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Chapter Six

Crossing a Rubycon? The International Legal Framework for ISOs—Before and After Privatization

Frans G. von der Dunk

I. Introduction

The present chapter analyzes the activities of international satellite organizations (ISOs), former ISOs, and private satellite operators from the perspective of the four principal international space law treaties,¹ consisting of the Outer Space Treaty,² the Rescue and Return Agreement,³ the Liability Convention,⁴ and the Registration Convention.⁵ In addition, it considers a United Nations Resolution dealing specifically with Direct Broadcasting by Satellite,⁶ as it is one of the major categories of activities that international satellite organizations such as INTELSAT and EUTELSAT have traditionally undertaken, as well as the International Telecommunication Union (ITU), which oversees the international regime developed to deal with frequency issues.⁷

Analysis here will not deal with the general substance of these agreements, but only with the specifics they may provide for dealing with ISOs, as opposed to sovereign states, and ISOs now under private ownership. In particular, it will focus on the extent to which the transition from ISOs to supervisory IGOs-*cum*-private operators marks a watershed. While politically and economically this transition has often been characterized as a kind of “crossing of the Rubycon,” the question remains whether legally speaking that would be true as well.

2. The Outer Space Treaty and Non-State Actors

Turning to the 1967 Outer Space Treaty and its establishment of a baseline legal regime for outer space activities including satellite communications, this Treaty very clearly distinguishes between state actors and non-state actors. The second category can then be further subdivided into intergovernmental organizations and private operators.⁸ It is by addressing the crossing of the boundary between those two subcategories that some light might be shed on the effects of the Treaty's regime on the privatization process and vice versa, as well as on the way hybrid entities should be addressed from this perspective. The same general approach will also be followed with respect to the other treaties at issue, the aforementioned UN Resolution and the legal regime developed in the context of the ITU.

2.1. *Intergovernmental Organizations and the Outer Space Treaty*

The focus of the present analysis is on the privatization of a handful of organizations which in their original versions, as will be seen, were clearly intergovernmental in nature: INTELSAT,⁹ INMARSAT,¹⁰ and EUTELSAT.¹¹ While to that extent the analysis of intergovernmental organizations would also apply to such entities as INTERSPUTNIK¹² and ARABSAT,¹³ the absence of full-fledged privatization in the latter two cases causes them to be absent from this analysis. Although INTERSPUTNIK has more recently moved to a construct similar to the original structure of INTELSAT, INMARSAT, and EUTELSAT, where the actual satellite operators conduct the day-to-day management of the system as opposed to the ruling body consisting of the states themselves, this level of "hybridization" would still not qualify INTERSPUTNIK as a private operator.¹⁴

2.1.1. *"Intergovernmental Organizations"*

By way of Articles VI and XIII, the Outer Space Treaty contains two relevant clauses specifying that its regime applies to international *intergovernmental* organizations ("IGOs," which will be referred to as international *satellite* organizations or "ISOs," wherever, in view of the focus of the present analysis, IGOs undertaking satellite communication activities are specifically addressed), meaning that non-governmental international organizations ("NGOs") are not considered by those clauses.¹⁵

Both clauses furthermore deal with specific consequences following from the fact that relevant activities are carried out with the crucial involvement of an international intergovernmental organization. Interestingly, IGOs are viewed as mere platforms for individual states to cooperate, rather than as separate entities: the relevant cases are described as "where . . . [activities in the exploration and use of outer space] are carried on *within the framework* of international intergovernmental organisations."¹⁶ This rather subordinated legal status of IGOs is furthermore confirmed by the second paragraph, where "practical questions arising in connection with activities carried on by international intergovernmental organisations . . . shall be resolved by the States Parties to the Treaty either with the appropriate international organisation or with one or more States members of that international organisation, which are Parties to this Treaty."¹⁷

As such, states having a complaint about activities of an ISO are always entitled to refer to one or more of the member states of the latter, in case they do not wish to deal with the

ISO itself. This absence of a measure of true legal independence for ISOs in the international community of space actors is largely the result of reluctance on the part of the Soviet Union at the time to grant IGOs such independent legal personality, and its insistence on “classical” state sovereignty as the lynchpin for dealing with any legal issues pertinent to outer space.¹⁸

The same limited status for ISOs emanates from the other key article here, Article VI, which provides: “When activities are carried on in outer space . . . by an international organisation, responsibility for compliance with this Treaty shall be borne both by the international organisation and by the States Parties to the Treaty participating in such organisation.”¹⁹ Responsibility of an IGO without the possibility to refer (also) to its individual member states, apparently, was not a feasible option.

In other words, the concept of an IGO, whether involved in satellite communications or in other space activities, is clearly delineated, if not indeed defined, by its having sovereign states as members. This conforms of course to the general public international law concept of an IGO.²⁰ As a consequence of such membership and the essentially public character of its tasks, responsibilities, and activities, IGOs have an institutionalized system for participation of member state representatives,²¹ may be granted secondary competencies to conclude international agreements of a treaty-like nature,²² and enjoy certain functional immunities and privileges based on those of sovereign states and their diplomatic representations.²³

Thus, in spite of their hybrid character (Public Telecommunication Operators and private operators, such as COMSAT or KDD, as signatories to the underlying operating agreements being in charge of the day-to-day running of the organization as well as providing for the financing and the revenue-sharing mechanism), prior to their privatization INTELSAT, INMARSAT, and EUTELSAT were undoubtedly IGOs in the sense of the aforementioned Articles VI and XIII of the Outer Space Treaty. These ISOs were all composed of member states which were represented in the ultimate ruling body, and under whose control also the members of the chief governing body, consisting of representatives of the “signatories,” were designated.²⁴ Also, they had Headquarters Agreements and related Protocols on privileges and immunities in place with their respective host states: INTELSAT with the United States,²⁵ INMARSAT with the United Kingdom,²⁶ and EUTELSAT with France.²⁷

2.1.2. *The ISOs Post-Privatization*

The privatization process did not result in the complete elimination of IGO structures: INTELSAT as an ISO was replaced by the International Telecommunication Satellite Organization or ITSO,²⁸ INMARSAT by the International Mobile Satellite Organization or IMSO,²⁹ and EUTELSAT by EUTELSAT IGO.³⁰ ITSO, IMSO, and EUTELSAT IGO are still composed of member states as the ultimate bearers of competence to determine the legal structure, role, and personality of the organizations;³¹ and as such still undoubtedly qualify as IGOs. These three residual organizations continue to enjoy functional privileges and immunities, especially in their respective host states of the United States, the United Kingdom, and France.³²

In fact, it is merely the scope of tasks and competencies of these ISOs which has been greatly reduced when compared to their predecessors. With a view to the application of

the Outer Space Treaty, however, this does raise the question of whether these new IGOs are still materially impacted by the regime of the Outer Space Treaty, since Article VI thereof is concerned with “activities in outer space” and Article XIII with “activities in the use or exploration of outer space.”

ITSO’s main purpose is now simply “to ensure, through the Public Services Agreement (PSA), that the Company provides, on a commercial basis, international public telecommunications services, in order to ensure performance of the Core Principles.”³³ Article V of the ITSO Agreement further defines that purpose as “supervision,” imposing a general obligation that “ITSO shall take all appropriate actions” to that end. Similarly, IMSO is “to ensure that the basic principles set forth in this Article shall be observed by the Company,”³⁴ and as for EUTELSAT IGO, “the primary purpose of EUTELSAT is to ensure that the Basic Principles set forth in this Article are observed by the Company Eutelsat S.A.”³⁵ These are all, clearly, not “activities in outer space” in the sense of Article VI of the Outer Space Treaty.

By contrast, and as a consequence, in the case of ITSO “the international telecommunications satellite organization’s space system is transferred” to Intelsat,³⁶ in the case of IMSO it is Inmarsat which will henceforth operate the satellite system,³⁷ whereas in the case of EUTELSAT IGO, “Eutelsat S.A. will be established to operate a satellite system and to provide satellite services and for this purpose, EUTELSAT’s assets and operational activities will be transferred to the Company Eutelsat S.A.”³⁸

2.2. Private Operators and the Outer Space Treaty

While the Outer Space Treaty does not use the term “private,” essentially because of the aforementioned political issues the Soviet Union had with acknowledging legal personality of any other entities than states, it does without doubt encompass private actors in outer space such as operators of telecommunication satellites in the broader term “non-governmental entities” of Article VI,³⁹ as well as in the term “nationals” of Article IX.⁴⁰

2.2.1. “Authorization and Continuing Supervision”

Article VI provides for the main requirement applicable here to private satellite communication operators with the clause stating that “the activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorisation and continuing supervision by the appropriate State Party to the Treaty.” This clause is widely perceived to provide the most fundamental basis for national space laws and/or licensing systems for private space activities,⁴¹ noting at the same time that the precise definition of “the appropriate state” is still subject to discussion.⁴² Several authors in addition have claimed that, without such proper authorization and continuing supervision, private activities in space would actually be prohibited, as far as international space law is concerned, since Article I of the Outer Space Treaty expressly limits the freedom to explore and use outer space to states.⁴³

At the same time, Article VI determines that the state(s) whose national activities are concerned would remain responsible in any event, effectively comprising such activities if conducted by non-governmental entities on the same footing.⁴⁴ Thus, in case those activities would transgress the boundaries set by international (space) law, the state(s) concerned would have to be addressed for repairing such an internationally wrongful act

regardless of whether and to what extent such authorization and supervision had been provided. This, obviously, would include private operators of satellite systems for communication purposes.⁴⁵

Furthermore, it has been a comprehensive and uniform general practice for states not to question whether private activities in outer space conducted by operators within the jurisdiction of other states have actually been licensed by those states, nor is there any international custom of international public notification of granting such licenses. The resulting general absence of protests from states to cases where other states might have allowed such private activities to go ahead without any specific license or authorization constitutes a major argument for concluding that non-authorized and/or non-supervised activities do not violate any rule of space law by the mere fact of such lack of authorization and/or supervision.⁴⁶

Indeed, it would seem impractical for other states to merely call a state to account for not having (properly) authorized and/or continuously supervised certain private space activities if such space activities would not actually have violated substantive obligations under space law. Hence, the more appropriate view would seem to be that the freedom for states to explore and use outer space subsumes the corresponding freedom for their private entities, even if not authorized and supervised; but under no circumstance would such an absence of authorization and supervision detract from the state's responsibility for the private space activities at issue, and actually would enlarge the extent of the violation of relevant treaty obligations.⁴⁷ The absence of specific authorization and/or supervision from such a perspective could be read as a blank approval by the state to conduct the activities concerned, since it will be held responsible regardless; it (presumably knowingly) accepts the risk that its responsibility will be invoked, yet has not chosen to develop and/or apply any specific authorization and/or supervision regime.

It is once such activities come to be in violation of material rules of international (space) law that states concerned would invoke the responsibility of the relevant other state(s) in order to see the violation stopped and/or reparation provided. This key principle of international state responsibility goes back to the famous *Chorzow Factory* case of 1928, where the Permanent Court of International Justice stated that the fundamental legal consequence of state responsibility for an international wrongful act would be an obligation for the responsible state to provide for "reparation," such reparation usually taking the form of either *restitutio in integrum*, compensation (usually in case only of material harm) and/or satisfaction.⁴⁸

2.2.2. "National Activities (in Outer Space)"

The other major issue debated in the context of Article VI and its application to private actors concerns the scope of the concept of "national activities (in outer space)." Without detailing the many discussions on the topic and the many definitions or circumscriptions offered,⁴⁹ the current status as regards the definition of "national activities" lacks clarity on the international level. This leads those states that find themselves compelled to implement the authorization and supervision clauses of Article VI by means of national laws and/or

licensing systems to follow their own preference in applying such laws or systems to nationals (including companies with their respective nationality) and/or to anyone operating from their territory, and/or through still other channels for exercising jurisdiction.⁵⁰

Article IX of the Outer Space Treaty refers to the more limited context where states are aware “that an activity or experiment planned by it or its nationals in outer space . . . would cause potentially harmful interference with activities of other States Parties in the peaceful exploration and use of outer space,” in which case such states “shall undertake appropriate international consultations before proceeding with any such activity or experiment.” In other words, a specific obligation for states to consult with other states in certain scenarios involving their respective national companies (including in cases of satellite communication activities) is added to the all-encompassing obligation to be held accountable for the activities of those companies in case of transgressing the boundaries imposed by international (space) law in this respect.

2.2.3. *The Private Character of Intelsat, Inmarsat, and Eutelsat and Their Licensing*

There can be no doubt that Intelsat, Inmarsat, and Eutelsat are private companies. They do not have a membership of sovereign states but are principally owned by shareholders (among which may be found some public authorities, but in an essentially private capacity), and they do not enjoy any of the financing or immunity-related privileges that IGOs can enjoy.⁵¹ This means they are to be authorized and supervised, as far as Article VI is concerned, by “the appropriate State,” and under Article IX by the state whose “nationality” they carry (which under general international law used to refer to the state where the private operator is incorporated and headquartered).⁵² Since in all three cases the state of registration is identical to the state of headquartering, Intelsat (headquartered in Washington at least for its administrative and operational purposes, as was the old INTELSAT) qualifies as a US company, Inmarsat (headquartered in London, as was the old INMARSAT) as a British one, and Eutelsat (headquartered in Paris, as was the old EUTELSAT) as a French one.⁵³ With respect to Intelsat, it should be added that essentially it was the administrative headquarters, including the satellite operational control functions, which remained in the United States,⁵⁴ as the formal incorporation of the holding company has recently moved to Luxembourg from Bermuda, a UK dependency where it was originally established.

The United States thus applies its Communications Act of 1934,⁵⁵ as amended by the Telecommunications Act of 1996, as the national act providing for authorization and supervision in the sense of Article VI, to Intelsat. The Act provides for a licensing obligation of all persons using or operating “any apparatus for the transmission of . . . communications or signal by radio” from within the territorial or quasi-territorial jurisdiction of the United States.⁵⁶ The Federal Communications Commission (FCC), the US government agency which authorizes and supervises US communications activities and operators, specifically declared in 1970 that the Communications Act was applicable to satellite communications.⁵⁷

With reference to the two other countries formally involved in Intelsat, it should be pointed out that Luxembourg, the country of formal incorporation of the parent holding company,⁵⁸ does not have a national space law yet, which essentially makes application of

US national law as per the above undisputed. In the case of the United Kingdom, which does have its Outer Space Act,⁵⁹ there are no actual satellites deployed at the orbital locations and operating in the frequency assignments for which the United Kingdom serves as the Notifying Administration at this time, leaving any potential role for the United Kingdom in this regard in a relatively passive state.⁶⁰

In the case of Inmarsat, the United Kingdom does require Inmarsat to hold a license under the UK Outer Space Act, as it obliges any UK operator procuring the launch of a satellite, operating it or conducting any other activity in outer space to obtain a license in accordance with its terms.⁶¹ In addition, in view of the telecommunication activities conducted by its space system, Inmarsat is also required to comply with any relevant requirements under the UK Telecommunications Act; the mere existence of a license under the Outer Space Act does not take away such a requirement.⁶²

As for France, the privatization or restructuring of EUTELSAT, resulting in the establishment of the French company Eutelsat S.A., presented a major reason for recently enacting a national space law where none had existed before.⁶³ The new Act obliges Eutelsat to hold a French license, as it requires “any . . . juridical person carrying out a space operation” (which includes “ensuring the commanding of a space object during its journey in outer space”), if such operator is of French nationality, to be authorized by the French authorities under the Law.⁶⁴

2.3. *The “Boundary” Issue under the Outer Space Treaty*

From the above analysis, the essential boundary between application of the Outer Space Treaty to ISOs and such application to private companies becomes clearly visible. The main difference between the two categories under the Treaty itself, it may be noted, consists in the requirements of authorization and continuing supervision under Article VI and of consultation in cases of potentially hazardous activities under Article IX as far as the latter is concerned, although this may be more of a formal distinction. ISOs in practice will operate under some system of authorization and possibly also supervision by their member states—only, in this case, through their governing multilateral treaties and statutes instead of through a single-state licensing process. Similarly, Articles VI and XIII jointly make clear that states are also required to consult in appropriate cases targeted by Article IX since ISOs are principally viewed as “frameworks” for state activities, not as independent actors whose responsibilities are separate or to be separated from those of their member states.

