Towards More Effective Settlement of Disputes in the Space Sector

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For decades, spacefaring entities remained few in number and could hardly constitute any practical hindrance to each other's activities. Differing opinions in space law meant little else but disputes of an academic nature. The strategic relevance of space exploration and an emphasis on state sovereignty made stakeholders very reluctant to commit themselves to settle even more substantive disagreements in a legally binding manner.

The space sector has since expanded considerably. Private entities now play a key role. However, UN space treaties do not even mention private enterprises. Other legal instruments cannot remedy the situation sufficiently. The space sector needs an international dispute resolution mechanism which is binding and detailed enough to be effective, and which also accommodates non-state actors.

This paper introduces some international legal instruments available for the settlement of space-related disputes. Furthermore, it examines possibilities for creating better mechanisms for this purpose. The most promising candidate in this respect appears to be arbitration.

1. Introduction[2]

The core of United Nations (UN) space law consists of five treaties negotiated in the 1960s and the 1970s. These treaties contain few provisions for dispute settlement. They only call for consultation procedures, not for binding third party dispute resolution. The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (hereinafter "the Outer Space Treaty", or OST) and the 1972 Convention on International Liability for Damage Caused by Space Objects (hereinafter "the Liability Convention") will be examined in more detail below.

Another important regulator of space activities is the UN-sponsored International Telecommunication Union (ITU) which strives to guarantee undisturbed telecommunication activities, including those that are space-based. In ITU dispute resolution, the last resort is binding settlement by arbitration. However, the ITU system is essentially geared toward prior coordination of telecommunication satellite activities and thereby the prevention of disputes. It has no formal dispute settlement body, and no steps will be taken for resolving disputes unless ITU member states vote for such action. In practice, this is never done.[3] In fact, although a significant number of contracts in the telecommunications sector (also beyond

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[2] This article is largely based on the author's research previously published in Viikari, Lotta (2008) *Dispute Resolution in the Space Sector: Present Status and Future Prospects*. Rovaniemi: Lapland University Press.

[3] See von der Dunk, Frans G. (2002) Space for Dispute Settlement Mechanisms – Dispute Resolution Mechanisms for Space? A few legal considerations. 2001 IISL/ECSL Symposium Legal Aspects of Dispute Resolution Mechanisms, Vienna, 2 April 2001. In *Proceedings of the 44th Colloquium on the Law of Outer* Space, IISL, 1-5 October 2001 (Toulouse), AIAA, 442-452 (p. 451).

space telecommunications) call for arbitration, it is seldom used. Instead, the most common dispute resolution method is negotiation.[4]

Outside the UN framework, there are numerous more specific international legal instruments for limited but important fields of space cooperation. They include those governing the activities of operational space organizations such as the European Space Agency (ESA). A different type of cooperative arrangement is the International Space Station (ISS). On one hand, such activities necessitate international cooperation; on the other, states have a strong desire to be involved.[5] In order to facilitate smooth cooperation, the legal instruments of international space organizations contain relatively exhaustive dispute resolution systems. Typically, they call for binding third party settlement of conflicts, usually by arbitration.[6] However, recourse to arbitration tends to be a last resort only.

UN space law and legal instruments of space organizations do not constitute a comprehensive dispute settlement system for space activities. Private enterprise usually – even at best – still remains only an object.[7] The more favourable fora for the private sector are dispute settlement mechanisms offered by national jurisdictions. However, they remain constrained at the domestic level and may entail problems in disputes involving transboundary elements. Moreover, they can vary significantly from jurisdiction to jurisdiction. Heterogeneity is an obvious problem also with dispute settlement mechanisms of bilateral space-related agreements.[8]

2. Outer Space Treaty and Liability Convention

The 1967 Outer Space Treaty is the "constitution" of international space law. Nevertheless, as regards settlement of disputes, it goes no further than emphasizing co-operation and demanding consultations (Art. IX). Furthermore, the consultations refer to a technique to *avoid* conflicts rather than to solve them.[9] In addition, Article III provides that:

> States Parties to the Treaty shall carry on activities in the exploration and use of outer space […] in accordance with international law, including the Charter of the United Nations, in the

[4] Hill, R. and J. Watkinson (general eds.) (1999) *Telecommunications Disputes: specificities, problems and solutions*, White Paper (pp. 20-21).

[5] See Stojak, Lucy (1997) Commentary at the ICJ/UNITAR Colloquium to Celebrate the 50th Anniversary of the Court. In Peck, C. and R. S. Lee (eds.): *Increasing the Effectiveness of the International Court of Justice,* Proceedings of the ICJ/UNITAR Colloquium to Celebrate the 50th Anniversary of the Court, Legal Aspects of International Organization, Vol. 29. The Hague, Boston, London: Martinus Nijhoff Publishers, 452-455 (p. 453).

[6] See Böckstiegel, Karl-Heinz (1994) Arbitration of Disputes Regarding Space Activities. In *Proceedings of the 36th Colloquium on the Law of Outer Space,* IISL, 16-22 October 1993 (Graz), AIAA, 136-143 (pp. 137-138).

[7] Interestingly, the ITU has started to treat private parties as having their own independent status within the organization. von der Dunk (2002) *supra* note 3 (p. 446).

[8] For a short overview of dispute settlement provisions of bilateral treaties, see Cocca, Aldo Armando (1992) Law Relating to Settlement of Disputes on Space Activities. In Jasentuliyana, N. (ed.): *Space Law: development and scope*. Westport (Connecticut), London: Praeger, 191-204 (pp. 196-197).

[9] Jasentuliyana, Nandasiri (1983) Conflict Resolution in Outer Space: new approaches – old techniques. In Dupuy, R.-J. (ed.): *The Settlement of Disputes on the New Natural Resources,* Workshop, The Hague, 8-10 November 1982. The Hague, Boston, London: Martinus Nijhoff Publishers, 229-241 (p. 233).

> interest of maintaining international peace and security and promoting international co-operation and understanding.[10]

Thereby the OST indirectly refers the question to the traditional methods of international dispute settlement listed in the UN Charter.

However, no dispute settlement procedure resulting in a legally binding decision is compulsory under the UN Charter either. The Statute of the ICJ (being part of the UN Charter) *allows* states to declare themselves subject to the Court's compulsory jurisdiction, either on a case by case basis (Art. 36.1) or by making a unilateral declaration accepting the Court's compulsory jurisdiction over future disputes (Art. 36.2).[11] Only a few states which can truly be labeled "spacefaring" have submitted a declaration under Article 36.2. Furthermore, the fact that the ICJ only hears disputes between states (Art. 34.1) disqualifies a vast number of the entities participating in space activities today.

The 1972 Liability Convention is the other broadly ratified UN space treaty addressing the issue of dispute settlement. As is noted in the preamble of the convention, "notwithstanding the precautionary measures to be taken by States and international intergovernmental organizations involved in the launching of space objects, damage may on occasion be caused by such objects" (para. 3). If damage occurs, there is an obvious need for rules on liability. It may also well be that liabilities cannot be determined without third-party intervention, hence the need for dispute resolution mechanisms.

