If Article VIII of the OST were to function as a device of introducing quasi-territorial jurisdiction, the hierarchy of enforcement jurisdiction in space activities would be determined.

(3) "Appropriate State Party" is the state which are under the obligation to exercise jurisdiction and control over its space activities.

(4) State of registry retains jurisdiction and control over the space object and over any personnel thereof. In case of joint launching, one of the

launching states becomes the state of registry.

(5) In case of joint launching, the state other than that of registry may exercise jurisdiction and control over the space object and over any personnel thereof based on internal agreement(s). ( “flag of convenience” )

Thus, should “appropriate State Party” coincide with the state to exercise enforcement jurisdiction and the “true” launching state among the several possible “launching states”, responsibility and liability system in the context of space law is to be clarified. Such clarification would be most reasonably accomplished by national space legislation; since the way for a state to fulfill its responsibility is to continuously supervise the activities within its territory of its nationals with “due diligence.” The criteria of authorization concerning private space activities as well as continuous supervision would be most effectively indicated erga omnes through national space activities act.

For example, a space activities act may require non-governmental entities to prove technological competence of a launching activity, financial ability to buy insurance to pay compensation to the third party, safety measures to the public health, public property and the environment, and compliance with the international treaties to which a supervising state is a party. Setting out of indemnification clause as a legal obligation by a private company based on a fair and transparent condition would certainly lessen the fear of a state on the uncertainty. Space Activities Act of Australia (1998) could be a good model for the state that has long started its space activities, but not holding a gigantic program and budget.

Possibly, if space-faring states agree to give nationality to their space object—although the criteria of the grant of nationality would be of difficulty to avoid “flag of convenience” as much as possible—, hierarchy of enforcement jurisdiction could be ensured among the like-minded states. That would be quite useful in the age of commercialization and privatization of outer space. Grant of nationality based on state registration and UN notification would be more reasonable than that of ownership or the mixture of

registry and ownership, because the Registration Convention has been successfully, at least to some extent, utilized since 1976, and the registry of “space assets” provided for in the preliminary draft Protocol on Space Assets to the Convention on International Interests on Mobile Equipment (2001) might be designated to the Office for Outer Space Affairs (Secretariat of the COPUOS) at the UN.

### **3. Designation of the True and only “launching state”**

#### **3.1 The needs of the reconsideration of the “launching states” concept**

It is not rare that the following states differ each other after around the early 1990s: nationality of the manufacturer of a satellite, nationality of the owner/operator of such satellite, the state in which such satellite is launched, the nationality of the launch service company, the state of registry and the state which engages in satellite control (telemetry, tracking and control: TTC).

As laid down in Section 2.2, each of the abovementioned states is not completely certain if it could be a state “which procures the launching.” Thus, in the multilateral launching services, internal agreements are often adopted so as to incur a fare share of responsibility and liability. The contents of such agreements seem to imply how the party concerned regards a certain act as a possible evidence of being a “launching state”. Three examples would be studied to reconsider the “launching state” concept.

#### **3.2 China-US Agreement (1989)**

The US government had to decide in 1988 if it should permit Hughes Space and Communications (USA) to manufacture telecommunications satellites for Australian company as well as Hong Kong based Asiasat (nationality: UK) irrespective of the condition that such satellites had to be launched by Chinese Long March rockets from Chinese territory. Finally, the permission of satellite export was given to Hughes, and the USA adopted three China-US agreements regarding commercial space launching not to compromise US interests: (1) Memorandum on International Trade in Commercial Launch Services (1988), (2) Memorandum of Satellite Technology Safeguards Agreement (1988) and (3) Memorandum on Liability for Satellite Launches (1989). The last Memorandum stipulates that China “assumes and shall compensate” USA “for any and all amounts for which the Government of the United States of America may be liable under the Liability Convention.” (Article 2)