In any privatization process, as far as such a formal distinction goes, the Rubycon is crossed the moment the entities in question no longer consist of member states.⁶⁵ At that point in time, they come to fall under a single state’s international responsibility as opposed to the joint responsibility of the member states—in the case of Intelsat, the United States; Inmarsat, the United Kingdom; and Eutelsat, France.

This single-state responsibility arises notwithstanding the continuing existence of ITSO, IMSO, and EUTELSAT IGO respectively and their exercise of legally entrenched control and supervision activities over the three now private companies, as such control and supervision remain limited to a few explicitly delineated public interest aspects.

Thus, ITSO can “take all appropriate actions, including entering into the Public Services Agreement, to supervise the performance by the Company of the Core Principles;” the

legally binding PSA with the company being the principal instrument for ITSO to make sure Intelsat will provide its services with “global connectivity and global coverage,” continue to “serve its lifeline connectivity customers” and “provide non-discriminatory access to” Intelsat’s satellite capacity.⁶⁶ Interestingly, at least for the first twelve years since privatization was realized the costs involved in running ITSO will be met “by the retention of certain financial assets at the time of transfer of ITSO’s space system to the Company.”⁶⁷

IMSO likewise has a Public Service Agreement in force with Inmarsat, spelling out the details of the obligations of the latter subject to supervision and control by the former.⁶⁸ The IMSO Assembly consequently is entitled “to take any steps or procedures necessary to ensure observance by the Company of the basic principles, as provided for in Article 4, including approval of the conclusion, modification and termination of the Public Services Agreement under Article 4(1).”⁶⁹ These basic principles oblige Inmarsat to ensure the continued provision of global maritime distress and safety satellite communications services, to provide services without discrimination on the basis of nationality, to act exclusively for peaceful purposes, to serve—at least in principle—all areas where there is a need for mobile satellite communications, giving due consideration to the rural and the remote areas of developing countries, and to operate in a manner consistent with fair competition.⁷⁰ Also IMSO is essentially funded by the company it is charged to supervise and control, at least to the extent of costs concerning the “establishment and operation of the Secretariat; the holding of Assembly sessions; and the implementation of any measures taken by the Organisation in accordance with Article 4 to ensure that the Company observes the basic principles.”⁷¹

Finally, EUTELSAT IGO once again has largely followed the path of ITSO, although here the Public Services Agreement has been labeled “Arrangement,” defined as “the Arrangement between EUTELSAT and the Company Eutelsat S.A. having as its purposes to define the relationship between EUTELSAT and the Company Eutelsat S.A. and their respective obligations and in particular to provide the framework that will enable EUTELSAT to oversee and ensure the observance by the Company Eutelsat S.A. of the Basic Principles.”⁷² These Basic Principles pertain to universal service obligations, pan-European coverage by the satellite system, nondiscrimination, fair competition, and due adherence to rights and obligations under international law such as the ITU Radio Regulations for the use of frequencies deriving from the operation of the space segment transferred from EUTELSAT IGO to Eutelsat.⁷³ EUTELSAT’s main organ, the Assembly of Parties, consequently has the mandate *inter alia* “to consider and to review the activities of the Company Eutelsat S.A. which relate to the Basic Principles,” “to ensure observance by the Company Eutelsat S.A. of the Basic Principles, in accordance with the Arrangement” and “to take the appropriate decisions in order to ensure continuity regarding rights and obligations under international law” as referred to before.⁷⁴ Also in the European context, the company basically has to pay: “The costs incurred in establishing and operating the Secretariat, including, but not limited to rent and associated costs of maintaining office premises, salaries and emoluments of staff, costs of organising and holding meetings of the Assembly of Parties, the costs of consultations between EUTELSAT and the Parties and other organisations and costs of applying measures taken by EUTELSAT under Article III to ensure that the Basic

Principles are observed by the Company Eutelsat S.A. shall be borne by the Company Eutelsat S.A. in accordance with paragraph a) of Article V, within the relevant ceilings set forth in the Arrangement.”⁷⁵

Thus, it may be concluded that in each case crossing the Rubycon toward privatization has resulted in the new operators now being subjected to formalized and explicit requirements as to their key international public duties, accompanied by substantial legal and jurisdictional tools for the revamped IGOs to ensure conformity with those requirements. By contrast, in the context of the ISOs prior to privatization such public duties were considered to be sufficiently guaranteed by the control of the totality of their member states through the governing bodies.

The explicit character of those public duties and the need to preserve them in a privatized environment may well turn out to be an interesting development not only in the specific context of those respective IGOs and former ISOs but also for the broader development of international space law, if only because the conflicts between commercial interests and general public interests are now more likely to lead to proper legal disputes requiring legal solutions, as opposed to being dealt with at an international political (member state) level.

At the same time it should be reiterated that the United States, the United Kingdom, and France remain the primary addressees of any question of legality of the operations of Intelsat, Inmarsat, and Eutelsat respectively. Beyond the core public duties addressed in the Public Service Agreements—which essentially concern entitlements for (certain) member states of ITSO, IMSO, and EUTELSAT IGO—these three states will be held accountable by third-party states. Here also any such disputes would more readily be handled in proper legal terms in view of the applicable domestic regimes of authorization and continuing supervision, including national space law.

3. The Rescue Agreement and Non-State Actors

3.1. Intergovernmental Organizations and the Rescue Agreement

Where the Outer Space Treaty specifically mentioned intergovernmental organizations yet did not acknowledge or grant them any substantive measure of independent legal personality, in elaborating Articles V and VIII thereof⁷⁶ the Rescue Agreement went one step further with a view to IGOs. It provided namely that “for the purposes of this Agreement, the term ‘launching authority’ shall refer to . . . , where an international intergovernmental organisation is responsible for launching, that organisation,” if three further conditions would be fulfilled:⁷⁷ (1) the majority of the IGO’s member states being parties to the Outer Space Treaty; (2) the majority of the IGO’s member states being parties themselves to the Rescue Agreement; and (3) the IGO issuing a formal declaration of “its acceptance of the rights and obligations provided for in this Agreement.”⁷⁸ Since the concept of the “launching authority” pointed to the entity principally enjoying the rights proffered by the Agreement,⁷⁹ this clause essentially allowed ISOs to become, to a considerable extent, equated to states for the purpose of the Agreement’s regime.

Neither INTELSAT, nor INMARSAT, nor EUTELSAT, however, have issued such a declaration;⁸⁰ in any case where these ISOs would have been interested in recovering a satellite

they would have had to call upon one or more of their member states, or through the contract with the launching authority upon such authority, to ensure these interests were being recognized and respected. This situation has persisted with ITSO, IMSO, and EUTELSAT IGO after the privatization of the operators was finalized, although the lack of direct involvement of these IGOs with the satellites and satellite operations themselves makes this a rather theoretical point.⁸¹ It would be hard to derive from the roles of ITSO, IMSO, and EUTELSAT IGO a status of “launching authority,” which after all is defined as being “responsible for launching” of the satellite at issue.⁸² As following from earlier analysis, ITSO, IMSO, and EUTELSAT IGO now act in a purely reactive mode to decisions on launching and operating satellites that are made by Intelsat, Inmarsat, and Eutelsat—and then only to the limited extent of ascertaining their compliance with certain international public duties.

Finally it should be noted that the equation of IGOs to states for the purpose of the Rescue Agreement is limited to the substantial obligations related to (rescue and) recovery of astronauts and spacecraft; the concept of the “launching authority” does not play a role in the context of any procedural issues such as the possibilities to amend the Rescue Agreement.⁸³

3.2. Private Operators and the Rescue Agreement

Contrary to the Outer Space Treaty, the Rescue Agreement does not make any reference to private parties, not even under a broad concept of “nongovernmental entities.” In addition to the general lack of perception that private enterprise might be interested in space activities and the political resistance of the former Soviet Union to legal recognition of private space activities, the absence of any reference to private parties was also due to the focus of the Agreement on manned spaceflight and assistance to astronauts, where such participation was expected least of all.⁸⁴

For private operators, this means that relevant legal rights and obligations are completely subsumed under those of the contracting state concerned as “launching authority,” consistent with the general approach on this set forth in particular in Article VI of the Outer Space Treaty.⁸⁵ In addition, the Rescue Agreement has been argued above to essentially constitute an elaboration of two specific Articles of the Outer Space Treaty.

As a consequence, on the side of claiming rights under the Agreement, the state(s) qualifying as the launching authority(ies) for a telecommunication satellite would have to take up the cause of the private operator in case the latter is seeking, for example, for return and recovery of its satellite. For Intelsat, at least the United States would be such a “launching authority” and “contracting party,” for Inmarsat the United Kingdom and for Eutelsat France.

In addition, however, possibly one or more other states might also qualify as “launching authority.” Take the example where Intelsat would choose to launch one of its satellites from Bajkonour, a Russian facility located on the territory of Kazakhstan. The concept of the “launching authority” has not been defined by the Rescue Agreement beyond the state or IGO “responsible for launching.”⁸⁶ Noting however that most experts tend to blend the notion of “launching authority” with the later one of the “launching state,” which *has* been defined by the Liability and Registration Conventions in greater detail,⁸⁷ any launch from

Bajkonour would make both Russia and Kazakhstan launching states and therefore might also qualify them as launching authorities for the purpose of the Rescue Agreement.

The only problem here would be that the Rescue Agreement throughout refers to the concept of “launching authority” explicitly in the singular. With, in the example given, the United States, Russia, and Kazakhstan effectively all sharing the “responsibility” for the launch, under a strict interpretation the question would arise which state would be the “most responsible” one so as to most logically qualify as the launching authority.⁸⁸ Or should the explicit singularity of the “launching authority” be considered effectively overridden, outdated by later developments regarding the possible plurality of the “launching state” under the Liability and Registration Conventions?⁸⁹

On the other hand, for those private operators that would find themselves confronted with complaints emanating from obligations following from the Rescue Agreement, the launching authority would be the relevant contracting party to the Agreement to defend against legal claims, although this would be largely theoretical. Private operators would not likely become involved in scenarios where they would be able to play a substantial role in “rescuing” or returning a satellite. At best, it could be imagined that a satellite operator would be the first to receive or discover “information . . . that the personnel of a spacecraft have alighted on the high seas or in any other place not under the jurisdiction of any State,” triggering the relevant obligations for the contracting party.⁹⁰

In such cases, it would seem to be exclusively the United States in respect of Intelsat, the United Kingdom in respect of Inmarsat, and France in respect of Eutelsat which would be held to answer such claims, although it could not be excluded that, for example, the operation of a particular Inmarsat satellite conducted from US territory might trigger US responsibility in addition to that of the United Kingdom. The concept of “national activities” determines the scope of the international responsibility addressed by Article VI of the Outer Space Treaty, and such “national activities” could very well encompass, next to activities conducted by nationals of the state concerned (the United Kingdom in the case of Inmarsat), activities conducted from the territory of another state concerned (in this example the United States).⁹¹

3.3. The “Boundary” Issue Under the Rescue Agreement

In the absence of any reference to private operators or non-governmental entities and with “international intergovernmental organisations” for the purposes of the Agreement defined in no greater detail than precisely by the reference to “intergovernmental,” the crucial dividing line between IGO/ISO and private operator remains the same as that discussed with respect to the Outer Space Treaty.⁹² INTELSAT, ITSO, INMARSAT, IMSO, EUTELSAT, and EUTELSAT IGO thus all respectively qualify as IGOs for the purpose of the Rescue Agreement, whereas Intelsat, Inmarsat, and Eutelsat clearly do not.

The main result of the privatization process in this context then is that the actual operators of the three satellite systems since being privatized can no longer claim rights of recovery and return directly even in theory, as dependent upon a relevant declaration under Article 6, but now in any case would require their respective launching authority (or launching authorities) to do so.

In addition, they would not be held directly responsible under international space law for any possible violations of the relevant obligations, in this case referring to issues of rescue, recovery, and return. However, as discussed above, when it comes to possible violations of any rules of space law under the Outer Space Treaty, in the case of an ISO there would always be a residual responsibility for those states members of the ISO, so that the difference in that respect would not be very substantial.

4. The Liability Convention and Non-State Actors

4.1. Intergovernmental Organizations and the Liability Convention

The Liability Convention is generally perceived to constitute an elaboration of Article VII of the Outer Space Treaty, establishing a more detailed set of liability rules based upon the fundamental principle of liability created by it.⁹³ The Convention specifically refers to “international intergovernmental organizations” in just two of its clauses: one on the specific issue of definition of damage compensable under the Convention,⁹⁴ the other having a fundamental effect on the scope of the Convention *ratione materiae* rather akin to the formula of Article 6 of the Rescue Agreement.

4.1.1. The secondary Status of IGOs under the Convention

As to the latter, Article XXII(1) of the Liability Convention provides: “In this Convention, with the exception of Articles XXIV to XXVII, references to States shall be deemed to apply to any international intergovernmental organisation which conducts space activities if the organisation declares its acceptance of the rights and obligations provided for in this Convention and if a majority of the States members of the organisation are States Parties to this Convention and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.” Member states of an IGO, furthermore, are charged specifically with trying to get that IGO to make such a declaration.⁹⁵

The Convention thus requires the same three conditions to be fulfilled as in the case of the Rescue Agreement. Further, like the Rescue Agreement, the “partisanship” of an IGO in its own right is limited to the substantive rights and obligations, where Articles XIV through XX deal with the Claims Commission as the dispute settlement mechanism offered by the Convention to states parties. Article XXI deals with the possible need to render assistance in case of large scale dangers to human life and Articles XXIII through XXVIII deal with procedural issues and formalities.⁹⁶

More clearly than in the Rescue Agreement, however, the legal personality potentially granted to ISOs is of a secondary nature. When the ISO in its quality of “launching state”⁹⁷ has become liable for damage caused by its space object, any claim for such damage should be addressed firstly to the organization itself, yet in a second instance, “where the organisation has not paid, within a period of six months, any sum agreed or determined to be due as compensation for such damage, . . . the claimant State [may] invoke the liability of the members which are States Parties to this Convention for the payment of that sum.”⁹⁸ Six months, however, is not a terribly long period for an ISO to deal with an international liability claim under the Liability Convention.

In other words: behind the “surface” liability of an ISO there would always lie a “baseline” liability of the individual member states; such states can never use the ISO as a shield against any obligation to see the victim duly compensated and would be instead be incentivized to arrange for a proper handling of such claims in the context of the IGO prior to such event.⁹⁹ Such arrangements would have to deal most importantly with questions (1) regarding contributions to any liability claim to be paid by an ISO by those of its member states *not* parties to the Liability Convention (and hence to that extent not under a self-evident obligation to carry their share of the ISO’s liability), and (2) whether the proportionality criterion to be used for such cases should refer to the overall respective contributions made to the ISO, the respective contributions made to the particular satellite, a general calculation of GNP or any combination of those and/or other criteria. Thus, if the ISO is unable to pay the claim directly, the victim could still seek compensation from the member state.

On the other hand, if an ISO would become the victim of damage compensable under the Convention, its legal status is even more secondary, as “any claim, pursuant to the provisions of this Convention, for compensation in respect of damage caused to an organisation which has made a declaration in accordance with paragraph 1 of this article shall be presented by a State member of the organization which is a State Party to this Convention.”¹⁰⁰

Clearly, an ISO is not an autonomous entity whose intergovernmental composition is irrelevant, presenting a public version of a “corporate veil” hiding the individual interests of the “shareholders.”¹⁰¹ As seen before in the context of Articles VI and XIII of the Outer Space Treaty, the ISO in such cases is considered in essence to be a vehicle for a number of states to act collectively, stimulating states to use it also as a vehicle for dealing with joint liabilities for the activities of the ISO.

4.1.2. *The Special Case of EUTELSAT IGO*

Among the three original ISOs which are the object of current analysis, EUTELSAT is the only one to have actually declared its acceptance of rights and obligations under the Liability Convention by means of a relevant declaration.¹⁰² While that declaration may persist also with respect to the EUTELSAT IGO which took the place of the old “EUTELSAT,”¹⁰³ it remains to be seen what this means in light of the fact that any space operations of note—the kind of activities potentially triggering application of the Liability Convention—have been transferred to Eutelsat in the course of the privatization process.