Pursuant to the Liability Convention, all states launching a space object ("launching states") together are jointly and severally liable for any damage caused by it (Art. V).[12] The convention allows states to assert liability claims on their own behalf and on behalf of their corporations or individuals (Art. VIII.1). Claims must be presented to the liable launching state(s) through diplomatic channels[13] within one year of the date on which the damage occurred (Art. X.1) or within one year following the date when the state suffering damage learned (or could reasonably be expected to have learned) of the occurrence of the damage or the identity of the liable launching state (Art. X.2). Starting from the presentation of claims, there is another one-year time limit for reaching a settlement. If the dispute is not resolved within that time, the parties must, at the request of either one of them, establish a Claims Commission (Art. XIV).

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[10] The ambiguous wording was the result of the divergent views of the US and the USSR. The US proposed that disputes concerning the interpretation and application of the OST could be referred to the International Court of Justice, whereas the USSR was willing to accept nothing beyond a consultation requirement. van Traa-Engelman, Hanneke Louise (1989) *Commercial Utilization of Outer Space: legal aspects.* Rotterdam (p. 232).

[11] On the competence and jurisdiction of the ICJ in more detail, see, e.g., Collier, John and Vaughan Lowe (1999) *The Settlement of Disputes in International Law: institutions and procedures.* Oxford: Oxford University Press (pp. 124-154).

[12] The term "launching state" is problematic. Pursuant to Art. I, it means "(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". Such a broad definition can also encompass states which are in no way able to control a particular space mission in practice.

[13] Claims can also be presented through the UN Secretary-General or with the help of another state, in case the launching state and the claimant state do not maintain diplomatic relations (Art. IX).

The Claims Commission is composed of one member chosen by each state party to the dispute and a chairman chosen jointly by them (Art. XV.1). If the parties cannot agree on a chairman, either one of them can ask the UN Secretary-General to appoint the chair (Art. XV.2). The Claims Commission decides by majority vote (Art. XVI.5) on the merits of the case and the amount of compensation (Art. XVIII). The Claims Commission has another one-year time limit to make its decision (Art. XIX.3). The decisions are public (Art. XIX.4) but only recommendatory in nature, unless the parties have agreed beforehand to the contrary (Art. XIX.2).

The non-binding nature of the Liability Convention dispute resolution mechanism has often been criticized. Its dispute settlement technique has been depicted as conciliation only, at least if the parties have not agreed that the Claims Commission's decision will be binding on them (or if they have done so only after the commission's decision).[14] Where the parties have made such an agreement prior to the commencement of the procedure, the Claims Commission could be considered as an ad hoc tribunal.[15] It has also been described as a "semi-arbitration court".[16]

Even if some launching states were willing to accept the decisions of the commission as compulsory, this would not be sustainable in practice. The modern space sector is highly competitive, and joint space ventures are more of a rule than an exception. This, combined with the joint and several liability established by Article V, makes it unfeasible for a launching state to declare acceptance of the compulsory nature of the Claims Commission rulings if the other launching states (or most of them, at least) do not do the same. The recommendatory nature of the awards is somewhat cushioned by the requirement that the parties are to consider a Claims Commission decision in good faith and that it must be rendered promptly and made public (Art. XIX).[17] Moreover, international public opinion could make it difficult for a state to refuse to pay compensation decided by the commission.[18]

The Liability Convention explicitly permits the taking of legal action in domestic venues as well: "nothing in this convention shall prevent a State, or natural or juridical persons it might represent, from pursuing a claim in the courts or administrative tribunals or agencies of a launching state" (Art. XI.2). While proceeding on the national level, states are, however, prohibited from submitting claims pursuant to the Liability Convention's procedures (Art. XI.2). This, combined with the one-year time limit for presenting a claim for compensation to a launching state, can in practice compel the claimant to choose between domestic procedures

[14] Cocca, Aldo Armando (1980) To what extent are further procedures for the settlement of space law disputes considered necessary? In Böckstiegel K.-H. (ed.): *Settlement of Space Law Disputes: the present state of the law and perspectives of further development,* Proceedings of an International Colloquium, Munich, 13-14 September 1979, SLW, Band 1. Köln, Berlin, Bonn, München: Heymann, 137-150 (p. 139).

[15] Jasentuliyana (1983) *supra* note 9 (pp. 235-236); Böckstiegel, Karl-Heinz (1993b) Settlement of Disputes Regarding Space Activities. *Journal of Space Law,* Vol. 21, No. 1, 1-10 (p. 3).

[16] Supancana, Ida Bagus Rahmadi (1998) *The International Regulatory Regime Governing the Utilization of Earth-Orbits*. Leiden: Rijksuniversiteit te Leiden (p. 187).

[17] Gorove, Stephen (1991) *Developments in Space Law: issues and policies,* Utrecht Studies in Air and Space Law, Vol. 10. Dordrecht, Boston, London: Martinus Nijhoff Publishers (p. 237).

[18] Kerrest, Armel (2002) Dispute Resolution Mechanism for Damage Caused by Space Objects, IISL-ECSL Symposium, UNCOPUOS Legal sub-committee meeting, Vienna, 1 April 2001. In *Proceedings of the 44th Colloquium on the Law of Outer Space*, IISL, 1-5 October 2001 (Toulouse), AIAA, 462-469 (pp. 465-466).

and the Liability Convention system: a domestic claim for compensation for space-related damages can rarely be expected to be resolved within a year.[19]

Another obvious weakness is that private parties and intergovernmental organisations (IGOs) must rely on the cooperation of states to assert any claims. This can be detrimental to their interests as governments may not always be willing to act on their behalf due to political reasons, for instance.[20] Even if claims are presented, the diplomatic negotiations may proceed for an indefinite period of time: the Claims Commission is formed only if one of the parties so requests. Its awards are recommendatory only. It is also possible that the private entity suffering damage is not satisfied with the amount of compensation which the "home" state is willing to disburse to it from the sum recovered from the launching state.[21]

On the whole, the dispute resolution system of the Liability Convention involves significant uncertainties: not all disputes which arise will ever be introduced into the process; it can last very long, and the decisions rendered may be far from satisfactory and, most likely, not even enforceable.[22] Thus far this has not been a major problem because there has been little use for the convention. The only claim ever presented under the Liability Convention has been that of Canada in the *Cosmos 954* case, where a Soviet nuclear-powered satellite disintegrated over remote northern areas of Canada in 1978. The initial Canadian claim was based on, i.a., the Liability Convention.[23] However, even this conflict was not ultimately resolved under the Liability Convention. In 1981, Canada and the USSR signed a protocol[24] which establishes only that the Soviet Union agrees to pay three million Canadian dollars (and that Canada in turn accepts this sum) "in full and final settlement of all matters connected with the disintegration of the Soviet satellite Cosmos 954 in January 1978". There is no reference to the Liability Convention in the protocol.[25]

3. International Telecommunication Union

Pursuant to the Constitution of the ITU:

> Member States may settle their disputes on questions relating to the interpretation or application of this Constitution, of the Convention or of the Administrative Regulations [of the