Why the US regards itself as a potential state to incur liability, or “launching state”? All the US is concerned is that its nationals manufacture satellites, and it is not even the state of nationality of the satellite owner/operator; in that regard. The nationality of the satellite owners (Aussat and Asiasat) are respectively, Australia and the UK, which might be naturally seen as a “state which procures the launching.” One interpretation is that the US regards itself being potential “launching state” due to the fact that US personnel partially participate in launching services, including e.g., combining satellite with a launching vehicle to safeguard sensitive launching technology based on the safeguard memorandum. Another interpretation is as follows: while “launching state” is China, since all four states are internationally responsible for their national activities, the US might consider it wiser to be better prepared for the time when the state is thought to be a responsible party.

US experience might show that it is better to regard a state of nationality of a satellite manufacturer being a state “which procures the launching” as

long as such state and/or a manufacturer are concerned with physical launching activity. If national space law or policy so decides, then state to which the manufacturer belong could avoid the worst case through some arrangements with related states or through contracts with the manufacturer.

### 3.3 China-UK Exchange Note (1996)

The good example of the bilateral agreement is the 1996 Exchange of Notes between the UK and People's Republic of China concerning liability for damage during the launch stage of the Apstar-IA and Apstar-IIR satellites. Both parties agreed that with regard to the compensation for damage to other states or their nationals, China shall assume the full liability between them "from ignition of the launch vehicle to the separation of the satellite from the launch vehicle" (Article 3), and the UK shall assume full liability after that.

The logic would be as follows: as a launching state from whose territory and facility a space object is launched as well as a state which can exercise jurisdiction to enforce (territorial principle), China regards itself as the "appropriate State Party" to be fully responsible and liable for the damage in the first phase. Similarly, after the separation of the satellite from the launch vehicle, since Apstar IA and IIR belong to Hong Kong based APT Satellite Company Limited, which holds UK nationality, the UK has undertaken the status of a "launching state" as the state "which procures the launching." Also, the UK is the state which can exercise enforcement jurisdiction over the Apstar IA and IIR (quasi-territorial-like jurisdiction as a state party to the OST), and thus, as a true responsible state, the UK regards itself as the sole state to be held liable.

Such bilateral agreement may indicate that a state which plans to foster its commercial use of outer space should take the path to declare itself a "launching state" when its national owns/operates space object. Then,

states are to lay down the indemnification scheme in the national legislation, balancing the protection of the infant industries and fair share of obligation for them.

### 3.3 Sea Launch Project

#### 3.3.1 Launching State as “Which Launches a Space Object”

Sea Launch Company Limited, established in 1995 as a four states (US, Russia, Norway, Ukraine) joint venture led by US Boeing (40 percent), conducts launching services on high seas on board the Sea Launch (consisting of Assembly and Command Ship and Launch Pad Odyssey), the nationality of which is Liberia. Headquarters of Sea Launch had been at Grand Cayman Islands until the summer of 2001. Many actors being involved with this launch service project, which state is a launching state that could be held liable?

It is clear that there is no territorial launching state (the third category of the “launching state”). In addition, since Liberia is not a party to any of the UN space treaty, there must be no launching state “from whose facility” a launching is conducted (the fourth category of the “launching state”). Then, the remaining category is a “state which launches a space object” and a state which “procures the launching.” Although it is no state launches, but a joint venture launches for commercial purposes, based on Article VI of the OST, which requires each state to treat its non-governmental entity as if it were state organ, it may be interpreted that the state of nationality of the Sea Launch Company Ltd., should become a state which launches a space object (the first category). If it is possible, Grand Cayman being the British Crown colony, the UK was a launching state. It merits mentioning here, however, that the headquarters had been changed to Long Beach, California, by the summer of 2001. (The significance of the

headquarters change is touched upon in the later part in this section.)