On the “defendant-side,” with a view to the definition of the “launching State,” applicability of the Convention could only become an issue to the extent that EUTELSAT IGO would itself “procure” the launch of another satellite on behalf of Eutelsat.¹⁰⁴ Such a situation, however, would now be highly unlikely, as the main legislative efforts driving privatization of the ISOs called for operational independence of the private operator from the supervising public entity. For Europe, the 1994 EU Satellite Directive required full-fledged privatization of the ISOs *inter alia* through deletion of any special or exclusive rights, state aids of any sorts as well as other benefits IGOs could derive from such a status.¹⁰⁵ Likewise, for the United States the 2000 ORBIT Act¹⁰⁶ required privatization to be comprehensive in order to allow fair competition of the privatized former ISOs with private operators that

did *not* evolve from ISOs, such as PanAmSat, which had lobbied vehemently with the US government to get it to ensure a level playing field in those respects.¹⁰⁷

On the “claimant-side,” EUTELSAT IGO by its declaration would still qualify as an IGO entitled under Article XXII of the Convention to the rights and duties of states under the Convention, but, as discussed, for assertion of a claim for compensation of damage suffered, it would depend upon a member state. The sole difference being that, were EUTELSAT IGO to be treated as the entity itself suffering damage (namely “through” the private operator it is monitoring following the privatization of the operations, as if by proxy), any EUTELSAT IGO member state could be called upon to assert a claim on behalf of Eutelsat. However, if such damage could not be legally constructed so as to give rise to implementation of the EUTELSAT declaration, only France (as the state of nationality of Eutelsat) would be entitled to put forward such a claim.

4.2. Private Operators and the Liability Convention

Like the two other space treaties discussed so far, the Liability Convention does not specifically refer to private enterprise, although it does make reference to “juridical persons” a few times in the context of defining compensable damage under the Liability Convention.¹⁰⁸

4.2.1. The Proper Place of Private Operators under the Convention

On the “liability-side,” as a consequence of the four criteria to become a liable entity defined as “launching State” (every “State which launches or procures the launching of a space object . . . [or] from whose territory or facility a space object is launched” qualifies as a “launching State,” and hence is liable for damage caused by the space object concerned under the Convention)¹⁰⁹ no measure of private involvement in the space object concerned, whether it concerns its manufacture, its launch, its ownership, its operation, or its usage, is relevant at the international level. Regardless of such private involvement, a particular state will be held liable under the Liability Convention once it qualifies as a launching state, and whether and to what extent it would be able to have recourse to any private entity involved is not a matter of the Convention itself, or for general international law for that matter.

The Liability Convention, in contrast to the Rescue Agreement and its concept of “launching authority” as discussed before, allows for multiple states to qualify as a “launching state,” and specifically establishes joint and several liability in cases where more than one state qualifies as such.¹¹⁰ Thus, if Intelsat were to launch a satellite from Bajkonour, the United States as well as Russia and Kazakhstan would qualify as launching states. The resulting joint and several liability is a matter for the states concerned to deal with. For example, Russia and Kazakhstan have concluded an ongoing agreement that any liability claims addressed at Kazakhstan as a consequence of Bajkonour-launches will be reimbursed by Russia.¹¹¹ This bilateral inter-party arrangement, however, clearly cannot derogate from the liability as such of Kazakhstan under the Liability Convention.

The issue of reimbursement by the private operator, the *de facto* “causator” of the damage (as well as the establishment of other means of legal control over, and involvement

with, such private participation) as a consequence of the definition of the liable entity (entities) through the concept of the “launching state” becomes a matter of domestic action. Notably, this would take the form of the drafting of national space legislation or national licenses providing for a reimbursement obligation, and—if considered requisite—attendant obligations of financial security, insurance, technical, and operational expertise, and appropriate other measures to limit the opportunities that damage would actually be caused.

And indeed, in a number of instances individual states have taken care to oblige satellite operators (as well as other private companies active in outer space so as to run the risk of causing damage compensable under the Liability Convention) (1) to take out a license before being allowed to commence or continue their activities; (2) to accept in such a license the obligation to reimburse the licensing state for claims the latter might have to pay out under the Liability Convention, either without or up to a limit; and (3) to insure, at least up to a certain amount, against such a reimbursement obligation.¹¹²

The Liability Convention, however, by its approach to handling liability, gives rise to a peculiar situation here: essentially it is not a space activity causing damage in a particular case which leads to the liable entity or entities, but the space object involved in that activity, where the launch then points to the liable entity or entities.¹¹³ That complete focus on the launch, however, and on the state(s) crucially involved therein as per the fourfold criterion, essentially means “once a launching state, always a liable state.”¹¹⁴ In turn, in domestic legal mechanisms devised to handle such liability in cases of private involvement, the focus will be largely on such involvement in the launch, as opposed to, for instance, the satellite operations themselves.

4.2.2. *Private Operators (Such as Intelsat) and US National Space Law*

This is most clear in the US case, relevant to Intelsat, as the United States has different licensing regimes for private involvement in launching (and other forms of space transportation), satellite communications,¹¹⁵ and satellite remote sensing,¹¹⁶ respectively, whereas the regime providing for liability-reimbursement and related insurance obligations is incorporated exclusively in the first-mentioned regime.

Here, the Commercial Space Launch Act Amendments of 1988, now codified in their latest rendition as part of the United States Code,¹¹⁷ provided that anyone licensed under the Act “shall obtain liability insurance or demonstrate financial responsibility in amounts to compensate for the maximum probable loss from claims by . . . a third party for death, bodily injury, or property damage or loss resulting from an activity carried out under the license.”¹¹⁸ That insurance is to cover *inter alia* the US government against such claims as may arise under the Liability Convention.¹¹⁹ The “maximum probable loss” referred to in this key clause is to be determined by the Secretary of Transportation (read the Office of the Associate Administrator for Commercial Space Transportation as mandated by the former), but any possible amount to be derogated under this concept would be capped by either “the maximum liability insurance available on the world market at reasonable cost” or US\$500,000,000, whichever is the lower.¹²⁰

Most importantly, however, the particular licensing obligation entailing such further responsibilities applies only to anyone wishing “to launch a launch vehicle or to operate a launch site . . . in the United States,” as well as any “citizen of the United States . . . [wishing]

to launch a launch vehicle or to operate a launch site . . . outside the United States” —not, for example, to someone only operating the satellite launched and/or having ordered such launch.¹²¹

Any private satellite operator, even if a US company in legal terms (like Intelsat) and operating its satellites from US soil (as Intelsat at least partially does), would at best come in touch with these rules indirectly. This would occur namely only to the extent it would have its satellites launched by an operator that is subject to the above licensing requirements, and may wish to derogate, as part of the launch contract, (part of) those liabilities to the satellite operator. Most likely, relevant provisions would focus on damage caused as a consequence of negligence or gross negligence on the part of the launch provider alternatively satellite operator, noting that the baseline standard of practice in such contracts is a cross-waiver of liability, or on cases where the damage was caused unequivocally after the launch phase had ended and the satellite was on its own. Ultimately, however, whatever provisions end up in the contract are a matter of negotiation between the two contractual partners, not a matter of international or (generally speaking) of national space law.

4.2.3. *Private Operators (Such as Inmarsat) and UK National Space Law*

In contrast to the United States, the United Kingdom and France have single “framework” acts dealing *ratione materiae* with the comprehensive range of space activities, including satellite operations. Inmarsat, a body “incorporated under the law of any part of the United Kingdom,” not being a launch provider itself has to procure the launches of its satellites by launch service providers (whether these are governmental or private), yet under the UK Outer Space Act it does indeed require a license for each such activity.¹²²

The Outer Space Act then also imposes upon the licensee the obligation to “indemnify Her Majesty’s government in the United Kingdom against any claims brought against the government in respect of damage or loss arising out of activities carried on by him to which this Act applies.”¹²³ As for insurance, it is left to the licensing authorities to impose such an obligation as well as any limit to it.¹²⁴ At the policy level it has become standard practice to impose such an obligation, with moreover a standard cap on third-party liability insurance being applied of (currently) some €60,000,000, some US\$80,000,000 at today’s rates.¹²⁵

In view of the aforementioned focus of the international liability regime as per the Liability Convention on the launch for the purposes of determining liability, it may appear unlikely that the UK authorities would impose such an insurance requirement for a satellite operator (as opposed to a launch operator) without further ado.

However, the reference to “procurement” of a launch as itself requiring a license under the Act may signify that the procurement of a launch by a private UK company such as Inmarsat should be read as procurement of that launch by the United Kingdom itself, making that state liable under the Liability Convention in case damage would be caused by the satellite thus launched. To be sure, Article I(c) sub (i) of the Liability Convention speaks of “a State which . . . procures the launching of a space object”; yet many experts would hold the reference to “a state” to include any private company subsumed under that state, in line with the general equation by Article VI of the Outer Space Treaty of private activities with governmental activities for the purpose of international space law.¹²⁶ Consequently,

Inmarsat may indeed be required under its license to take out insurance, essentially because the UK authorities do not exclude the possibility that their liability may be called upon internationally so as to lead to the obligation to compensate damage caused by an Inmarsat satellite.

4.24. *Private Operators (Such as Eutelsat) and French National Space Law*

Similarly in France, Eutelsat would be subject to a licensing obligation, as there is no doubt that the company qualifies as a “juridical person whose headquarters are located in France . . . intending to procure the launching of a space object” in addition to being a “French operator intending to command such an object during its journey into space.”¹²⁷ “Operator” is defined as “any natural or juridical person carrying out a space operation under its responsibility and independently,” whereas the term “space operation” includes “any activity consisting . . . of ensuring the commanding of a space object during its journey in outer space.”¹²⁸

Under Article 4 of the Law on space activities, Eutelsat has to be pronounced financially, professionally, and technically healthy by the French authorities in order to have a request for a license positively considered. More importantly, it has to “have and maintain, as long as it can be held liable pursuant to Article 13 and for the amount set out in Articles 16 and 17, insurance or another financial guarantee,” which “must cover the risk of having to compensate for the damages that could be caused to third parties” up to the relevant amount, and must cover *inter alia* “1° The Government and public bodies; 2° The European Space Agency (ESA) and its Member States; 3° The operator and the persons having taken part in the production of the space object or in the space operation” — of course each to the extent these may be faced with claims for compensation.¹²⁹ The reference to ESA and its member states under 2° takes into account in particular the potential for Arianespace launches to lead ESA and/or its member states to become liable,¹³⁰ whereas the reference under 3° covers *inter alia* product liability at the international level, something not as such addressed by the Liability Convention. Interestingly, Article 15 allows operators from other member states of the European Union (plus those of the European Economic Area)¹³¹ the same possibility as a French operator to avail itself of the maximum liability arrangements under a license.¹³²

In view of the quoted reference to Article 13, Article 6 essentially reiterates some of the provisions of the Liability Convention regarding absolute *versus* fault liability as well as exoneration. Articles 16 and 17 provide the French authorities with the ability to limit the indemnification for damage caused during the launching phase respectively thereafter.

Finally, Article 14 ensures that the French government, if found liable, will be reimbursed by the licensee up to the maximum amount applicable under Articles 16 or 17. Interestingly, that assurance not only applies to international liability claims under the Liability Convention, but also to such claims under the Outer Space Treaty. This suggests that France at least does not wish to exclude the possibility that a third state would like to claim *not* on the basis of the Liability Convention (and therefore effectively also *not* on the basis of Article VII of the Outer Space Treaty)¹³³ but on the basis of Article VI.¹³⁴

Apparently, therefore, the mere conduct of space operations by Eutelsat, without these necessarily leading to qualification of France as a “launching state” may, if causing damage, from the French perspective *still* lead to a claim for compensation, as “reparation” for the consequences of “national activities in outer space” attributable under Article VI to France.

Take, for instance, the situation in which Eutelsat would buy a satellite already in orbit where it had no involvement whatsoever with the launch thereof (for example, buying a satellite from a US competitor that had procured its launch from a US launch service provider, launching from a US facility on US territory).¹³⁵ Under its own law, France would impose the obligation upon Eutelsat to obtain a license for operating that satellite after hand-over, including the obligation to indemnify the French government in “the case of . . . damage caused after the launching phase” up to a certain maximum.¹³⁶

4.2.5. *Private Operators as Victims of Damage*

On the “victim-side,” read “claimant-side” of liability, the primary focus of the Liability Convention on states was logically reflected in a total absence of *jus standi* for private operators—at least under the Convention itself. Any claim for damage, even if sustained by a private operator (for example, if its satellite would be damaged by fragments of another space object), would require a state to take it up. Here, the Convention firstly provides for the state of nationality of the operator, secondly (if the aforementioned state choose not to assert a claim) the state where the damage was sustained (of course presuming it a different state than the first-mentioned), and thirdly (if neither of the aforementioned states has chosen to assert a claim) the state whose “permanent residents” had sustained the damage (presuming again this to be a state different from the previous one(s)).¹³⁷

With a view to juridical persons such as private operators of communication satellites, however, the following *caveats* regarding the application of these clauses are due. As to the second option of a state taking up the cause of a private operator, it should be noted that the most likely cases of damage being suffered by a private operator as caused by an(other) space object (and hence falling within the scope of the Liability Convention) would be to its own satellite in outer space, meaning this option essentially becomes useless: outer space is not the “territory” of any state in the legal sense of the word.¹³⁸

Furthermore, the third option seems to focus largely on *natural* persons, which is in any event where the notion of a “permanent resident,” entitling the state concerned to the exercise of diplomatic protection such as by taking up an international claim on its behalf, is becoming an increasingly accepted concept.¹³⁹ Even if it were to be applied here to private companies as well, the notion of “permanent residence” in the context of a company logically speaking would point at its main seat of business operations, which is its headquarters (unless a ground station for satellite control as such would be deemed to qualify)—which in turn, under general public international law, co-determines the nationality of the company¹⁴⁰ (together with the law of incorporation), bringing analysis back to the first option.

In short: it would essentially be the state of nationality which is to take up the cause of a private satellite operator in the context of an international liability dispute under the Liability Convention. Questions may then arise to what extent domestic provisions, either

by national law or by applicable licenses, deal with the rights and interests of private operators to see their cause being properly taken up by their state of nationality, for example by a right to be consulted and/or present at relevant proceedings. The Liability Convention, being an international public law treaty, remains completely silent on those issues.

It should be noted that nothing in the Liability Convention precludes a private operator from pursuing its own claims in other forums at its disposal, notably those of the launching state.¹⁴¹ There may be several valid reasons for doing so: apart from the dependency upon a private operator's state of nationality which recourse to the Liability Convention's system requires, private claims in a court would lead to a binding judgement,¹⁴² may cost considerably less in terms of time and funds, and may (at least in certain jurisdictions) lead to substantially larger amounts of compensation than an international decision. To that extent, the Liability Convention is merely an additional tool for relevant states to arrive at compensation for damage sustained by themselves and/ or natural or juridical persons.

4.3. The "Boundary" Issue under the Liability Convention

The Liability Convention, like the Rescue Agreement, defines IGOs essentially in an indirect manner, through its repeated references to states members of that organization and their fundamental role in the context of the secondary personality these IGOs can enjoy under the Convention. In other words: for the purposes of the Liability Convention the key defining factor of an ISO is again its being composed of a number of sovereign states, as this already followed from the Outer Space Treaty's relevant provisions.

Moreover, there is no proper definition of private operators, but following the Outer Space Treaty's lead clearly Intelsat, Inmarsat, and Eutelsat qualify as such for the purpose of the Liability Convention, and will of necessity implicate their respective states in any case where damage would be caused by or to their operations.

Crossing the threshold from ISOs to private companies, therefore, means that henceforth Inmarsat requires a license from the UK authorities which, *inter alia*, deals with the potential for the United Kingdom to be held liable as a consequence of Inmarsat's procurement of launches, and generally speaking ensure control of the respective authorities over the technical, operational, economic, social, and ecological quality of the activities.¹⁴³

Similarly, Eutelsat would be faced with liability reimbursement arrangements as part of its license, as a consequence of the reference of the French Law on space activities to compensation possibly due under (Article VI of the) Outer Space Treaty in conjunction with its reference to licensing obligations for any operations in space and (limits to) indemnification under such a license also for damage caused after the launch phase has ended.¹⁴⁴

Only in the case of Intelsat, as seen, the imposition of international third-party liability arrangements through the license (which license itself was suggested by Article VI of the Outer Space Treaty and obligatory under the Commercial Space Launch Act) would be unlikely.¹⁴⁵ Apparently, the US authorities do *not* consider mere operations of Intelsat involving its satellites and causing damage to possibly give rise to claims for compensation as part of reparation for internationally wrongful acts involving such damage under Article VI of the Outer Space Treaty.