[19] Ibid. (pp. 463-464).
[20] See Gorove (1991) *supra* note 17 (p. 232).
[21] Gorove, Stephen (1980) Dispute Settlement in the Liability Convention. In Böckstiegel, K.-H. (ed.): *Settlement of Space Law Disputes: the present state of the law and perspectives of further development,* Proceedings of an International Colloquium, Munich, 13-14 September 1979, SLW, Band 1. Köln, Berlin, Bonn, München: Heymann, 43-50 (p. 44).
[22] See also White, Wayne N. Jr. (1993) Resolution of Disputes Arising in Outer Space. In *Proceedings of the 35th Colloquium on the Law of Outer Space,* IISL, 28 August – 5 September 1992 (Washington, DC), AIAA, 183-191 (pp. 185-186).
[23] Statement of the Canadian Claim, paras. 14-24.
[24] Protocol Between the Government of Canada and the Government of the Union of Soviet Socialist Republics 1981.
[25] Interestingly, a later bilateral Agreement between Canada and the United States of America on Liability for Loss or Damage from Certain Rocket Launches (concluded in 1974) stipulates that "in the event that a claim arising out of these launches is not settled expeditiously in a mutually acceptable manner, the [Governments] shall *give consideration* to the establishment of a Claims Commission such as that provided for in Article XV of the [Liability Convention] with a view to arriving at a prompt and equitable settlement" (emphasis added).

> ITU] by negotiation, through diplomatic channels, or according to procedures established by bilateral or multilateral treaties concluded between them for the settlement of international disputes, or by any other method mutually agreed upon (Art. 56.1).

Hence the ITU dispute resolution system allows the parties to resort very freely to any method "mutually agreed upon". If none of the above methods is adopted, an arbitration procedure is available as a last resource: "any Member State party to a dispute may have recourse to arbitration in accordance with the procedure defined in the Convention" (Art. 56.2).

Further details of the ITU arbitration procedure are elaborated in the ITU Convention. Disputing parties can decide whether the arbitration is entrusted to individuals, administrations or governments (Art. 41.2).[26] However, the system is reserved for states only. The arbitral decision is "final and binding upon the parties to the dispute" (Art. 41.10), but there is no effective enforcement mechanism. In practice, the ITU dispute resolution system has remained a dead letter. However, the most likely reason for this is that arbitration is only the last resort. Most parties have successfully settled their disputes through other means (allowing more privacy) than the official ITU forum.[27]

4. Other legal arrangements

The commercial space industry has long used clauses providing for arbitration, even in contracts with state institutions and IGOs. One can expect that the popularity of arbitration will only increase and the parties (public and private) will typically resort to the established rules and institutions for it.[28] In particular, the International Chamber of Commerce (ICC) – although blamed for excessively high fees, based on a percentage of the amount in dispute[29] – has been a popular forum for arbitration in space activities.[30]

The legal instruments of international space-related organizations are also interesting. For instance, the ESA provides for final and binding resolution of disputes through arbitration in a variety of instruments related to its activities, both as concerns disputes between member

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[26] If they are not able to agree about this within one month after notice of submission of the dispute to arbitration, the arbitration will be entrusted to governments.

[27] Noll, Alfons A. E. (2002) The Various Approaches to Dispute Settlement Concerning International Telecommunications. In The International Bureau of the PCA (ed.): *Arbitration in Air, Space and Telecommunications Law: enforcing regulatory measures,* Papers emanating from the Third PCA International Law Seminar, 23 February 2001, The Permanent Court of Arbitration Peace Palace Papers. The Hague, London, New York: Kluwer Law International, 161-192 (pp. 170-171).

[28] See Böckstiegel (1994) *supra* note 6 (pp. 137, 140-141).

[29] Bostwick, Phillip D. (1995) Going Private with the Judicial System: making creative use of ADR procedures to resolve commercial space disputes. *Journal of Space Law*, Vol. 23, No. 1, 19-42 (p. 33). In space activities, this can amount to particularly high fees as the sums in dispute very often are considerable. van den Hout, Tjaco T. (2002) Introduction. In The International Bureau of the PCA (ed.): *Arbitration in Air, Space and Telecommunications Law: enforcing regulatory measures,* Papers emanating from the Third PCA International Law Seminar, 23 February 2001, The Permanent Court of Arbitration Peace Palace Papers. The Hague, London, New York: Kluwer Law International, xiii-xx (p. xv).

[30] Ravillon, Laurence (2004) Space Law and Mechanisms for Dispute Settlement. *ECSL News,* No. 28 (December 2004), 2-3 (p. 2).

states as well as those arising in the external relations of the ESA.[31] Disputes between member states, or between any of them and the agency, concerning interpretation or application of the ESA Convention will be submitted to arbitration at the request of any disputing party (Art. XVII.1). The same applies to disputes which arise from damage caused by the agency (Annex I, Art. XXVI). Unless the parties to a dispute otherwise agree, the arbitration procedure has to be organized in accordance with the conditions outlined in Article XVII and additional rules adopted by the ESA Council (Art. XVII.2).

The arbitration tribunal consists of three members (Art. XVII.3), of each party nominates one. The two parties together nominate the third arbitrator (the chair). Other ESA member states (which are not parties to the dispute) may also intervene in the proceedings if the tribunal agrees to that (Art. XVII.4). The tribunal determines its seat and establishes its rules of procedure (Art. XVII.5). Awards are made by majority vote. An award is binding and cannot be appealed; it must be complied with without delay (Art. XVII.6). The ESA Council Rules of Procedure define in more detail, e.g., how the arbitral tribunal is to be set up, the procedure to be applied, and the documentation needed.

In the same vein, Annex I to the ESA Convention directs the agency to provide for arbitration when making contracts.[32] The arbitration clause or agreement must specify the applicable law and place of arbitration (Annex I, Art. XXV.1). Accordingly, the "General Clauses and Conditions for ESA Contracts" contains a standard clause, Clause 13, for this purpose. It provides that in case no other stipulation is made, a dispute "shall be finally settled in accordance with the Rules of Conciliation and Arbitration of the [ICC]" (Clause 13.3).

Cooperation agreements between the ESA and other international organisations, institutions and governments consistently resort to arbitration. They contain provisions for consultation, but, as a second step, they envisage the establishment of an arbitration tribunal for the final resolution of disputes. Even the legal instruments of large-scale international projects refer to arbitration as a means of resolving disputes, albeit only after the exhaustion of a multi-layer consultation process. For instance, pursuant to the Agreement on the Civil International Space Station (ISS), disputes should, in the first instance, be settled through consultations, either between the relevant space agencies (Art. 23.1) or at the level of governments (Art. 23.2). Even multilateral government-level consultations are possible (Art. 23.2). Finally, "if an issue not resolved through consultations still needs to be resolved, the concerned Partners may submit that issue to an agreed form of dispute resolution such as conciliation, mediation,

[31] Interestingly, the Convention for the Establishment of a European Space Research Organization (ESRO), which is – along with the European Organization for the Development and Construction of Space Vehicle Launchers (ELDO) – a predecessor of the ESA, provided that a dispute which was not settled by the good offices of the ESRO Council will be submitted to the ICJ, unless the disputing member states agree on some other mode of settlement. See Bohlmann, Ulrike M. (2002) Experience of the European Space Agency with Dispute Settlement Mechanisms. In The International Bureau of the PCA (ed.): *Arbitration in Air, Space and Telecommunications Law: enforcing regulatory measures,* Papers emanating from the Third PCA International Law Seminar, 23 February 2001, The Permanent Court of Arbitration Peace Palace Papers. The Hague, London, New York: Kluwer Law International, 157-160 (p. 158).