Opinions differ considerably as to whether the nationality of a respective company of a joint venture Sea Launch could be a launching state. The present author is of the opinion that the extent of actual involvement has to be taken into consideration to judge if the US, Russia, Norway, and Ukraine could be a launching state which "launches a space object". That Sea Launch is given launching permit from the US government must be a decisive factor along with American Boeing invested 40 percent of the whole project in examining the extent of the involvement.

Sea Launch obtains launch licenses based on the US-Ukraine Commercial Space Launch Services Agreement (1996). Article II3 of this agreement provides generous launch conditions to an "integrated space launch service provider", a joint venture containing both Ukraine and American enterprises. To be evaluated as such provider, American enterprise has to lead a joint venture to the extent that it could retain "controlling interest" in the project concerned, and to obtain a launch license according to the US Commercial Space Launch Act (CSLA). Section 70102 (1)(c) of the CSLA, extending the jurisdiction to prescribe, states that any corporation, partnership, joint venture, association, or other entity which is organized or exists under the laws of a foreign nation is treated as a United States citizen as long as the "controlling interest" (as defined by the Secretary in regulations) is held by the US citizen, natural or corporate. Section 70104(a)(3) A, also, requires such fictional US citizen to obtain a US launching license when the launching is conducted both outside the US and outside territory of any foreign nations. One example of such place would be high seas, the case of Sea Launch launching.

To begin with, Boeing's 40 percent share in a UK company, would enable the US to judge "controlling interest" is involved, even if the US-Ukraine Agreement would not have existed. Accordingly, with or without the US-Ukraine Agreement, because of the contents of the CSLA, in any case,

Sea Launch must have had to apply for a launching license to the US government. That means the US is the “appropriate State Party” which has to firstly take responsibility to that project, irrespective if it is a launching state or not. Since as one of the conditions for Sea Launch to get a license is to obtain third party liability insurance up to \$50 million (Section 70112 (a) (1)(A)), and the US government would pay the difference up to \$150 million if a damage costs more than \$50 million (Section 70113), the US would maintain that it could protect the victim state and its nationals, either as a responsible state or launching state. .

As mentioned before, UK was the state of nationality for Sea Launch Company; therefore, UK was the prima facie launching state, if there is a “launching state” at all. UK Space Activities Act of 1986 required any UK national, irrespective of the place, to get a license from the government to carry on space activities (Articles 1 and 3). However, the UK abandoned to require its authorization from Sea Launch Company, for it decided that the Sea Launch fell on the case that British license was not necessary for the UK to fulfill its international obligations (Article 3(3)). However, the UK decision seems to have additional elements. While the UK has no substantial link to the Sea Launch project, the US had already stood firm as “appropriate State Party.” Also, the UK seemed to be in the view that avoidance of the unnecessary duplication of licensing procedure would be beneficial to foster still premature launch industry.

By the last summer, since headquarters of Sea Launch was transferred to Long Beach, California, USA. The UK has since been released from the possible launching state. Therefore, the possible candidate for a state “which launches a space object” has become the only USA.

### 3.3.2 Launching State as “Which Procures the Launching”

When private launching services did not exist, a state became the state



“which procures the launching” by formally asking another state to provide a launch services. At present, some states, including the UK, regards itself a procuring state when its national owns or operates commercial satellites. That has been in the process of widely accepted interpretation of “procuring”. The problem here, is if it is more convenient to add other kind of “procuring state” to better protect the victims and to better develop space industries. What if a state X is deemed to be a “procuring state” when its private company A manufactures a satellite to a company B (the nationality of B is Y) and A monitors the launching activity in the state Y or Z. (remind the case 3.1.) Also, what if a state X is regarded as a “procuring state” by granting a launching license in return of some conditions met.

In the Sea Launch case, the US gives launching authorization when Sea Launch satisfies the conditions set out in the CSLA, and continuously supervises thereafter based on the CSLA, which renders the US “appropriate State Party.” Thus, if, in the second case just mentioned, X is accepted as a “procuring state”, this would be a case that “appropriate State Party” coincides with a launching state; that is the very goal to be accomplished in the age of commercial use of outer space as mentioned in 2.4. The present author is of the opinion that the two examples should be treated as “procuring.”