Whether the position on this legal matter of the United Kingdom and France or conversely that of the United States will prevail and become the generally accepted one at the

end of the day will only be decided *either* when further international legal discussion (presumably in the UNCOPUOS context) would lead to an unequivocal understanding on the scope of the international responsibility and liability of Articles VI and VII of the Outer Space Treaty and of the Liability Convention *or* upon the first decision by an international court or tribunal in a concrete legal dispute on the issue.

Crossing the threshold from ISO to private operator finally also meant that, henceforth, all three operators would depend upon their respective states of nationality *only* in case they would suffer damage and would like to use the Liability Convention to get such damage compensated. If, for whatever reason, the United States, the United Kingdom, or France would not consider taking up a case under the Liability Convention on behalf of Intelsat, Inmarsat, or Eutelsat for damage caused to their respective satellites, the only option left to those private operators might well be to sue in a private capacity in the courts of (presumably) the (or a) launching state.¹⁴⁶

5. The Registration Convention and Private Operators

5.1. Intergovernmental Organizations and the Registration Convention

The Registration Convention, tied most closely to the Liability Convention already in terms of substance—the former’s regime for registration of space objects was developed to a large extent to enhance the chances of identifying the liable entity or entities for the purposes of the latter¹⁴⁷—follows the same path when it comes to providing IGOs with their own status. Also the Registration Convention was designed largely to elaborate one article of the Outer Space Treaty, in this case Article VIII, providing for the general concept of registering a space object and the possibility to exercise jurisdiction over it for the registering state.¹⁴⁸

Article VII(1) of the Registration Convention provides for the same three criteria for an IGO to become a *de facto* party to its regime (partisanship of the majority of its members to the Registration Convention, partisanship of the majority of its members to the Outer Space Treaty, and a formal declaration) as well as for the same limitation to such partisanship of the IGO (namely, to the Articles dealing with substantive rights and obligations only).¹⁴⁹

The result of application of the Registration Convention to an IGO having made the declaration concerned—which did not apply to INTELSAT, INMARSAT, or EUTELSAT, and currently does not apply to ITSO, IMSO, or EUTELSAT IGO—is that such an IGO could now officially act as registration entity of its own satellites (or other space objects) in conformity with its provisions. At the same time, the inherent limitations to applying the registration concept to IGOs becomes apparent in dealing with the major legal consequence of registration: the possibility to exercise jurisdiction, on a quasi-territorial basis as it were, over the space object so registered.¹⁵⁰ Obviously, an IGO cannot exercise jurisdiction in the sense of public international law, so the question would be who *could* do so over a space object registered by an IGO, as it were in its stead or on its behalf.¹⁵¹

Here the only clue the Registration Convention provides is that “where there are two or more launching States in respect of any such space object, they shall jointly determine which one of them shall register the object in accordance with paragraph I of this article,

bearing in mind the provisions of article VIII of the [Outer Space] Treaty . . . without prejudice to appropriate agreements concluded or to be concluded among the launching States on jurisdiction and control over the space object and over any personnel thereof.”¹⁵² This clause, obviously, is targeted at cases where two or more *states* qualify as launching states, where the main rationale is to preclude as far as possible conflicts of jurisdiction between several states.

A similar scenario however would arise where an IGO qualifies as a “launching state” for the purpose of the Registration Convention, since in the absence of any further regulation all member states of that IGO, or at least those that are themselves parties to the Registration Convention—essentially regardless of whether in addition such states themselves would qualify as “launching states”—might claim to exercise jurisdiction over the space object registered by “their” IGO. So, it would be appropriate to apply the same rationale, as further corroborated by Article XIII of the Outer Space Treaty,¹⁵³ and hence essentially the same principle, in that “appropriate agreements” can or should be concluded among the states concerned “on jurisdiction and control over the space object and over any personnel thereof,” to use the phrases of the Registration Convention.¹⁵⁴ Presumably, such “appropriate agreements” would be part of the IGO’s internal statutes, or being adopted under those.

Obviously, with none of the three IGOs currently under consideration either in their old or in their new manifestation having declared their acceptance of the rights and obligations under the Convention, all this has so far remained theory.

5.2. Private Operators and the Registration Convention

As for Intelsat, Inmarsat, and Eutelsat, the main point of note is that the registration of satellites launched for either of them under the Registration Convention is *not* (necessarily or automatically) for respectively the United States, the United Kingdom, and France to undertake; that almost exclusively depends upon what extent these three states qualify as “launching states” for those satellites.

This would unequivocally be the case, for example, for the United States if an Intelsat satellite would be launched from a US launch site or territory, or by NASA or the US Air Force.¹⁵⁵ If, by contrast, that satellite would be launched by a Soyuz vehicle from Bajkonour, the only legal link between the Intelsat-owned and -operated satellite and the United States would be Intelsat’s nationality as per its administrative and operational headquarters—a concept which does not figure as such in the definition of the launching state.

There would be one scenario however in this example under which the United States might still play the role of state of registry under the Registration Convention by qualifying as a “launching state.” This depends on the extent to which the second criterion for becoming a launching state, that of “procuring” the launch, is interpreted as including cases where a state’s *national* (for instance a company with its nationality) procures the launch itself, as opposed to only dealing with cases where “A State . . . procures the launching of a space object.”¹⁵⁶ As there is no general agreement on the international level regarding the precise scope of the notion of “procurement,” not even among individual experts,¹⁵⁷ states have picked their own choice as to such interpretation, even if largely “unconsciously,” by applying their respective licensing obligation and requirements regarding liability—where

the concept of the “launching state” was first developed—and registration to one or the other category of private actors.

Starting again with the example of Intelsat, the United States under the Commercial Space Launch Act does *not* require a license with the attendant reimbursement and insurance obligations as discussed¹⁵⁸ for operators procuring a launch on a non-US launcher from non-US soil, whereas the Communications Act’s licensing system only refers to those intending to “use or operate any apparatus for the transmission of energy or communications or signals by radio” on US territory—yet does not contain any relevant liability or insurance requirements. From this, it should be deduced that the United States at least implicitly does not consider itself a “launching state” for the purpose of either Liability or Registration Convention on the mere premise of a private operator with its *nationality* procuring the launch in question. At least, it would find a strong argument in denying any liability or obligation to register in respect of such satellite should a legal dispute on this ever come to an international court, tribunal, or Claims Commission.¹⁵⁹

It should be added, that in the United States there is no statutory registration of space objects which might shed further light on this issue. So far, the State Department takes care of such registration as necessary, based on information provided by other branches of the US government and referring in this context to “the official U.S. Registry of Space Objects Launched into Outer Space.”¹⁶⁰ The Federal Aviation Administration in turn is then required to assist the State Department in ensuring licensees will provide the appropriate information, which applies to “all objects placed in space by a licensed launch.”¹⁶¹

Interestingly, for Inmarsat as a UK company the situation is different, as the UK Outer Space Act *does* require an operator with UK nationality procuring a launch to obtain a license, and this cannot but lead to the conclusion that the United Kingdom would consider itself a “launching state,” and would feel itself obliged either to register the satellite at issue itself (in case the United Kingdom would be the only state qualifying as “launching state”) or to make sure *some* state does so in conjunction with other launching states, in case it is not itself the only one qualifying as such—for example, if the actual launch of the satellite would be undertaken by a Soyuz from the Russian facilities at Bajkonour.¹⁶²

The UK Outer Space Act also specifically provides that “[t]he Secretary of State shall maintain a register of space objects” and that “[t]here shall be entered in the register such particulars of such space objects as the Secretary of State considers appropriate to comply with the international obligations of the United Kingdom,” thus leaving the matter essentially undecided to what categories of private satellite operators that Convention would actually apply.¹⁶³

In the case of Eutelsat, the French national space law likewise calls for a license for those operators of French nationality that wish to procure a launch and/or operate a satellite launched elsewhere. Yet, as the law on space activities also specifically refers not only to the Liability Convention but also to the Outer Space Treaty, the need for a license in the scenarios referred to may not be concluded automatically to confirm France’s perception of being *liable*—to the extent the licensing obligation would be following from Article VI of the Outer Space Treaty, it would rather qualify France as a *responsible* state.

It should nevertheless be assumed that the French law does not deviate more than strictly necessary from the terms of the Liability and Registration Conventions, to both of

which France is a party of long standing.¹⁶⁴ Therefore, it should also be assumed that those cases for a license obligation that match the criterion of a launching state for liability purposes will be those used in the Liability Convention—and hence be identical to those of the Registration Convention.¹⁶⁵

On registration itself finally, the French law simply calls for registration “in the event France has a registration obligation according to Article II” of the Registration Convention, without specifying or indicating how France itself envisions the scope of that Article with a view, for example, to private satellites and/or the operations conducted with them.¹⁶⁶

5.3. The “Boundary” Issue under the Registration Convention

As a consequence of the above, the transition from ISO to private operator has had varying consequences as far as the Registration Convention is concerned. In the ISO context registration of satellites was rather straightforward, any member state being able to register on behalf of the ISO as being a state “procuring” the launch of that satellite through the “vehicle” of the ISO.¹⁶⁷ Following the transition, however, for Inmarsat and Eutelsat the situation became even more straightforward, with the United Kingdom considering itself to be a “launching state” for any satellite the launch of which was procured by Inmarsat, and hence tasked to ensure proper registration, and the same applying *mutatis mutandis* to France and Eutelsat; whereas in the case of Intelsat the state or states entitled and obliged to realize registration might more readily differ from case to case and might not even necessarily include the United States.

6. UNGA Resolution 37/92 and Private Operators

6.1. Intergovernmental Organizations and the UNGA Resolution

The UN Resolution dealing with international direct television broadcasting,¹⁶⁸ being a Resolution of the UN General Assembly, is not a binding legal document akin to a treaty.¹⁶⁹ Also, the fact that it was not adopted by consensus but by a vote with most of the states of the developed world abstaining or voting against it denies the Resolution the status as being reflective of customary international law—with the exception perhaps of those states that voted in favor.¹⁷⁰ Thus, the substantive core of the Resolution, the perceived requirement of “prior consent,” does not generally speaking apply to Intelsat, Inmarsat, and Eutelsat, the post-ISO-privatization operators, since neither the United States, nor the United Kingdom, nor France, the respective host states of those privatized entities, are among the states voting in favor of the Resolution.¹⁷¹

The UN Resolution makes reference to intergovernmental organizations exactly once, in stating that “[w]hen international direct television broadcasting by satellite is carried out by an international intergovernmental organisation, the responsibility referred to in paragraph 8 above should be borne both by that organisation *and* by the States participating in it.”¹⁷² Paragraph 8 in turn, as will be seen, simply restates the general state responsibility for space activities as already posited by Article VI of the Outer Space Treaty for the specific context concerned.

As the Resolution also explicitly considers the activities it deals with to be subject to the Outer Space Treaty,¹⁷³ these paragraphs simply confirm the ultimate responsibility of UN

member states for compliance with the Resolution's principles in cases where intergovernmental organizations that those states are members of undertake the broadcasting activities at issue. This, of course, would only be the case to the extent those principles can be considered binding for any individual state concerned, either because it has voted in favor or because a certain obligation could be considered to reflect customary international law (or both). Further analysis might be required as regards the question whether that would actually apply to (a majority) of the member states of ITSO, IMSO, and/or EUTELSAT IGO.

6.2. *Private Operators and UNGA Resolution 37/92*

The key provision in the Resolution regarding private operators is to be found in the aforementioned Paragraph 8, stating that "States should bear international responsibility for activities in the field of international direct television broadcasting by satellite *carried out* by them or *under their jurisdiction* and for the conformity of any such activities with the principles set forth in this document."¹⁷⁴

Thus representing a specific application of the general state responsibility principle of Article VI of the Outer Space Treaty, the activities of any operator under the jurisdiction of a state should trigger the responsibility of that state just as if it concerned its own activities. The main difference with the formulation of Article VI of the Outer Space Treaty from that perspective lies in the use of the "classic" international law-phrase "under the jurisdiction" instead of the reference to "national activities" that Article VI uses. Thus, the formulation of Paragraph 8 seems more clear in that this would normally refer to both territorial jurisdiction and jurisdiction over nationals.¹⁷⁵

In the specific cases of Intelsat, Inmarsat, and Eutelsat, there should be little doubt that (at least) the United States, the United Kingdom and France respectively are internationally responsible for their activities with a view to the Resolution's terms. Since, however, as indicated, neither of these three states have voted in favor of the Resolution when it was enunciated in 1982, nor have they ever since given evidence of a change of legal views in this regard, the three private satellite operators currently under scrutiny would only have to comply with those principles pronounced by the UN Resolution which would reflect customary international law or would otherwise be binding upon them.¹⁷⁶

6.3. *The "Boundary" Issue under UNGA Resolution 37/92*

In view of the above, the transition from ISOs to private operators operating under a limited supervision regime of revamped IGOs did not give rise to a major difference with regard to the legal obligations resting upon, or legal rights bestowed upon, the entities in question. At most it could be said at this point that the former operational ISOs would more likely have been required to operate in conformity with all the principles throughout—but essentially for political reasons: because a major portion of member states would have voted themselves in favor of the Resolution and would be willing to impose the consequences of strictly abiding by its terms as if it concerned a binding treaty, in many instances it would have been practically impossible for the ISOs to overstep those terms.

The general lack of willingness on the part of the United States, United Kingdom, and France to consider the principles (or at least some of them) valid legal rules, by contrast,

might have led to the privatized operators being much less likely to be held to the principles provided by the Resolution. The final answer to that issue, however, would require an analysis of the respective licenses, where the authorities concerned would (or at least should) have taken care to somehow reflect those principles they would consider binding (as a matter of customary law) whilst omitting any of those they would not consider valid legal rules.

It may be noted finally that the various legal documents allowing the respective supervisory IGOs to force compliance of the private operators do not even explicitly refer to international law, only to the core respectively basic principles which the operators should comply with,¹⁷⁷ which essentially begs the question again to what extent there would be customary international law rules incorporated in the Resolution which *ipso facto* would be applicable also to the activities of the operators.

7. The ITU Framework and Private Operators

7.1. *The ITU Framework and Satellite Operators*

The framework regime, based upon the ITU Constitution and ITU Convention, using the ITU with its competencies and capacities as the principal instrument to deal with the most important aspects of international telecommunications, is—*of course*—by far the most important element of the international legal environment for conducting satellite communications, whether by way of hybrid public consortia such as the old INTELSAT, INMARSAT, or EUTELSAT, or through privatized operators such as Intelsat, Inmarsat, and Eutelsat, to the extent supervised by the new IGOs ITSO, IMSO, and EUTELSAT IGO.

The present chapter does not profess to treat any part of that subject in any detail, but merely represents an effort to highlight one particular element thereof.¹⁷⁸ As indicated, the focus here is namely on the principled legal differences between intergovernmental organizations and private operators, and an analysis of the international space law treaties (and the one UN Resolution dedicated to satellite communications) on this particular issue without at least a summary comparative look at the ITU framework would make little sense.

7.2. *Intergovernmental Organizations, Private Operators, and the ITU Framework*

For the above purpose, it suffices to revisit the key mechanism for dealing with potential problems of satellite communications in the international environment, which is that of the coordination of frequencies and, indirectly, orbits.¹⁷⁹ The ITU framework, developed in its most original version almost a century and a half ago, for a long time has remained even more exclusively state-oriented than the UN space treaties, and this also transpires fundamentally in the aforementioned coordination process.