[32] Pursuant to Annex I, Art. IV, the ESA enjoys far-reaching immunity from jurisdiction and execution as an international organization. This is counterbalanced by the obligation to provide for arbitration in the contracts it concludes. Farand, André (2002) The European Space Agency's Experience with Mechanisms for the Settlement of Disputes. In *Proceedings of the 44th Colloquium on the Law of Outer Space*, IISL, 1-5 October 2001 (Toulouse), AIAA, 453-461 (pp. 454-456).

or arbitration" (Art. 23.4). Binding dispute settlement is thus possible only if all parties concerned agree. This requires the conclusion of a specific agreement defining the dispute resolution method. Arbitration is specifically mentioned as one option, but it is up to the disputing parties to decide which form of dispute settlement they prefer.[33]

More limited international agreements in space telecommunications than the ITU system also typically contain arbitration provisions, even compulsory ones.[34] One reason may be that such arrangements often are predominantly technical and thus relatively seldom involve politically sensitive issues.[35] This is likely to make states more inclined to accept even binding settlement of disputes. Furthermore, the important financial implications typical of space telecommunication conflicts can make states more receptive to compulsory arbitration.[36] Obviously, political and social homogeneity of states is likely to help, as is similarity in economic and legal systems.[37] Furthermore, the fewer states that are involved in a cooperative arrangement or international organization, the lesser their hesitation to submit to binding dispute settlement mechanisms tends to be.[38]

On balance, mandatory dispute settlement methods (normally arbitration) are usually found only in legal instruments of organizations that are either regional or operate in a specific, limited area of space activities.[39] The need for dispute settlement has been somewhat reduced in space activities thanks to the wide-spread practice of applying cross-waiver of liability clauses. Nevertheless, many forms of space activity carry significant political undertones which both generate disputes and make their resolution problematic. The ever growing number of space activities and the considerable economic interests at stake are likely to make the weaknesses of dispute resolution systems in the space sector increasingly evident.

5. ILA draft convention on the settlement of disputes related to space activities

The International Law Association has taken an important tentative but comprehensive step in the settlement of international space-related conflicts by adopting an "ILA Draft Convention on the Settlement of Space Law Disputes". The system envisioned by the ILA emphasizes the possibilities of private entities to utilize dispute settlement mechanisms on as equal a footing as possible with states.

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[33] For a more detailed assessment, see Farand (2002) *supra* note 32 (pp. 458-459).
[34] For a more detailed assessment, see Viikari (2008) *supra* note 2 (pp. 69-72).
[35] See Williams, Sylvia-Maureen (1997) Dispute Settlement and Space Activities: a new framework required? In *Proceedings of the 39th Colloquium on the Law of Outer Space,* IISL, 7-11 October 1996 (Beijing), AIAA, 61-67 (p. 61).
[36] For instance, although the USSR (and other socialist countries) used to be generally opposed to compulsory dispute resolution internationally, they decided to accept compulsory arbitration in the context of the INMARSAT (International Maritime Satellite Organization), because of the financial and technical nature of the organization. However, this concerned only "material claims", not application and interpretation of the legal instruments of the organization (as that, in the Soviet view, involved relations among sovereign states). Jasentuliyana (1983) *supra* note 9 (p. 237).
[37] See ibid. (pp. 236-238). The Agreement of the Arab Corporation for Space Communications even provides for adjudication in the settlement of disputes by the General Body of the Arab Corporation for Space Telecommunications (Art. 19), i.e., not by a court or arbitral tribunal, but by a body of an international space telecommunication organization.
[38] See Bohlmann (2002) *supra* note 31 (pp. 157-158).
[39] See Böckstiegel (1993b) *supra* note 15 (p. 7).

Pursuant to Article 10.2, all dispute settlement procedures envisaged by the Draft Convention are open not only to states and IGOs but also "to entities other than High Contracting Parties unless the matter is submitted to the International Court of Justice". This refers to private enterprises, above all, for whom the possibility of binding resolution of disputes by arbitration tends to be of particular importance. If they so wish, private entities can even have direct access to an International Tribunal for Space Law. Non-governmental organisations are also allowed to be parties to the dispute settlement procedures of the Draft Convention. Such an opening of proceedings to entities beyond the governmental sector represents a very modern approach in international law to grant access to international legal forums for dispute resolution also to non-state actors.[40]

The Draft Convention has a relatively wide scope of application as well: it applies to all activities in or with effects in outer space, if carried out by states or IGOs parties to the convention or nationals of contracting states or from the territory of such states (Arts. 1.1, 69). Hence even activities conducted on Earth may fall into the scope of the Draft Convention, as long as they have "effects" in outer space. It is easy to imagine that problems of interpretation may emerge.

The ILA Draft Convention, like most international conventions, is based on reciprocity: it only allows a party to benefit from the convention "insofar as it is itself bound" (Art. 1.3). Furthermore, the Draft Convention is a secondary instrument in the sense that it does "not apply to disputes which the parties have agreed or may agree to submit to another procedure of peaceful settlement, if that agreement provides for a procedure entailing binding decisions" (Art. 1.5). Additionally, there is an exclusion clause, according to which any contracting party can either exclude from the applicability of the convention certain kinds of space activities or limit the convention's applicability to specific space activities or areas of space law, or declare that it will not be bound by some sections of the convention (Art. 1.2).

As regards dispute resolution methods, the ILA Draft Convention draws heavily on the 1982 United Nations Convention on the Law of the Sea (UNCLOS) – adapted, of course, to a different scope of application, and constructed in a somewhat simplified manner. It offers a variety of non-binding and binding dispute resolution procedures to which the disputing parties may resort, but eventually provides for compulsory third-party dispute settlement, choosing arbitration as the preferred subsidiary method. However, the UNCLOS and the ILA Draft Convention are not entirely alike. For instance, the ILA Draft Convention includes no provisions comparable to those of the UNCLOS dealing with the International Seabed Authority, the Seabed Disputes Chamber, and Special Arbitration.[41] Furthermore, it gives no

[40] However, this has also been identified as the very reason why the ILA Draft Convention "has been unable to build up a true momentum". Hulsroj, P. (1999) Space Community, Space Law, Law. In *Proceedings of Third ECSL Colloquium on International Organisations and Space Law*, Perugia, 6-7 May 1999, ESA SP-442, 69-75 (p. 71). According to this author, the Draft Convention has "gone, at least, one bridge too far […] in the sense that it encompasses both inter-state and state-domestic entity conflicts and seeks to set up an International Tribunal for Space Law in the modus of the International Tribunal of the Law of the Sea".