Also, the present author thinks, if one category has to be chosen, the US in the Sea Launch project should be thought as a state “which procures the launching”, not a state “which launches a space object.”

However, it is also the question of the linguistic definition in some respect. Thus, it is of less importance to be too particular about in which category the Sea Launch should be put. What is important is to interpret the UN related treaties broad enough to come up with the today’s commercial needs.

### 3.3.3 No Launching State and the Responsibility of Appropriate State Party

It could also be judged that there is no launching state in the Sea Launch project. In that case, the US and the UK are responsible for the private space activities, respectively based on personal jurisdiction. Even before the summer of 2001, since the UK refrained from exercising jurisdiction to enforce, the US was the “appropriate State Party” and the first party to be responsible. In such case, although the liability of launching state cannot be employed, the financial preparation under the CSLA would stand proxy even if state responsibility cannot be proved by the lack of fault on the part of the US.

As a result, in this very Sea Launch case, the significance of considering the concept of the “launching state” is limited. However, in a multilateral project in which no state is equipped with the well-prepared liability rule to the third party victims, the concept “launching state” is decisively useful, since responsibility can be pursued based only on fault. Thus, it is strongly recommended that a state should be a “procuring state” provided that it is in some way or other concerned with the physical launching activity, and that it plays a role of “appropriate State Party” by granting the permit to conduct a space activities as well as supervising them.

## 4. Introduction of Phased and Separate Launching State: Toward the New Era

### 4.1 Launching State in Orbit

Although most of the accidents take place before the reach of the expected orbit, as long as the UN Space Treaties are concerned, once a state becomes a launching state, it will remain one to the extent the space object is operating in orbit. While some states, such as Australia and Brazil, are often used as a launching place because of a preferable location, is it reasonable if they should be held liable 15 years after the ignition of a rocket? On the other hand, state of registry is the state which exercises jurisdiction and control, and often becomes the state which exercises enforcement jurisdiction, thereby being a "appropriate State Party", it would be more reasonable in terms of compensation to the victims that the state of registry becomes the only launching states once the space object concerned is operating in orbit. However, one condition has to be met to realize such manner through national space law and/or policy between space-faring states: the state of registry is the state of nationality of the owner/operator of commercial satellite. Since Registration Convention invites a system of a sort of "flag of convenience", introducing the phased and separate launching state concept might be somewhat difficult. Here, in this section, based on some example, positive resolution is to be proposed.

### 4.2 State of Registry in Sea Launch Project

All states of registry with respect to the Sea Launch project are those whose nationality the owner of the satellite holds to this date. The following

is the record of the Sea Launch registration.

(1) March 28, 1999 An experiment satellite, thus no registration.

(2) October 10, 1999 DBS1R (later renamed DirecTV1R) of DirecTV (USA) (25947/99056A) state of registry is the USA.

(3) March 12, 2000 ICO1 of ICO Global Communications (UK) launching failed, thereby no registration. The Satellite Encyclopedia (TSE) recorded “Country of Origin/ United Kingdom” .

(4) July 28, 2000 PAS-9 of PanAmSat (USA) (26451/0043A) state of registry is the USA.

(5) October 21, 2000 Tyuraya1 Tyuraya Satellite Communications Company (UAE) (26578/00066A) state of registry is the UEA..

(6) March 18, 2001 XM-2 ( “Rock” ) of XM Satellite Radio (USA) (26724/01012A) state of registry is the USA.

(7) May 8, 2001 MX-1 ( “Roll” ) of MX Satellite Radio (USA) (26761/01018A) state of registry is the USA.

(8) June 15, 2002 Galaxy IIIc of PanAmSat (USA) not yet notified to the UN.