When states are intent on operating a satellite and on assuring the communication operations of that satellite, the process of coordination essentially consists of two steps. The first step involves the *allocation* of frequency *bands* to *categories* of communications services—or in the language of the Radio Regulations: “allocation (of a frequency band): Entry in the Table of Frequency Allocations of a given frequency band for the purpose of its use by one or more terrestrial or space radio communication services or the radio astronomy

service under specified conditions. This term shall also be applied to the frequency band concerned.”¹⁸⁰ These allocations normally take place at the World Radio Conferences which are regularly held every two or three years, where the ITU member states collectively decide on new allocations, or changes or deletions of existing allocations, based on the perceived global and general need of specific services (satellite as well as non-satellite) to be able to use radiofrequencies for their services—and of course on their lobbying and negotiating skills.¹⁸¹

Once a frequency band is allocated to a certain category of satellite services, it is open for specific requests by individual states to be granted interference-free use of specific frequencies for uplink, downlink, and wherever applicable, inter-satellite-link purposes. Those individual requests can be forwarded to the ITU’s Radio Regulations Board¹⁸² at any moment a state has decided to go forward with a specific satellite project, the so-called “notification.” Notification then kicks off an elaborate and often quite prolonged coordination process in order to ascertain that the new proposed satellite operation will not risk interfering with existing or previously notified requests for frequencies.¹⁸³

The ultimate aim of the notification and coordination process is to arrive at the second step, the *allotment* of specific *frequencies* to the particular notified *service*, also in case of satellite services—or to use the language of the Radio Regulations again: “allotment (of a radio frequency or radio frequency channel): Entry of a designated frequency channel in an agreed plan, adopted by a competent conference, for use by one or more administrations for a terrestrial or space radiocommunication service in one or more identified countries or geographical areas and under specified conditions.”¹⁸⁴

The reference to “administrations” as the entities entitled to the use of an allotted frequency (and therefore also the ones entitled to request allotment) is critical, since this term refers exclusively to relevant state organs: an administration is defined as “any *governmental department or service* responsible for discharging the obligations undertaken in the Constitution of the International Telecommunication Union, in the Convention of the International Telecommunication Union and in the Administrative Regulations.”¹⁸⁵

Thus, neither intergovernmental organizations nor private operators have any formal independent say in either the allocation process or the allotment process, or can even request for allotment at the ITU level. Both essentially are treated equal in this respect, in that a third step, of *assignment*, becomes necessary. “Assignment” is defined as “authorization given *by an administration* for a radio station to use a radio frequency or radio frequency channel under specified conditions,”¹⁸⁶ formally speaking following the allotment of that frequency to the state whose administration is referenced.

As such, both ISOs and private satellite operators require one state firstly to go through the allotment process, and, where necessary prior to that, the allocation process, and secondly to then assign the frequencies ultimately so allotted to them in order to be able to use them under the ITU system.

The omission of intergovernmental or private operators from the key formal decision-making processes within the ITU was not an oversight or neglected relic. ITU member states are explicitly held internationally responsible for telecommunication activities by entities “*authorised* by them to establish and operate telecommunications and which en-

engage in international services or which operate stations capable of causing harmful interference to the radio services of other countries.”¹⁸⁷ This provision literally refers to “operating agencies,” so as to include both public and private operators, to the extent the former are not yet covered by the same obligation of Article 6(1), applicable to the member states themselves. An “operating agency” is defined in the Annex to the ITU Constitution as “[a]ny individual, company, corporation or governmental agency,” and should for the present analysis be read as including an “*international* (multi) government agency.”¹⁸⁸

While in more recent times the limited status of non-states in the ITU has started to evolve—for example, at the Kyoto Conference of 1994 by means of an amendment to the ITU Convention the possibility for nongovernmental entities to participate as “small-m” members was allowed, providing them with the right of access to all relevant information as well as consultation; and at the Minneapolis Plenipotentiary Conference of 1998 they were allowed to achieve a status of “Sector members,” allowing for full-blown participation at the ITU sector level¹⁸⁹—states remain the only full members of the organization represented on the Council, the highest decision-making body of the ITU.¹⁹⁰

7.3. The “Boundary” Issue under the ITU Framework, as Far as Frequency Notification and Coordination Is Concerned

The only distinction between ISOs and private satellite operators in terms of obtaining a nominal guarantee of interference-free usage of usable frequencies from the ITU lies in the fact that, for IGOs, *any* member state of that IGO could propose allocation of frequency bands if needed and request allotment of specific frequencies effectively on behalf of that IGO. For a private operator there could usually be only one administration undertaking those efforts: that of the state of nationality (that is, incorporation and headquarters) of the company concerned.¹⁹¹

In practice, not even that distinction may have mattered much. In the cases of the old INTELSAT, INMARSAT, and EUTELSAT, for obvious reasons of efficiency and coherence, the task of taking up the interests of these IGOs in the ITU context was delegated to the host state of the organization—the United States, the United Kingdom, and France, respectively, precisely the states that post-privatization would continue to do the same on behalf of respectively Intelsat, Inmarsat, and Eutelsat. Even the inherent support including, where necessary, votes in favor of the other member states of INTELSAT, INMARSAT, and EUTELSAT in the ITU decision making processes, for respective US, UK, or French efforts would normally not be lacking in the case of the private operators due to the existence of ITSO, IMSO, and EUTELSAT IGO, respectively, whose member states should still be generally interested in seeing the private operators succeed.

8. Concluding Remarks

Perhaps surprisingly, the overall conclusions regarding the privatization process under the four space treaties, the UN Resolution, and the ITU regime are that the specific consequences of transformation from an intergovernmental organization to a private operator summarily supervised by a scaled-down intergovernmental overseer are actually relatively marginal, and often more of a formal nature or leading to practical differences of

handling the various interests involved than that there is any fundamental legal paradigm-shift to be noted.

In the final analysis, however, there is more to it than that. It is true, that even under the four space treaties, the apparent recognition of IGOs as a special type of entity, upon closer analysis, did not provide them much of a legal status and role as independent from their member states. Ultimately, states would always remain responsible and liable under the Outer Space Treaty and Liability Convention for activities of ISOs in case first-option dealings with the ISOs directly would somehow not work out to the satisfaction of the third parties invoking such responsibility or liability. Still, at least a considerable incentive was provided to prearrange internally for procedures of handling ISO liabilities—in terms of general need, similar, but in terms of structure, scope, and substance quite different from the incentive for states to draft national space legislation including licensing regimes handling private operator liabilities.

For example, global public interests in satellite communications would be much more likely to be ignored or neglected in a context where a single state would determine the legal parameters for an operator's activities than in a context where a multiplicity of states would be involved in determining that framework. Conversely, the latter would have been much less likely to adapt to a rapidly changing technological, economic and social environment.

Also the seemingly independent ability to register satellites under the Registration Convention as an ISO—an option, it should be added, never used by INTELSAT, INMARSAT, EUTELSAT, ITO, IMSO, or EUTELSAT IGO—would still require the member states of such organization to take care of the most prominent consequence of registration of a space object: the direct entitlement under Article VIII of the Outer Space Treaty and the Registration Convention to exercise jurisdiction and control over the satellite at issue. In that sense, the reality of the state-orientation of the space treaties as to a large extent still being devolved from general international public law, could not be overcome by the space treaties on their own account.

As a result, ISOs in the formal legal sense were (almost) as dependent on their member states as private space operators were on "their" state. In both cases it is such a state, after all, which is to be held responsible and liable under key provisions of, in particular, the Outer Space Treaty and the Liability Convention.

UN Resolution 37/92 and the element of the ITU framework discussed here do not even make that much of a theoretical distinction between an intergovernmental and a private operator, hence making the difference between the pre-privatization and post-privatization at least in terms of structural, formal, and theoretical application once more largely negligible.

The major exception worthy of note might operate more at an overarching abstract level of legal development than at the level of the operators themselves. The aforementioned "explicitization" of the general public duties for the privatized satellite operators by means of Public Service Agreements as noted constitutes an important measure of "juridification" of the operations of satellite operators, the consequence of the cross-over from ISO to private operator. This has equivalents in other areas as well—for example, to comply with the requirements of the Registration Convention, the registration of satellites now requires a

formalized domestic legal process instead of a political decision taken within an IGO structure, and essentially the same applies to the handling of the potential liabilities resulting from their operations under the Liability Convention in terms of now-explicit obligations to arrange appropriate insurance.

This in turn may lead to increasing diversification, as for example Eutelsat is being subjected to registration requirements even beyond the ones provided in the Registration Convention, and all three private operators are handled differently when it comes to dealing with the domestic consequences of liability under the Liability Convention. Prior to privatization, the ISOs operated more or less directly under the *aegis* of the Liability Convention, even if INTELSAT and INMARSAT had not made a declaration under Article XXII and also the declaration of EUTELSAT did not cause it to obtain much of a status independent from its member states. Through those member states, liability applied in accordance to the terms of the Liability Convention without further ado except for those formal *jus standi* issues. Following privatization, however, with the intermittence of domestic laws to regulate the specific liabilities of the operators, licenses could be mandated for varying activities (such as procurement in the UK case), liabilities could become limited, insurance could be made obligatory and specific obligations could be established which had never been considered under the Liability Convention (such as in the French case with product liability).

From a different angle therefore, a major result of the privatization of the ISOs was a fragmentation and diversification of the legal framework(s) within which they had to operate. Further to this, and partly as a consequence thereof, the main differences between pre-privatization and post-privatization will lie in the application in practice, both administratively speaking and politically speaking, of the legal regimes discussed.

In the international arena, the private operators will have to count on their host states to a much greater extent than the ISOs used to do, for even if they still could avail themselves of support from ITSO, IMSO, or EUTELSAT IGO, these IGOs obviously have only a specific and limited interest in the operators' activities, resulting in limited responsibilities and even more limited liabilities. After all, the whole idea behind the privatization process was that, apart from some public duties which should remain guaranteed, the operators should act under as much commercial freedom as possible, meaning that the new IGOs might be less broadly and actively interested in the success of the particular operator they were supervising. Consequently, private operators have to look to their national authorities for issues of recovery of damages under the Liability Convention or for satellites to be recovered under the Rescue Agreement, which thereby becomes a matter of national law. This opens the door to diversification of applicable regimes, unless the inherent global character of the satellite communications market serves as a force promoting international harmonization.

In the last resort, therefore, the Rubycon crossed by the privatization of the ISOs indeed was more of a practical, economic, and political character than of a strictly speaking legal character, although the legal framework did—apart from reflecting the relevant practical, economic, and political paradigm changes—result in a juridification of the regimes and in considerably more precision regarding the allocation of responsibilities and liabilities. Also, as a consequence of the fact that the Rubycon was crossed, so to speak, at different

fords by INTELSAT, INMARSAT, and EUTELSAT, the general legal framework was seen to diversify and fragment considerably. From that perspective there is no doubt that also legally speaking the world of international satellite communications has changed profoundly following the privatization of these three ISOs.

Notes

1. The fifth international treaty usually considered part of the core of the *juris spatialis internationalis*, the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (hereinafter Moon Agreement), entered into force 11 July 1984, 1363 U.N.T.S. 3, 18 ILM 1434 (1979), is not relevant here.
2. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereinafter Outer Space Treaty), entered into force 10 Oct. 1967, 610 U.N.T.S. 205, 18 U.S.T. 2410, T.I.A.S. 6347.
3. Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (hereinafter Rescue Agreement), entered into force 3 Dec. 1968, 672 U.N.T.S. 119, 19 U.S.T. 7570, T.I.A.S. 6599.
4. Convention on International Liability for Damage Caused by Space Objects (hereinafter Liability Convention), entered into force 1 Sept. 1972, 961 U.N.T.S. 187, 24 U.S.T. 2389, T.I.A.S. 7762.
5. Convention on Registration of Objects Launched into Outer Space (hereinafter Registration Convention), entered into force 15 Sept. 1976, 1023 U.N.T.S. 15, 28 U.S.T. 695, T.I.A.S. 8480.
6. Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, G.A. Res. 37/92, at 39, U.N. Doc. A/AC.105/572/Rev.1(Dec. 10, 1982).
7. The ITU is the UN-affiliated global organization dealing with international telecommunication issues, including those pertaining to satellite communications. It principally operates in accordance with the Constitution of the International Telecommunication Union (hereinafter ITU Constitution), entered into force 1 July 1994; 1825 U.N.T.S. 1; and the Convention of the International Telecommunication Union (hereinafter ITU Convention), entered into force 1 July 1994; 1825 U.N.T.S. 1. Both the ITU Constitution and the ITU Convention have been amended a few times since, notably in 1994 and 1998. See further *infra*, para. 7.2.
8. See on this issue in general Peter Malanczuk, "Actors: States, International Organisations, Private Entities," in *Outlook on Space Law over the Next 30 Years*, ed. Gabriel Lafferranderie and Daphne Crowther (Dordrecht: Kluwer Law International, 1997): 23–36.
9. INTELSAT was established on the basis of the Agreement Relating to the International Telecommunications Satellite Organisation (INTELSAT) (hereinafter INTELSAT Agreement), done 20 Aug. 1971, entered into force 12 Feb. 1973, as amended 17 Nov. 2000, amended version applied provisionally 18 July 2001, entered into force 30 Nov. 2004, 1220 U.N.T.S. 21, 23 U.S.T. 3813, T.I.A.S. 7532. See further Francis Lyall, *Law and Space Telecommunications* (Aldershot, Hants, Brookfield: Dartmouth, Gower, 1989): 74 ff., esp. 91–112; Francis Lyall and Paul B. Larsen, *Space Law—A Treatise* (Farnham: Ashgate, 2009), 325–37; Patrick A. Salin, *Satellite Communications Regulations in the Early 21st Century* (The Hague: Martinus Nijhoff, 2000): 101 ff., esp. 102–6; Ram S. Jakhu, "International Regulation of Satellite Telecommunications," in *Legal Aspects of Space Commercialization*, ed. Kunihiko Tatsuzawa (Tokyo: CSP Japan, 1992): 92–94.
10. INMARSAT was established on the basis of the Convention on the International Maritime Satellite Organization (INMARSAT) (hereinafter INMARSAT Convention), done 3 Sept. 1976, entered into force 16 July 1979, as amended 1998, amended version applied provisionally 15 April

- 1999, entered into force 31 July 2001, 1143 U.N.T.S. 105, 31 U.S.T. 1, T.I.A.S. 9605. See further Lyall, *Law and Space Telecommunications*, 209 ff., esp. 219–28; Lyall and Larsen, 344–50; Salin, *Satellite Communications Regulations in the Early 21st Century*, 101, 120 ff., esp. 122–23; Jakhu, “International Regulation of Satellite Telecommunications,” 94–95.
11. EUTELSAT was established on the basis of the Convention Establishing the European Telecommunications Satellite Organization (EUTELSAT) (hereinafter EUTELSAT Convention), done 15 July 1982, entered into force 1 Sept. 1985, as amended 20 May 1999, amended version applied provisionally 2 July 2001, entered into force 28 Nov. 2002, Cmnd. 9069. See further Lyall, *Law and Space Telecommunications*, 264 ff., esp. 275–86; Lyall and Larsen, 356–60; Salin, *Satellite Communications Regulations in the Early 21st Century*, 365 ff.; Jakhu, “International Regulation of Satellite Telecommunications,” 95–96.
 12. Agreement on the Establishment of the “INTERSPUTNIK” International System and Organization of Space Communications, entered into force 12 July 1972, 862 U.N.T.S. 3. See further Lyall, *Law and Space Telecommunications*, 296–303; Gennadi Zhukov and Yuri Kolosov, *International Space Law* (New York: Praeger, 1984): 109–20; Victor S. Veshchunov and Victoria D. Stovboun, “Intersputnik International Organisation of Space Communications: An Overview,” *Journal of Space Law* 29 (2003): 121 ff.; Lyall and Larsen, 364–68.
 13. Agreement of the Arab Corporation for Space Communications (ARABSAT), entered into force 15 July 1976, Space Law—Basic Legal Documents, C.VII.1. See further Lyall, *Law and Space Telecommunications*, 303–9; Adel A. Ziadat, “Arabsat: Regional Development in Satellite Communications: Lessons from the Arabsat Venture,” *Zeitschrift für Luft- und Weltraumrecht* 37 (1988): 35 ff.; Lyall and Larsen, 375–77.
 14. See Protocol on the Amendments to the Agreement on the Establishment of the “INTERSPUTNIK” International System and Organisation of Space Communications, entered into force 4 Nov. 2002, Space Law—Basic Legal Documents, C.VIII.2. See further on INTERSPUTNIK’s reform Veshchunov and Stovboun 122 ff.; Victor S. Veshchunov, “Reorganisation of INTERSPUTNIK,” *Outer Space Z News* 2-2 (1999): 9–10; Lyall and Larsen, 368 ff.
 15. See, e.g., Ulrike M. Bohlmann and Gisela Süß, “The status of international intergovernmental organisations under the UN Outer Space Treaty System,” *Space Law—Newsletter of the International Bar Association Legal Practice Division* 10-1 (Oct. 2009): 8.
 16. Art. XIII, Outer Space Treaty; emphasis added. See further, e.g., Ulrike M. Bohlmann and Gisela Süß, “Article XIII,” in *Outer Space Treaty*, CoCoSL Vol. 1, ed. Stephan Hobe, Bernhard Schmidt-Tedd, and Kai-Uwe Schrogl (Cologne: Carl Heymanns, 2009): 216–20.
 17. Art. XIII, Outer Space Treaty.
 18. See, e.g., Paul G. Dembling and Daniel M. Arons, “The Evolution of the Outer Space Treaty,” *Journal of Space Law* 33 (1967): 451–53; Bohlmann and Süß, “The status of international intergovernmental organisations under the UN Outer Space Treaty System,” 8; Zhukov and Kolosov, esp. 4–17, 36; also Malanczuk, “Actors: States, International Organisations, Private Entities,” 30; Stephan Hobe, *Die rechtlichen Rahmenbedingungen der wirtschaftlichen Nutzung des Weltraums* (Berlin: Duncker & Humblot, 1992): 72; in more general terms, Malcolm N. Shaw, *International Law* (6th ed.) (Cambridge: Cambridge University Press, 2008): 31–36; Michael B. Akehurst, *A Modern Introduction to International Law* (5th ed.) (London: George Allen & Unwin, 1984): 16–19; Antonio Cassese, *International Law* (Oxford: Oxford University Press, 2001): 40. On the fundamental changes in this Soviet perspective due to “glasnost” and “perestroika,” see Vladimir S. Vereshchetin and Gregory V. Silvestrov, “Space Commercialization in the Soviet Union: Facts, Policy, and Legal Issues,” in *Legal Aspects of Space Commercialization*, ed. Kunihiko Tatsuzawa (Tokyo: CSP Japan, 1992): 32–40.