[41] See Böckstiegel, Karl-Heinz (1997) Presentation at the ICJ/UNITAR Colloquium to Celebrate the 50th Anniversary of the Court. In Peck, C. and R. S. Lee (eds.): *Increasing the Effectiveness of the International Court of Justice,* Proceedings of the ICJ/UNITAR Colloquium to Celebrate the 50th Anniversary of the Court, Legal Aspects of International Organization, Vol. 29. The Hague, Boston, London: Martinus Nijhoff Publishers, 446-451 (p. 449).

possibility to withdraw from binding dispute settlement even in the politically most sensitive cases, unlike the UNCLOS.[42]

6. Improving resolution of disputes in the space sector

It is common practice among private enterprises in international trade and investment to use arbitration to resolve their differences. It does not seem necessary (or even feasible) to provide for a completely new dispute settlement mechanism for their needs in the space sector. At worst, a new dispute resolution mechanism for the private space industry might even constitute a step backwards because countries worldwide have accepted a multilateral system of enforcement of arbitral awards by ratifying the 1958 New York Convention.[43]

Nevertheless, the rules and procedures of international commercial arbitration could be adjusted to suit the space sector better. It would elucidate the situation if the established arbitral institutions expressly defined space law disputes as a category of claims which they accept for arbitration. This would appear quite feasible. A more profound challenge is that proceedings in some of these institutions may produce less successful awards in space-related conflicts because these institutions usually are relatively unfamiliar with space activities and space law. Rapid and reliable access to a list of arbitrators with special expertise in the space sector could help.[44] There might even be demand for some kind of space-specific arbitration rules.

The ILA Draft Convention constitutes an important step forward in this respect. It proposes the establishment of a list of specifically qualified arbitrators and a detailed set of rules concerning arbitration in space-related conflicts (Section V). The Draft Convention also envisions a list of experts (and another set of procedural rules) to be used in space-related conciliation (Section IV). Smooth conciliation by qualified experts enhances the possibility of settling disputes at an early stage, with no need to resort to more formal procedures like arbitration.

A general feature of arbitration is that, normally, arbitral decisions are not published. Often even the fact that a dispute exists and is being arbitrated is kept secret.[45] Hence arbitration cannot provide precedents or case law for future use in the same way as court rulings can. Sometimes arbitrators are not even required to give the disputing parties themselves a written rationale for their decision. Consequently, at worst, even the parties to a dispute may not understand how they should govern their conduct in future in order to avoid further controversies.[46]

Nevertheless, arbitral awards are in fact published in many areas – usually, however, without the names of the parties. This has been the practice at least in maritime arbitration (shipping),

[42] See UNCLOS Arts. 297-298 concerning disputes over sea boundary limitations, military activities, rights of coastal states with respect to fisheries of the Exclusive Economic Zone, marine scientific research, etc.
[43] See Böckstiegel, Karl-Heinz (1993a) Developing a System of Dispute Settlement Regarding Space Activities. In *Proceedings of the 35th Colloquium on the Law of Outer Space,* IISL, 28 August – 5 September 1992 (Washington, DC), AIAA, 27-35 (p. 34).
[44] See Hill, R. and J. Watkinson (1999) *supra* note 4 (p. 29).
[45] Ravillon (2004) *supra* note 30 (p. 2).
[46] White (1993) *supra* note 22 (p. 189).

institutional arbitration in East-European countries at the time they were under the socialist regime, and some trade-related arbitration. Some professional organizations have even codified the usages evinced by the published arbitral decisions. Furthermore, many arbitral decisions concerning disputes which have arisen out of state contracts or have been awarded by the International Centre for Settlement of Investment Disputes (ICSID) or the ICC have been published, often with commentaries. Consequently, more recent arbitration awards are sometimes explicitly based on earlier ones. Thus arbitral awards can also constitute a significant source of law in practice.[47]

Space law is a young branch of international law, with numerous unsettled questions. Published legal opinions would thus be particularly valuable for its continuity and development.[48] Because court cases in this sector are relatively rare, it is primarily arbitral awards which should provide for well-reasoned – albeit, of course, non-binding – precedents. However, arbitration has also been of limited precedential and norm-generating value in the space sector. This is quite understandable, given that confidentiality is an essential characteristic of arbitration.[49] Another salient reason for the limited usefulness of space-related arbitration awards as precedents is the simple fact that space activities, particularly those of a commercial nature, have attained a considerable volume only recently. Consequently, arbitral practice remains relatively scarce.[50]

Despite the focal role of discretion in arbitration, some kind of procedure for the publication of the legal findings of arbitral proceedings in the space sector would be welcome. It could significantly enhance predictability and transparency in the resolution of space-related controversies. At the same time, protection of the privacy and anonymity of the parties and the confidentiality of the information revealed in the course of arbitration is absolutely essential.[51] Otherwise at least the private sector is likely to abandon arbitration.[52] Even very selective publicity can be viewed as a threat in the space sector, where the number of stakeholders is relatively limited and their cooperation is often intense. Designing a system which allows for sufficient publicity yet preserves adequate privacy can be quite challenging.[53] Another useful improvement could be the publication of innovative dispute

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[47] Fouchard, Philippe (1999) Definition and Sources (Part I). In Fouchard, P., E. Gaillard and B. Goldman: *On International Commercial Arbitration.* The Hague, Boston, London: Kluwer Law International, 5-189 (pp. 188-189).

[48] Böckstiegel (1993a) *supra* note 43 (p. 31).

[49] See Havel, Brian F. (2002) International Instruments in Air, Space and Telecommunications Law: The Need for a Mandatory Supranational Dispute Settlement Mechanism. In The International Bureau of the PCA (ed.): *Arbitration in Air, Space and Telecommunications Law: enforcing regulatory measures,* Papers emanating from the Third PCA International Law Seminar, 23 February 2001, The Permanent Court of Arbitration Peace Palace Papers. The Hague, London, New York: Kluwer Law International, 11-57 (p. 12).

[50] See Böckstiegel (1994) *supra* note 6 (p. 136).

[51] White (1993) *supra* note 22 (p. 189).

[52] See Ravillon, Laurence (2003) Arbitral Disputes in the Space Activities Sector. *International Business Law Journal*, No. 7, 801-829 (pp. 818-819).

[53] See Bruce, Robert R., R. Macmillan, T. St. J. Ellam, H. Intven and T. Miedema (2004) *Dispute Resolution in the Telecommunications Sector: current practices and future directions,* Discussion Paper, ITU, The World Bank. Geneva (p. 17). This obviously applies to states as well. See Romano, Cesare P. R. (2000) *The Peaceful Settlement of International Environmental Disputes: a pragmatic approach,* International Environmental Law and Policy Series, Vol. 56. The Hague, Boston: Kluwer Law International (p. 44).

resolution procedures themselves. Publicity of this type should have far lesser impact on confidentiality and thus be more acceptable.[54]

One more proposal worth consideration is that if a new space law tribunal is established, it should also be able to give advisory opinions. Advisory opinions could provide another way to enhance predictability in the resolution of space-related controversies.[55] In all likelihood, they would also diminish the need to resort to binding resolutions of disputes as some controversies would already be settled in compliance with an advisory opinion. An analogous example from the law of the sea is the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS). It has been entrusted with the task of giving advisory opinions "at the request of the Assembly or the Council [of the International Seabed Authority] on legal questions arising within the scope of their activities" (UNCLOS, Art. 191). Individual states, let alone other stakeholders, do not have the authority to request advisory opinions.