### 4.3 A Proposal

What is clear from the practices is that state of registry is the state which holds the biggest interest in the project, thereby it is not unreasonable such state is the single and the picked-up state internationally liable. (Also see in 3.2. In the second phase of launching activity, the state of registry, the state whose nationality the owner of a satellite enjoys, is the very launching state.)

However, there are some cases which cannot be fit in the manner just mentioned. In some cases, state of registry does not exercise jurisdiction and/or control over satellites. Taking into account that only seven states have enacted space activities laws, although depending upon the contents of tele-

communication and radio laws and regulations, there might be not a few states that do not exercise control over the satellite in orbit. One of the examples of “flag of convenience” cases is to be shown; China registers eleven iridium satellites which are owned by Motorola (USA) with the UN registry, but China also sent a note to the registry that declares not China but Motorola exercises control over iridium satellites. Such note must have the effect of public notice.

Thus, whenever registration does not mean exercising jurisdiction and control, it is proposed that a state of registry is still internationally liable as the only launching state unless the true state of control is notified to the UN registry. Similar device has been used with respect to aircraft based on Article 83bis of International Civil Aviation Convention.

#### 4.4 Prospective Space Assets Protocol

In order to further develop space commercialization, in addition to the technological development, constructing preferable legal regime would be a necessity, especially for the smaller private companies. One of such efforts is seen at the Institut International pour Unification du Droit Prive (UNIDROIT) since the end of 1980s, where the unification of security interests on mobile equipments has been pursued with respect to aircraft (airframes, aircraft engines and helicopters), railway rolling stock and space assets. Because the Convention on International Interests in Mobile Equipment (Cape Town Convention) was adopted and opened to signature in November 2001 along with the Aircraft Protocol, then the efforts has to be shifted to space assets and railway rolling stock.

That draft Protocol is to facilitate asset-based financing of space objects and other space property named “associated rights”, which contain not only space object (hardware), but also, e.g., licenses issued by a government and authority to control, use and operate orbital slot and radio signals (Draft

Article 2(a)). Should the Space Assets Protocol is in force, the ownership of a space assets could be easily transferred since security interests scheme is unified as much as possible under the existing legal system and lengthy court procedure could be avoided. Casual transfer of ownership might affect the existing international liability regime. One example: a company A obtained financing from a foreign company B for manufacturing, launching, and operating a satellite. That satellite was launched into space and state X, whose nationality a company A enjoys, registers such satellite. Later, following the declaration of default by A, by applying the Space Assets Protocol, the ownership of the satellite is transferred to B. Several years later, damage is caused on the Earth by such satellite due to the company B' s negligence in controlling. The problem is, under the UN space treaties system, launching state X must incur unlimited liability irrespective of the ownership.

Thus, the present author is in the view that the following contents be inserted in the Protocol not to encroach public order of space law now being covertly modified to today' s version; with the transfer of ownership of a space object, the state of register should be transferred to the state of the nationality that the owner of the object concerned enjoys. The LS of the COPUOS is going to be discussing the compatibility between the private Space Assets Protocol and Public UN treaties for some time under the agenda item 8, it is possible to cooperate with the UNIDROIT about the provisions to be inserted.

## 5 Conclusion

The national legislation should be used for supplementing the lacunae and ambiguous parts of international space law. Then in such national laws, the conditions should be set out when a state is not internationally liable, or what makes a state “which procures the launching”, as well as the indemnification scheme. Harmonized practices by space-faring states would constitute de fact standards with respect to (i) when a state become a “procuring state”, (ii) if the act of registration implies accepting the status of a launching state, and (iii) whether registration of space object amounts to granting nationality, by which quasi-territorial jurisdiction is employed.

For the effective harmonization, hence, it is desirable for states to have national laws the contents, inter alia, licensing provisions of which are similar. Adding to it, it is desirable that a license granted by a national law should be recognized by other “launching states”.