19. See further Michael Gerhard, "Article VI," in *Outer Space Treaty*, CoCoSL Vol. 1, ed. Stephan Hobe, Bernhard Schmidt-Tedd, and Kai-Uwe Schrogel (Cologne: Carl Heymanns, 2009): 122–23.
20. See, e.g., Ian Brownlie, *Principles of Public International Law* (7th ed.) (Oxford: Oxford University Press, 2008): 675–99, esp. 687–89; Peter Malanczuk, *Akehurst's Modern Introduction to International Law* (7th ed.) (London: Routledge, 1997): 92–93; Cassese, 69–71; Rebecca M. M. Wallace, *International Law* (3rd ed.) (London: Sweet & Maxwell, 1997): 68–69; Bohlmann and Süß, "The status of international intergovernmental organisations under the UN Outer Space Treaty System," 8.
21. Usually such member state participation is enshrined by means of their representation in key organs of the organization labeled "General Assembly," "Assembly of Parties," "Plenary Meeting," "Council," and suchlike.
22. Cf. also the Vienna Convention on the law of treaties between states and international organizations or between international organizations, Vienna, done 21 March 1986, *not yet entered into force*, Cm. 244, 25 I.L.M. 543 (1986).
23. Cf., e.g., the so-called Headquarters Agreements between IGOs and their host states, spelling out such immunities and privileges in detail (for the United Nations, e.g., the Agreement between the United Nations and the United States of America regarding the Headquarters of the United Nations, entered into force 21 Nov. 1947, 11 U.N.T.S. 11, 554 U.N.T.S. 308 (1966), 687 U.N.T.S. 408 (1969), and the general Convention on the Privileges and Immunities of the United Nations, entered into force 17 Sept. 1946, 1 U.N.T.S. 15).
24. For INTELSAT, cf. Art. I(a), (b), (f), (g), II, VI, VII (of which § (a) provides: "The Assembly of Parties shall be composed of all the Parties and shall be the principal organ of INTELSAT."), IX & X, INTELSAT Agreement. For INMARSAT, cf. Artt. 1 (a), (b), (c), 2, 4, 9–15, INMARSAT Convention. For EUTELSAT, cf. Artt. I(a), (b), (e), (f), II, VII–XII, EUTELSAT Convention.
25. Headquarters Agreement between the Government of the United States of America and the International Telecommunications Satellite Organization, entered into force 24 Nov. 1976, T.I.A.S. 8542; resp. Protocol on INTELSAT Privileges, Exemptions, and Immunities, entered into force 9 Oct. 1980, Cmnd. 8103.
26. Headquarters Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the International Maritime Satellite Organization, entered into force 25 Feb. 1980, 1203 U.N.T.S. 131; resp. Protocol on the Privileges and Immunities of the International Maritime Satellite Organization (INMARSAT), entered into force 30 July 1983, 1328 U.N.T.S. 149.
27. Headquarters Agreement between EUTELSAT and the Government of the French Republic, done Nov. 15, 1985; resp. Protocol on the Privileges and Immunities of the European Telecommunications Satellite Organisation (EUTELSAT), entered into force 17 Aug. 1988, Cm. 1106, Cmnd. 305.
28. See Agreement Relating to the International Telecommunications Satellite Organization (ITSO) (hereinafter ITSO Agreement), as amended 17 Nov. 2000, amended version applied provisionally 18 July 2001, entered into force 30 Nov. 2004, Cm. 5092. Further, e.g., Sylvia Ospina, "International Satellite Organisations: Their Evolution from 'ISOs' to 'GCSs,'" in *Proceedings of the International Institute of Space Law 2010* (Reston: AIAA, 20n): 338–44; Lyall and Larsen, 337 ff.; Salin, *Satellite Communications Regulations in the Early 21st Century*, 468–72; Leo Millstein, "INTELSAT Restructuring," *Outer Space Z News* 2-2 (1999): 2–3; Francis Lyall, "On the Privatisation of INTELSAT," *Journal of Space Law* 28 (2000): 101–19.
29. See Convention on the International Mobile Satellite Organisation (hereinafter IMSO Convention), as amended 1998, amended version applied provisionally 15 April 1999, entered into

- force 31 July 2001, ATS 2001 No. 11. See further, e.g., Ulrike M. Bohlmann, Kai-Uwe Schrogl and Ilaria Zilioli, "Report of the 'Project2001' Working Group on Telecommunication," in *Project 2001—Legal Framework for the Commercial Use of Outer Space*, ed. Karl-Heinz Bockstiegel (Cologne: Carl Heymans, 2002): 219–20; Lyall and Larsen, 350 ff.; David Sagar, "INMARSAT: A New Beginning," *Outer Space Z News* 2-2 (1999): 6–8; David Sagar, "Inmarsat Since Privatisation," in *Proceedings of the Project 2001 Workshop on Telecommunication* (Cologne: Institute of Air and Space Law, 2000): 163–68; Salin, *Satellite Communications Regulations in the Early 21st Century*, 472–74; Ospina, "International Satellite Organisations: Their Evolution from 'ISOs' to 'GCSs,'" 345 at n. 7.
30. See Convention Establishing the European Telecommunications Satellite Organization (EUTELSAT) (hereinafter EUTELSAT Convention as amended), as amended 20 May 1999, amended version applied provisionally 2 July 2001, entered into force 28 Nov. 2002, Cm. 4572. Further, e.g., Christian Roisse, "EUTELSAT Privatisation," *Outer Space Z News* 2-2 (1999): 4–5; Lyall and Larsen, 360 ff.; Ospina, "International Satellite Organisations: Their Evolution from 'ISOs' to 'GCSs,'" at n. 7.
 31. Cf., e.g., Artt. I(a) & (p), II, IX, XI, XIV–XVIII, ITSO Agreement; Artt. 1(a) & (c), 6(1), 8, 12, 14, 16–18, IMSO Convention; and Artt. I(a) & (d), II(a), IV, VII, XI, XIII–XIV; XVI–XVIII, EUTELSAT Convention as amended, respectively. Further, e.g., Ospina, "International Satellite Organisations: Their Evolution from 'ISOs' to 'GCSs,'" 338–39.
 32. See Art. XIII(b) & (c), ITSO Agreement; Art. 9(5) & (6), IMSO Convention; and Art. XII(b) & (c), EUTELSAT Convention as amended; respectively; also Headquarters Agreement between the European Telecommunications Satellite Organisation (EUTELSAT) and the Government of the French Republic, done May 15, 2001, www.eutelsatigo.int/en/docs/HQ_agreement/pdf; see Lyall and Larsen, 362 incl. n.157.
 33. Art. III(a), ITSO Agreement; emphasis added. These Core Principles are further spelled out in Art. III(b). In addition, the functions of ITSO's main organ, the Assembly of Parties, in Art. IX(c) & (d), are essentially focused on that supervisory role. So also, e.g., Ospina, "International Satellite Organisations: Their Evolution from 'ISOs' to 'GCSs,'" 338–42; also Francis Lyall, "The Protection of the Public Interest in the Light of the Commercialisation and Privatisation of the Providers of International Satellite Telecommunications," in *Proceedings of the Forty-Seventh Colloquium on the Law of Outer Space* (Reston: AIAA, 2005): 442–44.
 34. Art. 3, IMSO Convention; emphasis added. The phrase "the Company" refers to Inmarsat. The remainder of Art. 3 on the substance of these "basic principles," as well as Art. 8 on the functions of the General Assembly of IMSO, further spell out the key elements of such supervisory function. See further, e.g., Francis Lyall, "The Protection of the Public Interest in the Light of the Commercialisation and Privatisation of the Providers of International Satellite Telecommunications," 444–45.
 35. Art. III(a), EUTELSAT Convention as amended; emphasis added. The remainder of Art. III(a) spells out the details of those Basic Principles. See further Art. IX for the functions of the Assembly of Parties in this regard.
 36. Art. I(d), ITSO Agreement; emphasis added. See further Preamble, in particular its 5th para. Cf. also Isabel Polley, "Commentary Paper: International Satellite Service Providers," in *Proceedings of the Project 2001 Workshop on Telecommunication* (Cologne: Institute of Air and Space Law, 2000): 170–71; Ospina, "International Satellite Organisations: Their Evolution from 'ISOs' to 'GCSs,'" 339.
 37. See Art. 1(b), IMSO Convention. See further Preamble, in particular its 6th para.; also e.g., Bohlmann, Schrogl, and Zilioli, 219; Sagar, "Inmarsat Since Privatisation," 166.

38. Art. II(b)(i), EUTELSAT Convention as amended; emphasis added. See further Preamble, in particular its 5th para. stating “the will to transfer the operational activities and associated assets of EUTELSAT to a limited liability company to be established under a national jurisdiction, such company to operate on a sound economic and financial basis having regard to accepted commercial principles” as a major reason for privatization.
39. Art. VI, Outer Space Treaty, provides in relevant part: “States Parties to the Treaty shall bear international responsibility for national activities in outer space . . . carried on . . . by non-governmental entities.”
40. Art. IX, Outer Space Treaty, refers to “an activity or experiment planned by it or its nationals in outer space.” See further, e.g., Sergio Marchisio, “Article IX,” in *Outer Space Treaty*, CoCoSL Vol. 1, ed. Stephan Hobe, Bernhard Schmidt-Tedd, and Kai-Uwe Schrogl (Cologne: Carl Heymanns, 2009): 179–80.
41. See the author’s *Private Enterprise and Public Interest in the European “Spacescape”* (Leiden: IIASL, 1998): esp. 17–22; Elisabeth Back-Impallomeni, “Article VI of the Outer Space Treaty,” in *Proceedings of the United Nations/Republic of Korea Workshop on Space Law* (Vienna: UNOOSA, 2004): 75; Kunihiko Tatsuzawa, “Policy and Law in Space Commercialization,” in *Legal Aspects of Space Commercialization*, ed. Kunihiko Tatsuzawa (Tokyo: CSP Japan, 1992): 19; René Oosterlinck, “Private Law Concepts in Space Law,” in *Legal Aspects of Space Commercialization*, ed. Kunihiko Tatsuzawa (Tokyo: CSP Japan, 1992): 45–48; Gabriella Venturini, “Private Actors and Space Law: The Influence of Competition on Satellite Communications,” in *Outlook on Space Law over the Next 30 Years*, ed. Gabriel Lafferranderie and Daphne Crowther (Dordrecht: Kluwer Law International, 1997): 59.
42. Cf., e.g., Michael Gerhard, “The State of the Art and Recent Trends in the Development of National Space Law,” in *Nationales Weltraumrecht/National Space Law*, ed. Christian Brünner and Edith Walter (2008): 65–66; Back-Impallomeni, “Article VI of the Outer Space Treaty,” 75–76; Elisabeth Back-Impallomeni, “Necessities for the Development of National Space Law,” in *Nationales Weltraumrecht/National Space Law*, ed. Christian Brünner and Edith Walter (2008): 28–30; Karl-Heinz Bockstiegel, “The Term ‘Appropriate State’ in International Space Law,” in *Proceedings of the Thirty-Seventh Colloquium on the Law of Outer Space* (Reston: AIAA, 1995): 77–79; Henri A. Wassenbergh, *Principles of Outer Space Law in Hindsight* (Dordrecht: Martinus Nijhoff, 1991): 24–29; the author’s *Private Enterprise and Public Interest in the European “Spacescape,”* 19–21.
43. See Manfred Lachs, *The Law of Outer Space—An Experience in Contemporary Law-Making* (Reprint Leiden: Brill, 2010): 114; Paul G. Dembling, “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including the Moon and Other Celestial Bodies,” in *Manual on Space Law*, ed. Nandasiri Jasentuliyana and Roy S. K. Lee, Vol. I (Dobbs Ferry: Oceana Publications, Inc.; Alphen aan den Rijn: Sijthoff & Noordhoff, 1979): 17; Back-Impallomeni, “Article VI of the Outer Space Treaty,” 73. Cf. also Tatsuzawa, 19; Back-Impallomeni, “Necessities for the Development of National Space Law,” 29.
44. See also Lachs, 114; Lyall and Larsen, 66; Wassenbergh, 28; Gerhard, “Article VI,” 112–14.
45. Cf. also, e.g., Lyall and Larsen, 378–79.
46. Contra, however, e.g. again, Dembling, “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including the Moon and Other Celestial Bodies,” 17: “it would appear that Article VI requires a certain minimum of licensing and enforced adherence to government-imposed regulations.”
47. Cf. also Wassenbergh, 22 ff.; also Lyall and Larsen, 66.
48. Case concerning the factory at Chorzów (Merits) (Germany v. Poland), Permanent Court of International Justice, Sept. 13, 1928, P.C.I.J., Ser. A, No. 17; see further, e.g., Shaw, 800–8, esp.

- 801; Brownlie, 434–40, esp. 435; Wallace, 175–76; Raymond Bender, *Space Transport Liability* (The Hague: Kluwer Law International, 1995): 284–89; the author’s “Liability versus Responsibility in Space Law: Misconception or Misconstruction?” in *Proceedings of the Thirty-Fourth Colloquium on the Law of Outer Space* (Reston: AIAA, 1992): 363–71.
49. One might refer, e.g., to the author’s *Private Enterprise and Public Interest in the European “Spacescape,”* 18–19; also Wassenbergh, 23 ff.
 50. Cf., e.g., Malanczuk, *Akehurst’s Modern Introduction to International Law*, 109–13; Brownlie, 299–308; Shaw, esp. 652–73; Wallace 111–19; also Gabriel Lafferranderie, “Jurisdiction and Control of Space Objects and the Case of an International Intergovernmental Organisation (ESA),” *Zeitschrift für Luft- und Weltraumrecht* 54 (2005): 230; on other bases accepted under international law for the exercise of sovereign jurisdiction.
 51. See, e.g., Shaw, 775–76; Malanczuk, *Akehurst’s Modern Introduction to International Law*, 127–28; Cassese, 72–74; also 91–97; Wallace, 133; Bohlmann and Süß, “The status of international intergovernmental organisations under the UN Outer Space Treaty System,” 9.
 52. Cf. Case Concerning the Barcelona Traction Light and Power Company, Limited (Second Phase) (Belgium v. Spain), International Court of Justice, 5 February 1970, I.C.J. Rep. 1970, 4, at 42, § 70.
 53. Cf., e.g., for Inmarsat, Bohlmann, Schrogl, and Zilioli, 219; Lyall and Larsen, 351; for Eutelsat, Lyall and Larsen, 360–61.
 54. See, e.g., available <http://en.wikipedia.org/wiki/Intelsat>; <http://www.intelsat.com/contactus/corporate/offices.asp>; <http://www.nytimes.com/2001/07/23/business/technology-satellite-company-is-trying-life-on-its-own.html?scp=1&sq=collections%20intelsat%202001&st=cse>; all accessed last 20 June 2012. Also, e.g., Lyall and Larsen, 341. In addition to the United States, which was designated as the Notifying Administration for all existing satellites and satellite network filings operating in or involving C and Ku-band frequency assignments at the time of privatization, the United Kingdom was designated as the Notifying Administration for various Ka-band and V-band satellite network filings that been previously been made on INTELSAT’s behalf prior to privatization. See Ospina, “International Satellite Organisations: Their Evolution from ‘ISOs’ to ‘GCSs,’” 340.
 55. Communications Act, June 19, 1934; 47 U.S.C. 151 (1988); 48 Stat.1064.
 56. Sec. 301, Communications Act.
 57. See Communications Satellite Facilities, *First Report and Order*, 22 FCC 2d 86 (1970), App. C, 1.
 58. See available: <http://en.wikipedia.org/wiki/Intelsat>; <http://www.intelsat.com/contact-us/corporate/offices.asp>; <http://www.nytimes.com/2001/07/23/business/technology-satellite-company-is-trying-life-on-its-own.html?scp=1&sq=collections%20intelsat%202001&st=cse>; all accessed 20 June 2012.
 59. Outer Space Act, July 18, 1986, 1986 Chapter 38, National Space Legislation of the World, Vol. I (2001), at 293, Space Law—Basic Legal Documents, E.I.
 60. Cf. Ospina, “International Satellite Organisations: Their Evolution from ‘ISOs’ to ‘GCSs,’” 346 at n. 15. It may be noted here, that Sec. 3(3), Outer Space Act, provides: “The Secretary of State may by order except other persons or activities from the requirement of a licence if he is satisfied that the requirement is not necessary to secure compliance with the international obligations of the United Kingdom.” See further on the Outer Space Act, e.g., Irmgard Marboe and Florian Hafner, “Brief Overview over National Authorisation Mechanisms in Implementation of the UN International Space Treaties,” in *National Space Legislation in Europe*, ed. Frans G. von der Dunk (Leiden: Brill, 2011): 35–36; Sa’id Mosteshar, “Regulation of Space Activities in the United Kingdom,” in *National Regulation of Space Activities*, ed. Ram S. Jakhu (Dordrecht:

- Springer, 2010): 359–62. However, as noted, the United Kingdom does act as Notifying Administration with the ITU; see Ospina, “International Satellite Organisations: Their Evolution from ‘ISOs’ to ‘GCSs,’” 340.
61. See Sec. 1, 2(1), Outer Space Act.
 62. Telecommunications Act, 1984 Chapter 12. See further Phillip J. Dann, “Law and Regulation of Satellite Communications in the United Kingdom,” *Journal of Space Law* 20 (1992): 17–21; cf. also Sa’id Mosteshar, *European Community Telecommunications Regulation* (London, Boston, Norwell: Graham & Trotman/M. Nijhoff, Kluwer Academic Publishers, 1993): 8.
 63. Law on space activities (*Loi relative aux operations spatiales*), *Loi n° 2008-518*, June 3, 2008, 34 *Journal of Space Law* (2008): 453, unofficial translations 34 *Journal of Space Law* (2008): 453, *Nationales Weltraumrecht/National Space Law* (2008): 211. Cf. the presentation of Philippe Clerc on the “French Implementation of Outer Space Treaty Art. VI under Space Operations Act June 3, 2008” at the Third Eilene M. Galloway Symposium on Critical Issues of Space Law, Washington, 11 December 2008. Available: <http://rescommunis.files.wordpress.com/2008/12/3rd-galloway-clerc.pdf>; Armel Kerrest de Rozavel and Frans G. von der Dunk, “Liability and Insurance in the Context of National Autorisation,” in *National Space Legislation in Europe*, ed. Frans G. von der Dunk (Leiden: Brill, 2011): 150–61; Marboe and Hafner, 39–40; Philippe Clerc and François Cahuzac, “Advance in the Implementation of the French Space Law on Space Operations in the Launcher Field,” in *Proceedings of the International Institute of Space Law 2009* (Reston: AIAA, 2010): 400–6; Philippe Achilleas, “Regulation of Space Activities in France,” in *National Regulation of Space Activities*, ed. Ram S. Jakhu (Dordrecht: Springer, 2010): 109–12.
 64. Artt.1(2) & (3), 2(3), Law on space activities.
 65. Cf. also, e.g., the definition on Wikipedia: “Privatisation (. . .) is the incidence or process of transferring ownership of a business, enterprise, agency, public service or property from the public sector (the state or government) to the private sector (businesses that operate for a private profit) or to private non-profit organisations.” Available: <http://en.wikipedia.org/wiki/Privatisation>.
 66. Art. V, resp. Art. III(b), ITSO Agreement; see also Art. I(j).
 67. Art. VII(a), ITSO Agreement. After that twelve-year period, the funding of ITSO is to be arranged through the Public Services Agreement. Cf. also Ospina, “International Satellite Organisations: Their Evolution from ‘ISOs’ to ‘GCSs,’” 340–44.
 68. In its original version, this was the Public Services Agreement between the International Mobile Satellite Organization and Inmarsat One Limited and Inmarsat Two Company (1998), IMSO Docs. k:legalwpaes3338L.
 69. Art. 8(b), IMSO Convention.
 70. See Art. 3, IMSO Convention; also Art. 2, Public Services Agreement.
 71. Art.10(1), sub (a), (b), & (c), respectively, IMSO Convention; see also Art. 15, Public Services Agreement, detailing such obligations to the extent of requiring that “the Company shall pay to the Organisation the sum of 300,000 pounds sterling annually for operational expenses, which amount shall be amended on the first and each subsequent anniversary of the date of this Agreement to reflect the change, if any, in the published UK Retail Price Index (RPI) compounded annually from the date of this Agreement” (para. (3)(a)), and that “the Company shall also establish a contingency fund of 100,000 pounds sterling in the name of the Organisation to meet the Organisation’s costs of arbitration or other legal proceedings in connection with enforcement proceedings taken by the Organisation under this Agreement” (para. (3)(d)).
 72. Art. I(l), EUTELSAT Convention as amended. Cf. also Art. II(d).

73. See Art. III, EUTELSAT Convention as amended.
74. Art. IX(a), (b), & (d), respectively, EUTELSAT Convention as amended.
75. Art. V(b), EUTELSAT Convention as amended.
76. See Preamble, Rescue Agreement; further, e.g., Carl Q. Christol, *The Modern International Law of Outer Space* (New York: Pergamon Press, 1982): 168–70; Roy S. K. Lee, “Assistance to and Return of Astronauts and Space Objects,” in *Manual on Space Law*, ed. Nandasiri Jasentuliyana and Roy S. K. Lee, Vol. I (Dobbs Ferry: Oceana Publications, Inc.; Alphen aan den Rijn: Sijthoff & Noordhoff, 1979): 57; Paul G. Dembling and Daniel M. Arons, “The Treaty on Rescue and Return of Astronauts and Space Objects,” *William and Mary Law Review* 9 (1968): 631 ff.
77. Art. 6, Rescue Agreement. See further, e.g., Dembling and Arons, “The Treaty on Rescue and Return of Astronauts and Space Objects,” 658–59.
78. Art. 6, Rescue Agreement.
79. Cf. Artt. 1–5, Rescue Agreement.
80. Cf. available: <http://www.unoosa.org/oosatdb/showTreatySignatures.do>; under “Treaty”: “Rescue Agreement.” Last accessed 20 June 2012.
81. See also analysis *supra*, para. 2.1.2.
82. Art. 6, Rescue Agreement.
83. Cf. Art. 8, Rescue Agreement; the procedural clauses of the Agreement are generally found in Artt. 7–10.
84. It may be noted that four of the five substantive Articles of the Rescue Agreement deal with astronauts and only the fifth one with space objects.
85. As Art. VI, Outer Space Treaty, *inter alia* equates, for the purpose of international responsibility and international space law generally, activities of non-governmental entities to those of the state itself, this *vice versa* justifies that state in taking up the cause of such entities in the international arena.
86. Art. 6, Rescue Agreement. See further Bin Cheng, *Studies in International Space Law* (Oxford: Clarendon Press, 1997): 279–80; Christol, *The Modern International Law of Outer Space*, 181.
87. See Art. I(c), Liability Convention, Art. I(a), Registration Convention; in both cases, the “launching state” is defined as “(i) A State which launches or procures the launching of a space object; (ii) A State from whose territory or facility a space object is launched.” Further *infra*, para. 4.2.1.
88. Cf. also a similar discussion at Wassenbergh, 22–31.
89. Similar questions were addressed with respect to the concept of the “appropriate state” in Art. VI, Outer Space Treaty, *vis-à-vis* the possible multitude of states internationally responsible under the same Art.; see, e.g., the author’s *Private Enterprise and Public Interest in the European “Spacescape,”* 18–22.
90. Art. 3, Rescue Agreement.
91. See the discussion *supra*, para. 2.2.2.
92. Again, such an argument is further substantiated by the general perception of the Rescue Agreement as an elaboration of the Outer Space Treaty with regard to the few clauses of the latter dealing with astronauts and space objects.
93. See, e.g., Carl Q. Christol, “International Liability for Damage Caused by Space Objects,” *American Journal of International Law* 74 (1980): esp. 354–56; Zhukov and Kolosov, 101; Christol, *The Modern International Law of Outer Space*, 60, 90–91; Bin Cheng, “International Liability for Damage caused by Space Objects,” in *Manual on Space Law*, ed. Nandasiri Jasentuliyana and Roy S.

- K. Lee, Vol. I (Dobbs Ferry: Oceana Publications, Inc.; Alphen aan den Rijn: Sijthoff & Noordhoff, 1979): 87, 97–98.
94. Art. I(a), Liability Convention, defines damage as including “loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organisations.”
 95. See Art. XXII(2), Liability Convention.
 96. E.g., Art. XXIII, Liability Convention, determines that the Convention leaves untouched any other relevant international agreement between states, and Art. XXV provides for the right to propose amendments to the Convention.
 97. See Art. I(c), Liability Convention, for the four alternative criteria to being a “launching State” for the purpose of the Convention; also *infra*, para. 4.2.1.
 98. Art. XXII(3), sub (b), Liability Convention.
 99. Cf. the case of the European Space Agency (ESA) (established by means of the Convention for the Establishment of a European Space Agency, entered into force 30 Oct. 1980, 14 I.L.M. 864 (1975)), which declared its acceptance of rights and obligations under the Liability Convention as per a Declaration of 23 September 1976 (Space Law—Basic Legal Documents, A.III.2, at 1), and set out to elaborate the internal consequences by means of a Resolution on the Agency’s Legal Liability, ESA/C/XXII/Res. 3, adopted Paris, 13 Dec. 1977 (International Organisations and Space Law, 1999): 35. See further Bohlmann and Süß, “The status of international intergovernmental organisations under the UN Outer Space Treaty System,” 9.
 100. Art. XXII(4), Liability Convention.
 101. Allusion is made here to the famous Case Concerning the Barcelona Traction Light and Power Company, Limited (Second Phase) (Belgium v. Spain), International Court of Justice, Febr. 5, 1970, I.C.J. Rep. 1970, 4; where the ICJ used the concept of the “corporate veil” created by the establishment of the Barcelona Traction Light and Power Company, a “veil” not to be “pierced,” as the key argument for not allowing Belgium to exercise diplomatic protection on behalf of the Belgian shareholders of the Company (who constituted the overwhelming majority thereof). See further, e.g., Bohlmann and Süß, “The status of international intergovernmental organisations under the UN Outer Space Treaty System,” 9; Shaw, 816–18; Malanczuk, *Akehurst’s Modern Introduction to International Law*, 266–67.
 102. As per 30 November 1987. See United Nations treaties and principles on outer space and related General Assembly resolutions, Addendum, Status of international agreements relating to activities in outer space as at 1 January 2009; ST/SPACE/11/Rev.2/Add.2, at 16; also, e.g., Nandasiri Jasentuliyana, “The Future of International Telecommunications Law,” in *Legal Visions of the 21st Century: Essays in Honour of Judge Christopher Weeramantry*, ed. Anthony Anghie and Garry Sturgess (The Hague: Kluwer Law International, 1998): 399 at n. 26.
 103. Nothing can be found in the EUTELSAT Convention as amended to suggest that, in transferring all operational activities and related assets from EUTELSAT to Eutelsat, the remaining EUTELSAT IGO has taken or would take steps to disavow the declaration made by EUTELSAT in 1987.
 104. Note that the definition of “procurement” is also far from universally agreed upon; cf. Gerhard, “The State of the Art and Recent Trends in the Development of National Space Law,” 67–68; Michael Chatzipanagiotis, “Registration of Space Objects and Transfer of Ownership in Orbit,” *Zeitschrift für Luft- und Weltraumrecht* 56 (2007): 235.
 105. Commission Directive amending Directive 88/301/EEC and Directive 90/388/EEC in particular with regard to satellite communications, 94/46/EC, Oct. 13, 1994, OJ L 268/15 (1994); see Artt. 2,

- 3, applying Commission Directive on the competition in the markets of telecommunications services, 90/388/EEC, June 28, 1990, OJ L 192/10 (1990), to the satellite sector. See further, e.g., Silvia Ospina, “International Satellite Service Providers,” in *Proceedings of the Project 2001 Workshop on Telecommunication* (Cologne: Institute of Air and Space Law, 2000): 155–56; Herbert Ungerer, “Transformation of ISOs: European Perspective,” *Outer Space Z News* 2-2 (1999): 13–16.
106. Open-market Reorganisation for the Betterment of International Telecommunications Act (hereinafter ORBIT Act), Public Law 106-180, 106th Congress, Mar. 17, 2000; see Secc. 2, 601–602, also Secc. 622–625, 641–643, 661.
107. See Patrick A. Salin, “An Illustration of the Privatisation Process of Outer Space,” *Zeitschrift für Luft- und Weltraumrecht* 50 (2001): 217–36; further Bohlmann, Schrogl, and Zilioli, 218–19; Patrick A. Salin, “Impact of Recent US Legislation and Regulations on International Satellite Communication Regulations”; *Zeitschrift für Luft- und Weltraumrecht* 48 (1999): 52–55; Salin, *Satellite Communications Regulations in the Early 21st Century*, 202 ff., 487–89.
108. Thus, Art. I(a), Liability Convention, makes reference to “loss of or damage to property of States or of persons, natural or juridical,” emphasis added; whereas Art. VIII refers to the *jus standi* of a state for its juridical persons. In addition, Art. VI refers to the concept of “juridical persons” in the context of exoneration from absolute liability.
109. Art. I(c), Liability Convention; cf. further Artt. II–V especially.
110. Cf. Artt. IV, V, Liability Convention.
111. Treaty between the Government of Russia and the Government of the Republic of Kazakhstan on the Leasing of the Baikonour-Complex, done Dec. 10, 1994; see Mahulena Hosková, “The 1994 Baikonour Agreements in Operation,” in *Proceedings of the Forty-Second Colloquium on the Law of Outer Space* (Reston: AIAA, 2000): 265–68.
112. For a very extensive discussion of such general issues, see, e.g., Pamela L. Meredith and George S. Robinson, *Space Law—A Case Study for the Practitioner* (Dordrecht, Boston: Martinus Nijhoff, 1992): esp. 71–155, 292 ff.; Valerie Kayser, *Launching Space Objects: Issues of Liability and Future Prospects* (Dordrecht: Kluwer Academic, 2001): e.g., 12 ff.
113. See also Chatzipanagiotis, e.g., 237–38.
114. The Liability Convention does not take any other state into consideration for apportionment of liability than the state(s) involved in the launch as “launching states,” and neither Liability Convention nor Registration Convention have allowed for qualification as launching/liable state after the launch, e.g., by in-orbit takeover. Even more pointedly, the Registration Convention does not even formally allow for reregistration. In other words: there is no formal manner to get rid of a status of “launching state” once acquired. See further on these issues Chatzipanagiotis, 229 ff.; Gerhard, “The State of the Art and Recent Trends in the Development of National Space Law,” 66.
115. As essentially based on the 1934 Communications Act; see further *supra*, para. 2.2.3.
116. First as per the Land Remote Sensing Commercialization Act, Public Law 98-365, 98th Congress, H.R. 5155, July 17, 1984, 98 Stat. 451; then as per the Land Remote Sensing Policy Act, Public Law 102-555, 102nd Congress, H.R. 6133, Oct. 28, 1992, 15 U.S.C. 5601, 106 Stat. 4163.
117. Commercial Space Transportation—Commercial Space Launch Activities, 51 U.S.C. Chapter 509. See further Marboe and Hafner, 40–42; Petra A. Vorwig, “Regulation of Private Launch Services in the United States,” in *National Regulation of Space Activities*, ed. Ram S. Jakhu (Dordrecht: Springer, 2010): 405–19; Kayser, 90–134.
118. Sec. 50912(a) (1), Commercial Space Transportation—Commercial Space Launch Activities.