In the space sector, the roles and possibilities of the various stakeholders need to be carefully considered. The type of disputing parties and choices entrusted to them will largely determine the feasibility of different dispute resolution mechanisms. Compared to conflicts taking place solely within the private sector, dispute settlement tends to be far more complex when public international law is concerned.[56] At the level of public international law, state-versus-state disputes are the classical type of controversies – and the ones most suitable for being resolved there.[57] In general, the treatment of disputes among states differs considerably from the resolution of conflicts within the private sector. Traditionally, states have been reluctant to submit to binding mechanisms of dispute settlement, especially in advance of any conflict.[58] Most states view such arrangements as constraints on their sovereignty.[59] Compulsory dispute resolution mechanisms are also out of favour as concerns conflicts between states and international organizations. The particular difficulties in resolving controversies among entities of public international law derive largely from the fact that such conflicts may involve considerable political friction.[60]

The lack of effective dispute resolution mechanisms in public international law is increasingly evident in the space sector. In state-to-state conflicts, there is no prevailing practice of resorting to arbitration, for instance. The use of adjudication is even rarer. As long as no general agreement establishing a binding procedure for the settlement of disputes in space activities exists, it is probable that most states will continue to settle their disputes through diplomatic channels. However, diplomatic conflict resolution may be demanding, especially in particularly sensitive areas of space activity, such as remote sensing and direct broadcasting.[61]

The current trend of increasing relativism of state sovereignty seems to promise some changes in this respect. Arbitration is already common in international business, including the

[54] See Bruce et al. (2004) *supra* note 53 (p. ix).
[55] Report of the 68th Conference of the International Law Association (1998) Taipei, Taiwan (Republic of China), 24-30 May 1998 (p. 248).
[56] See Williams (1997) *supra* note 35 (p. 63).
[57] See von der Dunk (2002) *supra* note 3 (p. 447).
[58] Böckstiegel (1994) *supra* note 6 (p. 137).
[59] See Williams (1997) *supra* note 35 (p. 63).
[60] Report of the 68th Conference of the International Law Association (1998) *supra* note 55 (p. 242).
[61] See Williams (1997) *supra* note 35 (p. 63).

space business, and also in relations that involve state entities. There even exists an arbitral regime, the ICSID, designed specifically for disputes between states and private parties. It seems likely that the enormous interests at stake in the space sector are eventually bound to make states willing to accept an effective (binding) general dispute settlement system.[62] An interesting example from an analogous area, air law, is the system of the International Civil Aviation Organization (ICAO). Pursuant to the Convention on International Civil Aviation, if disputes concerning the interpretation or application of the convention (or its annexes) cannot be settled by negotiation, they are to be resolved through the ICAO Council (Art. 84). The ICAO Council is a permanent body of the organization, composed of 36 contracting states elected every three years by the ICAO Assembly (Art. 50(a)). Decisions of the ICAO Council may be appealed, either to an ad hoc arbitral tribunal or to the ICJ (Arts. 84-86).[63] However, it does not seem probable that states in the space sector would be ready to accept a mechanism which leaves them with so little discretion and freedom of choice.

The ILA Draft Convention addresses the concerns of states at least to some extent. It does not impose on them a single method of binding dispute resolution but gives a range of options to choose from. Considering the variety of space-related disputes and the different political, legal and other circumstances which may be relevant in such conflicts, it seems quite improbable that one method of settling controversies could be equally suitable in all cases.[64] In particular, it does not appear realistic to expect most states to accept any international court as the exclusively competent organ. Accordingly, the ILA Draft Convention puts forward arbitration as a strong candidate for the preferred method of resolving space-related controversies, but other options are also available. The experience of the UNCLOS presents a forceful argument in favour of a solution of this type: a combination of adjudication by a court (even by an international tribunal for space activities) and arbitration (ad hoc or administered).

An interesting example of administered arbitration in the space sector is an International Space and Aviation Arbitration Court set up by the French Air and Space Law Society.[65] The rules of the court call for a binding award which cannot be appealed. The award is strictly confidential, as is the handling of the dispute. The court has to render its award within one year of the commencement of arbitration.[66] An interim arbitration procedure is also possible. Furthermore, the rules provide for arrangements for appointing experts listed according to their areas of specialization and recommended by the court. The fees of arbitrators and experts are determined on the basis of a lump sum per day when a hearing or meeting is held.

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[62] Ibid. (p. 65).

[63] The judicial machinery of the ICAO has been invoked very seldom. For a more detailed assessment, see, e.g., Maniatis, Dimitri (1995) Conflict in the Skies: The Settlement of International Aviation Disputes: From the Law of the Jungle to the Rule of Law. *Annals of Air and Space Law*, McGill, Vol. XX, 167-233 (pp. 202-206).

[64] Böckstiegel, Karl-Heinz (1980) Which method of dispute settlement in space law can be considered as being the most effective and which has the greatest chances of realization? In Böckstiegel K.-H. (ed.): *Settlement of Space Law Disputes: the present state of the law and perspectives of further development,* Proceedings of an International Colloquium, Munich, 13-14 September 1979, SLW, Band 1. Köln, Berlin, Bonn, München: Heymann, 151-158 (p. 152).

[65] On the creation of the International Space and Aviation Arbitration Court of the French Air and Space Law Society, see Bourely, Michel G. (1994) Creating an International Space and Aviation Arbitration Court. In *Proceedings of the 36th Colloquium on the Law of Outer Space*, IISL, 16-22 October 1993 (Graz), AIAA, 144-149.

[66] Bostwick (1995) *supra* note 29 (pp. 33-34).

This should make the costs much lower than the fees of the ICC, for instance – and even lower than in lawsuits in many domestic courts.[67] Apparently, however, the services of the court have not been used. This may indicate that an instance of this kind cannot meet the demands of the modern space sector. However, given the overall sluggish pace of the development of space law and its dispute resolution mechanisms, such a conclusion may be premature.

In any case, arbitration cannot be the only alternative in space-related dispute resolution. Pursuant to the ILA Draft Convention, parties to a dispute should be allowed to choose between adjudication and arbitration but with an obligation to accept one of them. A similar system is provided by the UNCLOS, which includes a general submission to binding third-party settlement of disputes but provides for high flexibility in letting the disputing parties select the method or body of their preference. A mechanism of this type could have a realistic chance of getting approved by a majority of states in the space sector as well.

Another way to make states more receptive to binding dispute settlement could be to give them the right to withdraw their submission to binding resolution of disputes. Of course, if applied unconditionally, such a right could easily water down the conflict resolution system: if allowed to withdraw their submission at any time and with the withdrawal taking effect at once, states could, in effect, completely avoid binding dispute resolution. Hence withdrawal should be possible only as concerns future conflicts, and in any case not after a dispute has already been submitted to a dispute settlement body. A further requirement could be that withdrawal of submission to binding dispute resolution takes effect only after a certain period of time.[68]

It is likely to take a while before any new international regulation in the space sector enters into force. In the meantime, possibilities for strengthening the role of the International Court of Justice could be considered.[69] One suggestion has been to establish a special chamber of the ICJ for space law disputes, similar to the chamber established in 1993 for environmental matters.[70] Utilization of chambers of the ICJ to resolve space law controversies is no new idea.[71] Apparently, the idea enjoys relatively wide support among space lawyers.[72] The

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[67] Diederiks-Verschoor, I. H. Philepina (1998) The Settlements of Disputes in Space: new developments. *Journal of Space Law*, Vol. 26, No. 1, 41-49 (pp. 42-43); Bostwick (1995) *supra* note 29 (pp. 33-34).

[68] See Böckstiegel, Karl-Heinz (1978) Arbitration and Adjudication Regarding Activities in Outer Space. *Journal of Space Law,* Vol. 6, No. 2, 3-18 (p. 18).

[69] For a more detailed assessment of such possibilities (and problems related to them), see, e.g., Böckstiegel (1997) *supra* note 41, and Vereshchetin, Vladlen (2001) The International Court of Justice as a Potential Forum for the Resolution of Space Law Disputes, in Benkö, M. and W. Kröll (eds.): *Luft- und Weltraumrecht im 21. Jahrhundert / Air and Space Law in the 21st Century*, Liber Amicorum Karl-Heinz Böckstiegel. Köln, Berlin, Bonn, München: Carl Heymanns Verlag KG, 476-483. Interestingly, when the Outer Space Treaty was being drafted in the 1960s, the US proposed a clause pursuant to which disputes arising from the interpretation or application of the OST could be referred to the ICJ. Stojak (1997) *supra* note 5 (p. 452).

[70] The ICJ established a special seven-member Chamber of the Court for Environmental Matters in 1993. For a more detailed assessment of the chamber, see Romano (2000) *supra* note 53 (pp. 122-125).

[71] See, e.g., Cocca (1980) *supra* note 14 (p. 140). Of more recent authors, see, e.g., Williams (1997) *supra* note 35 (p. 64).

[72] See Report of the 68th Conference of the International Law Association (1998) *supra* note 55 (p. 247).

formation of chambers of the ICJ is possible under Article 26 of its Statute, either "for dealing with particular categories of cases" (like environmental matters, Art. 26.1)[73] or "for dealing with a particular case" (Art. 26.2). Hence a space disputes chamber could, in principle, be formed either on a permanent basis as a standing chamber, or as an ad hoc chamber to hear a particular case. Pursuant to the Statute of the ICJ, cases are "heard and determined by the chambers … if the parties so request" (Art. 26.3). The option of referring a case to the full court thus always remains.

An even more extensive chamber structure has been proposed for the possible global space law tribunal. It has been envisioned as having a variety of chambers which are tailored to try different kinds of disputes.[74] There could, for instance, be a chamber for disputes concerning contracts in the space sector, another one for space-related insurance disputes, and one for conflicts caused by space debris. However, it may not be easy to determine what kinds of special chambers would be needed. In order to enable the space law tribunal to function efficiently, the establishment and operation of its chambers should be kept as simple as possible. If no suitable chamber exists for a given dispute, an ad hoc chamber could hear the case. On the other hand, the possibility of resorting to the full court should remain. The tribunal could itself determine whether a case is to be tried by a chamber or by the full court, or this could be up to the disputing parties to decide. If well-designed, such a multi-chamber court could provide an institutionalized way to introduce well-focused special expertise in the resolution of conflicts in the space sector.

Some tribunals allow disputing parties to select some or all of the judges of a chamber. In practice, this comes close to arbitration.[75] For instance, pursuant to Article 26.2 of the Statute of the ICJ, "[t]he number of judges to constitute [an ad hoc] chamber shall be determined by the Court *with the approval of the parties*" (emphasis added). Despite the temperate language of the provision ("with the approval"), it in fact permits the views of the disputing parties concerning the composition of the chamber to be decisive. Apparently, this has increased the attractiveness of the ad hoc chambers of the ICJ.[76]

However, a system involving numerous and various kinds of chambers, combined with wide discretion of the disputing parties in selecting the body to hear a case, sounds overly complicated. The UNCLOS can again work as an example. Within the International Tribunal for the Law of the Sea, there is a special Seabed Disputes Chamber (Art. 186). Additionally, Annex VI of the UNCLOS provides for a possibility of establishing ad hoc chambers (called "special chambers") of the ITLOS for "dealing with particular categories of disputes" (Art. 15). Disputes can be heard by these chambers at the request of the disputing parties (Annex VI, Art. 15.4). Moreover, the Seabed Disputes Chamber can form "sub-chambers" (ad hoc chambers) of its own (Annex VI, Art. 36).[77] Hence, in addition to the chambers of the main

[73] The examples given in the article for the application of this paragraph are "labour cases and cases relating to transit and communications". The Statute of the ICJ has "inherited" the reference to these particular types of disputes from its "predecessor", the Statute of the Permanent Court of International Justice (Arts. 26-27). Apparently, such cases appeared as the most salient international disputes in the early 20th century, when the Statute of the Permanent Court of International Justice was adopted. Today, however, environmental disputes, for instance, have greater importance. Romano (2000) *supra* note 53 (pp. 122-123.)

[74] Cocca (1980) *supra* note 14 (p. 147).

[75] See Böckstiegel (1993b) *supra* note 15 (p. 5).

[76] See Romano (2000) *supra* note 53 (p. 124).

[77] For a more detailed treatment, see, e.g., Collier and Lowe (1999) *supra* note 11 (pp. 84-95).

tribunal (ITLOS), there can even be "third-level" chambers, namely chambers within a chamber (the Seabed Disputes Chamber) of the ITLOS. Already during the negotiations leading to the adoption of the UNCLOS, the Seabed Disputes Chamber did not prove very popular among the industrialized states. Many of them called for dispute settlement by arbitration instead.[78] The entire ITLOS was the compromise result of protracted negotiations, and it has not been put to full use since its creation. States seldom resort to the tribunal, and the few cases which have been submitted to it are relatively insignificant (a total of sixteen cases, at the time of this writing, of which as many as nine have concerned the prompt release of vessels).

The environmental chamber of the ICJ has proven even less popular: no state has yet opted to have a dispute heard by it. Apparently, the reasons for this are manifold. They include the general reluctance of states to settle their international disputes (particularly those concerning environmental matters) by adjudicative means. Moreover, unlike in the case of the ad hoc chambers of the ICJ, the disputing parties are not allowed to determine the composition of the environmental chamber. Also the procedure of the environmental chamber is very similar to that of the full court. States may not even be able to agree very easily that their dispute is an environmental one. For instance, in the *Gabcikovo-Nagymaros* case, Hungary repeatedly appealed to principles of international environmental law, whereas Slovakia (and the ICJ, in its decision) focused rather on the law of treaties.[79]

Indeed, many international disputes involve various aspects of international law. It is not always easy to say which of them are decisive. Such diversity – even unpredictability – in how disputes are addressed may prompt states to turn to the full court instead of a specialized chamber.[80] Even if a special space disputes chamber of the ICJ were established, there is no particular reason to expect a considerable number of disputes (if any) from the space sector to be presented to the ICJ. Thus there is hardly a pressing need for such a chamber. As regards the proposals concerning an entire international space law tribunal, they appear unfeasible partly for the same reasons as does a space law chamber of the ICJ.