119. Cf. Sec. 50912(a) (4) (A), Commercial Space Transportation—Commercial Space Launch Activities. The insurance is also to cover the tort (third-party) liability that arises under domestic US law *vis-à-vis* any applicant, suing in a private capacity in US courts.
120. Sec. 50912(a) (z) & (3), Commercial Space Transportation—Commercial Space Launch Activities.
121. Sec. 50904(a) (1) & (z), Commercial Space Transportation—Commercial Space Launch Activities; emphasis added. Cf. also sub (3) & (4).
122. Sec. 2(1), Outer Space Act, in conjunction with Sec. 1(a), requiring any British company which is “procuring the launch of a space object” to obtain a license.
123. Sec. 10(1), Outer Space Act; subsec. (2) only provides for two specific exceptions to this special rule which are not relevant here.
124. See Sec. 5(2) (f), Outer Space Act.
125. Cf. the UK Space Agency’s statement on the issue, available: <http://www.bis.gov.uk/ukspaceagency/what-we-do/space-and-the-growth-agenda/uk-capabilities-for-overseas-markets/the-outer-space-act-1986>. Earlier policy statements referred to an amount of £100,000,000, almost double the present applicable amount; see the 2010 Revised Guidance for Applicants Outer Space Act 1986, 2, available: <http://www.bis.gov.uk/assets/bispartners/ukspaceagency/docs/osa/guiforapp2010.pdf>.
126. Emphasis added. See for this discussion, e.g., Armel Kerrest de Rozavel, “Launching Spacecraft from the Sea and the Outer Space Treaty: The Sea Launch Project,” *Air & Space Law* XXIII (1998): 18–21; the author’s “Sovereignty Versus Space—Public Law and Private Launch in the Asian Context,” *Singapore of International & Comparative Law* 5 (2001): 38–42; Venturini, 59–60; Karl-Heinz Bockstiegel, “The Term ‘Launching State’ in International Space Law,” in *Proceedings of the Thirty-Seventh Colloquium on the Law of Outer Space* (Reston: AIAA, 1995): 80–83.
127. Art. 2(3), Law on space activities.
128. Art.1(2), resp. (3), Law on space activities.
129. Art. 6(1), resp. (II) & (III), Law on space activities.
130. Arianespace launches take place (so far exclusively) from Kourou, French Guyana, which is French territory; part of the launch facilities there, however, belong to ESA, hence making ESA, and in a subsidiary fashion all of its member states, co-liable under Art. I(c), Liability Convention. ESA, it should be noted, has deposited a declaration in accordance with Art. XXII: the Declaration of 23 September 1976 (International Organisations and Space Law (1999): 33.
131. The European Economic Area was created by the Agreement on the European Economic Area, entered into force 1 Jan. 1994, OJ L 1/3 (1994), to extend the scope of the larger part of the European Union’s Internal Market regime to a few other European states, notably (as of today) Iceland, Liechtenstein, and Norway.
132. In this sense, the French national space law was the first to explicitly conform to a fundamental principle of European Community law; that there is to be no discrimination between companies from one EU member state and those from another.
133. Only in cases where the third state is party to the Outer Space Treaty only but not to the Liability Convention would it make sense to use Article VII of the former as the basis for a claim instead of the comprehensive clauses of the latter.
134. See on this specific issue the author’s “Liability versus Responsibility in Space Law: Misconception or Misconstruction?,” 363–67.
135. Cf. also Chatzipanagiotis, 229 ff., also n. 40 at 237.
136. Art. 17, Law on space activities; see also Artt. 2, 13, & 14.

137. See Art. VIII(1), (2), & (3), Liability Convention.
138. Cf. Art. II, Outer Space Treaty, providing "Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;" further, e.g., Fabio Tronchetti, "The Non-Appropriation Principle under Attack: Using Article II of the Outer Space Treaty in its Defence," in *Proceedings of the Fiftieth Colloquium on the Law of Outer Space* (Reston: AIAA, 2008): 526–36; Patricia M. Sterns and Leslie I. Tennen, "Privateering and Profiteering on the Moon and Other Celestial Bodies: Debunking the Myth of Property Rights in Space," in *Proceedings of the Forty-Fifth Colloquium on the Law of Outer Space* (Reston: AIAA, 2003): 58–62; Frans G. von der Dunk et al., "Surreal estate: Addressing the issue of 'Immovable Property Rights on the Moon,'" *Space Policy* 20 (2004): 152–53; Ricky J. Lee and Felicity K. Eylward, "Article II of the Outer Space Treaty and Human Presence on Celestial Bodies: Prohibition of State Sovereignty, Exclusive Property Rights, or Both?," in *Proceedings of the Forty-Eighth Colloquium on the Law of Outer Space* (Reston: AIAA, 2006): 95–98.
139. See on this, e.g., Shaw, 810–14; Brownlie, 406–18, incl. discussions of the *Nottebohm Case*, (Second Phase) (*Liechtenstein v. Guatemala*), International Court of Justice, Apr. 6, 1955, I.C.J. Rep. 1955, 4.
140. Cf., e.g., *Case Concerning the Barcelona Traction Light and Power Company, Limited* (Second Phase) (*Belgium v. Spain*), International Court of Justice, Fehr. 5, 1970, I.C.J. Rep. 1970, 4; further Malanczuk, *Akehurst's Modern Introduction to International Law*, 266; Shaw, 815–18; Brownlie, 419–21.
141. See Art. XI(2), Liability Convention.
142. Whereas a decision of a Claims Commission to be established under the Liability Convention is only final and binding if both states parties to the dispute have in advance so agreed; see Art. XIX(2).
143. See *supra*, para. 4.2.3.
144. See esp. Artt. 14 & 17, Law on space activities; further *supra*, para. 4.2.4.
145. See *supra*, para. 5.2.2.
146. For Intelsat, in theory also Luxembourg (Intelsat's corporate headquarters being registered there) might try to assert a claim on the international level; cf. *supra*, para. 3.2.3; in that case however the absence of a genuine link of Intelsat's operations with Luxembourg and the absence of any relevant licensing requirement imposed by Luxembourg may minimize the chance of Luxembourg successfully doing so.
147. See Chatzipanagiotis, 235–36; Marietta Benkö, and Kai-Uwe Schrogl, "The UN Committee on the Peaceful Uses of Outer Space: Adoption of the Resolution on Enhancing Registration Practice and of the UNCOPUOS Space Debris Mitigation Guidelines," *Zeitschrift für Luft- und Weltraumrecht* 57 (2008): 336.
148. See, e.g., Gabriel Lafferranderie, "Jurisdiction and Control of Space Objects and the Case of an International Intergovernmental Organisation (ESA)," *Zeitschrift für Luft- und Weltraumrecht* 54 (2005): 228–29; Yun Zhao, "Revisiting the 1975 Registration Convention: Time for Revision?," in *Proceedings of the United Nations/Republic of Korea Workshop on Space Law* (Vienna: UNOOSA, 2004): 127; Christol, *The Modern International Law of Outer Space*, e.g., 213–14, 218–23; Aldo A. Cocca, "Registration of Space Objects," in *Manual on Space Law*, ed. Nandasiri Jasentuliyana and Roy S. K. Lee, Vol. I (Dobbs Ferry: Oceana Publications, Inc.; Alphen aan den Rijn: Sijthoff & Noordhoff, 1979): 176.

149. See Art. VII(1), Registration Convention, referring to Artt. VIII–XII, which dealt again with such procedural issues as signature (Art. VIII(1)), ratification (Art. VIII(2)), and amendment (Art. IX).
150. Cf. already Art. VIII, Outer Space Treaty (of which, as argued, the Registration Convention is an elaboration), which states: “a State Party to the Treaty 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.”
151. See extensively Lafferranderie, “Jurisdiction and Control of Space Objects and the Case of an International Intergovernmental Organisation (ESA),” 232–39, on the case of the European Space Agency.
152. Art. II(2), Registration Convention.
153. Art. XIII, Outer Space Treaty, provides in relevant part: “Any practical questions arising in connection with activities carried on by international intergovernmental organisations in the exploration and use of outer space, including the Moon and other celestial bodies, shall be resolved by the States Parties to the Treaty either with the appropriate international organisation or with one or more States members of that international organisation, which are Parties to this Treaty.”
154. Art. II(2), Registration Convention.
155. Corresponding to the fourth, third, and first criterion respectively for becoming a launching state under Art. I(a), Registration Convention.
156. Art. I(a), sub (i), Registration Convention; emphasis added.
157. Cf., e.g., Kayser, 34–36; Bruce A. Hurwitz, *State Liability for Outer Space Activities* (Dordrecht, Boston: Martinus Nijhoff, 1992): 22; Meredith and Robinson, 64; Bender, 280–81; Chatzipanagiotis, 235.
158. See *supra*, para. 4.2.2.
159. Most notably, of course, Artt. XIV–XX, Liability Convention, provide for such a commission to adjudicate claims regarding liability that could not be dealt with through diplomatic negotiation.
160. As per available: <http://www.usspaceobjectsregistry.state.gov/>.
161. 14 C.F.R. § 417(19).
162. See Art. II(1), resp. (2), Registration Convention.
163. Sec. 7(1), resp. (2), Outer Space Act.
164. As for the Registration Convention, France even was the very first state to ratify, on 17 December 1975 (see 1023 U.N.T.S. (1976), at 16); it ratified the Liability Convention shortly thereafter on 31 December 1975, clearly envisaging the two treaties to form a coherent set.
165. See *supra*, §§ 3.2, 4.2.1.
166. Art. 12, Law on space activities.
167. As indicated, normally of course for practical reasons this would actually be done by the host state of the ISO at issue.
168. See further, e.g., Christol, *The Modern International Law of Outer Space*, 605–10, 617 ff.; Simone Courteix, “International Legal Aspects of Television Broadcasting by Satellite,” in *Legal Aspects of Space Commercialization*, ed. Kunihiko Tatsuzawa (Tokyo: CSP Japan, 1992): 109–10.
169. Cf. Art. 10, 11, 13, & 14, Charter of the United Nations, entered into force 24 Oct. 1945, U.S.T.S. 993, 24 U.S.T. 2225; allowing the UN General Assembly to make recommendations to member states and the Security Council. See further, e.g., Shaw, 1212; Cassese, 278; Wallace, 29; also

- Vladimir Kopal, "The Role of United Nations Declarations of Principles in the Progressive Development of Space Law," *Journal of Space Law* 16 (1988): 8.
170. It was adopted on 10 December 1982 with 107 to 13 votes, and 13 states abstaining. See David I. Fisher, *Prior Consent to International Direct Satellite Broadcasting* (Dordrecht, Boston: Martinus Nijhoff, 1990): 45–46, esp. n. 11. Other sources indicate a different vote however: *Law of Outer Space*, ed. Stephan F. von Weick and Renate Platzoder (Baden-Baden: Nomos, 1987): 606–7, record 108 in favor, 13 against, 13 abstaining; Rudiger Wolfrum, "Direct-Broadcasting-Satellites," in *Handbuch des Weltraumrechts* [Handbook of Outer Space Law], ed. Karl-Heinz Bockstiegel (Cologne: Carl Heymanns, 1991): 405, records 108-12-13; *Space Law – Basic Legal Documents*, B.I.4.2, even adds up to 88-15-11 only. See further, e.g., Lyall and Larsen, 48–50.
171. Both Fisher, and Von Weick and Platzoder record the United Kingdom and the United States as voting against, with France abstaining, whereas *Space Law – Basic Legal Documents* records all three states as voting against. Wolfrum does not indicate any specific state votes. With respect to Intelsat, its links with Luxembourg do not change the equation, as also Luxembourg belonged to the states voting against.
172. Princ. 9, G.A. Res. 37/92; emphasis added.
173. See Princ. 4, G.A. Res. 37/92.
174. Emphasis added.
175. Under general international law, jurisdiction of a state over its territory and jurisdiction over its nationals constitute the two versions of jurisdiction universally recognized and hence, as to the principles behind it, uncontested; see, e.g., Wallace, 111–19; Shaw, 645–85, esp. 652 ff.
176. Cf. *supra*, § 6.1.
177. Cf. Artt. III, V; ITSO Agreement; Artt. 3, 4, IMSO Convention; Art. 2, Inmarsat PSA. Further Lyall and Larsen, 338–41, 351–52, 363–64, who at 340, n. 74, assert: "In fact the Public Service Agreement was swept aside when Zeus Holdings bought 100 percent of the share capital of INTELSAT [meant was Intelsat]."
178. For such more general analyses, reference might be had to Lyall and Larsen, 199–244; Lyall, *Law and Space Telecommunications*, 311–96; Ram S. Jakhu, "Legal Issues of Satellite Telecommunications, the Geostationary Orbit, and Space Debris," *Astropolitics* 5 (2007): 175–76, 180 ff.; Ram S. Jakhu & Virginia R. Serrano, "International Regulation of Radio Frequencies for Space Services," in *Proceedings of the Project 2001 Workshop on Telecommunication* (Cologne: Institute of Air and Space Law, 2000): 56 ff., 108–15; Ingo Baumann and Hans Dodel, "The ITU Filing of Satellite Systems," in *Contracting for Space*, ed. Leslie J. Smith and Ingo Baumann (Farnham: Ashgate, 2011): 367–81; Maria Buzdugan, "Recent Challenges Facing the Management of Radio Frequencies and Orbital Resources Used by Satellites," in *Proceedings of the International Institute of Space Law 2010* (Reston: AIAA, 2011): 327–33; Janet C. Thompson, "Space for Rent: The International Telecommunications Union, Space Law, and Orbit/Spectrum Leasing," *Journal of Air Law and Commerce* 62 (1996): 286 ff.; Frances Lyall, "The Role of the International Telecommunication Union," in *Outlook on Space Law Over the Next 30 Years*, ed. Gabriel Lafferranderie and Daphne Crowther (Dordrecht: Kluwer Law International, 1997): 253–58; Philippe Achilleas, "Regulatory Framework for Authorising Satellite Applications: The Case of Telecommunications," in *Contracting for Space*, ed. Leslie J. Smith and Ingo Baumann (Farnham: Ashgate, 2011): 104–5.
179. Cf. Art. 44(2), ITU Constitution, following the 1998 amendment as per Instrument amending the Constitution of the International Telecommunication Union of 22 December 1992, entered into force 1 Jan. 2000, ATS 2000, No. 8: "In using frequency bands for radio services, Member States shall bear in mind that *radio frequencies and any associated orbits, including the geostationary-satellite orbit*, are limited natural resources and that they must be used rationally, efficiently and

- economically, in conformity with the provisions of the Radio Regulations, so that countries or groups of countries may have equitable access to *those orbits and frequencies*, taking into account the special needs of the developing countries and the geographical situation of particular countries"; emphasis added. Further, e.g., Thompson, 290–98; Ram S. Jakhu, "Legal Issues Relating to the Global Public Interest in Outer Space," *Journal of Space Law* 32 (2006): 72 ff.
180. Section 1.16, Radio Regulations. See further Art. 51 Sec. IV, for the actual Table of Frequency Allocations.
 181. In reality, of course, the process is much more complex, also since some allocations are exclusive, others are primary, and still others are secondary; moreover, allocations can be granted in many cases on a regional or even national basis only; cf. Art. 5, Sec. II, Radio Regulations; further, e.g., Lyall, *Law and Space Telecommunications*, 347–54.
 182. See Art. 14, Radio Regulations.
 183. See further Lyall, *Law and Space Telecommunications*, 374–80.
 184. Section 1.17, Radio Regulations.
 185. Section 1.2, Radio Regulations; emphasis added. See also no. 1002, Annex, ITU Constitution.
 186. Section 1.18, Radio Regulations; emphasis added. In practice, of course, in many cases domestic discussions on future assignments of certain frequencies would precede (as well as guide) the relevant state's efforts to achieve allocation of those frequencies where, in case such allocation would be successfully achieved, the actual assignment might become a rather succinct formality.
 187. Art. 6(2), ITU Constitution; emphasis added. Cf. also Art. VI, Outer Space Treaty, essentially providing for a similar level of international responsibility.
 188. No. 1007, Annex, ITU Constitution.
 189. See Art. 19, ITU Convention, as amended.
 190. See, e.g., Artt. 2, 4; also Artt. 3, 8, 10, ITU Constitution.
 191. It may be reiterated here, that allocations are generally handled at the bi- or triennial ITU World Radio Conferences, that is essentially by all ITU member states collectively, whereas requests for allotment concern activities of individual states addressed on an ongoing basis to the Radio Regulations Board.