An interesting comparison in this respect can be made to proposals concerning the establishment of an international tribunal specialized in environmental disputes. Arguments presented in favour of an international environmental court include the abundance of pressing environmental problems today and the need for a body of experts in international environmental law to consider such problems, the need for better access to environmental justice for individuals and groups at the international level, and the need for dispute settlement procedures where international organizations can also be parties.[81] In a similar manner, there are pressing specialized legal problems in the space sector calling for experts to solve them. There certainly is an increasing need for space-related dispute resolution mechanisms which recognize persons (natural and juridical), groups and international organizations on an equal footing with states.

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[78] Oxman, Bernhard H. (1983) Some Reflections on Relying on Customary International Law and Ad Hoc Agreements Among Limited Participants. In Dupuy, R.-J. (ed.): *The Settlement of Disputes on the New Natural Resources,* Workshop, The Hague, 8-10 November 1982. The Hague, Boston, London: Martinus Nijhoff Publishers, 85-101 (p. 78).

[79] Gabcikovo-Nagymaros Project (Hungary v. Slovakia). 25 September 1997. 1997 ICJ Reports 7.

[80] Vereshchetin (2001) *supra* note 69 (p. 481).

[81] Hey, Ellen (2000) *Reflections on an International Environmental Court.* Kluwer Law International (p. 3).

Furthermore, the arguments presented against the establishment of an international environmental court sound familiar. For instance, some fear that the proliferation of international tribunals in general contributes to the fragmentation of international law. Furthermore, it has been argued that the existing dispute resolution mechanisms are, or at least can be, equipped well enough to handle environmental cases as well. One more argument is that conflicts concerning international environmental law involve other aspects of international law as well, and therefore a specialized tribunal would not be needed, or even useful.[82]

Obviously, if fragmentation of international law is a problem, a space law tribunal would contribute to it just like any other specialized international court. One may also well argue that existing dispute resolution mechanisms can at least be made better suited to space activities. Moreover, most space law disputes can be defined in terms of other areas of international law as well, such as trade law or the law of treaties, for instance. It could be difficult to assure that a tribunal specialized in the law of outer space would have sufficient expertise to deal with the other legal questions which may be relevant in space-related disputes.[83] Hence, instead of establishing new specialized international tribunals, it might be more feasible to try to guarantee that sufficient expertise in the different areas of international law is available on the benches of existing dispute settlement forums.[84]

Improvements in adjudication procedures of the ICJ and other tribunals could help with some of the current problems related to dispute resolution in the space sector. However, this approach appears to be far more demanding than that of establishing better arbitration-based mechanisms. Besides, the process of many international courts – the ICJ in particular – remains insensitive to the needs of other entities than states. Considering the focal role of international organizations and the private sector in space activities, the ICJ risks being excluded from much of the litigation in this area. Furthermore, regardless of any reshaping of adjudication procedures, a salient problem related to all court judgments internationally would still remain: even if states were receptive to adjudication as a dispute resolution mechanism, compliance with the rulings of a court might nevertheless prove unacceptable to them.[85] International enforcement of arbitral awards might also be problematic, but to a significantly lesser degree.

Another proposal which has been put forward is that the space sector could resort to the other facility whose home is in the Peace Palace of the Hague, the Permanent Court of Arbitration, to settle its disputes.[86] Despite its name, the PCA is in fact not a court at all, but a facility with a list of arbitrators available for resolving disputes. The only truly permanent feature of the PCA is its International Bureau, headed by a Secretary-General. The system of the PCA grants the disputing parties wide discretion as to the selection of arbitrators, the procedural rules to be applied, and the use of the services of the PCA in general.

The PCA might be more suitable than the ICJ for resolving many space-related controversies, given that acceptance of the private sector and IGOs is of major importance today.

[82] Ibid.
[83] Of course, the same problem also concerns non-space tribunals when space-related aspects are involved in a dispute heard by them.
[84] See also Hey (2000) *supra* note 81 (p. 9).
[85] On international enforcement in more detail, see, e.g., Collier and Lowe (1999) *supra* note 11 (pp. 263-273).
[86] The Peace Palace also serves as the seat of the International Court of Justice.

Acceptance could be gained by giving the private sector and IGOs equal access to dispute resolution mechanisms (with the exception of the possibility to avail themselves of the ICJ). The PCA has granted limited access to IGOs and even private parties. It adopted a new series of dispute protocols (the Permanent Court of Arbitration Optional Rules) between 1992 and 1996. Pursuant to them it now offers arbitration also in disputes in which only one party is a state,[87] in which one party is a state or an international organization and the other is an international organization,[88] and in which one party is an international organization and the other is a private entity.[89] Hence, the PCA allows for both public and mixed public/private arbitration. Consequently, it has been increasingly involved in international commercial arbitration between states, IGOs and private entities.

However, as concerns the most common type of disputes arbitrated – purely private disputes between two private parties – even the PCA continues to play a very limited role: in international commercial arbitration where neither party is a state or state entity, the role of the PCA is confined to offering some assistance at most. Above all, it often operates as an agency to select arbitrators for controversies of this type.[90] The UNCITRAL Arbitration Rules present another interesting formula in this respect. They do not entrust the PCA with the task of directly appointing arbitrators. Instead, if the disputing parties cannot agree on an arbitrator(s), either party can request the Secretary-General of the PCA to designate an "appointing authority". The appointing authority then selects the arbitrator(s) (Arts. 6-7).

The PCA can be used in the resolution of a dispute when its rules so allow and the disputing parties agree to it. Additionally, jurisdiction of the PCA can be established by bilateral or multilateral arbitration agreements for particular types of disputes which may arise in the future. It has been suggested that the space sector could adopt agreements accepting binding arbitration by the PCA, even for all disputes in this area.[91] An interesting precedent from a partly analogous field of activity is provided by the European Organization for the Safety of Air Navigation (EUROCONTROL). The EUROCONTROL Convention Relating to Cooperation for the Safety of Air Navigation refers to the Optional Rules of the Permanent Court of Arbitration for dispute settlement.[92] Moreover, there is a EUROCONTROL Draft Arbitration Policy which complements the PCA Optional Rules. In addition to referring disputes to arbitration under the auspices of the PCA, it posits a newly-conceived instrument, a preliminary advisory opinion, as a tool for enforcing regulatory measures (EUROCONTROL Draft Arbitration Policy, Art. 5).

In addition to offering a dispute settlement mechanism which can, to some extent, accommodate actors other than state-actors, the framework of the PCA is able to reconcile considerable flexibility with certainty. Interestingly, arbitration clauses that refer to the PCA can be found in many conventions dealing with environmental protection, such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Art. XVIII) and the Convention on Migratory Species of Wild Animals (Art. XIII). Furthermore, the PCA has two sets of optional rules for environmental disputes.[93] Pursuant to the PCA,

[87] PCA Optional Rules for Arbitrating Disputes Between Two Parties of which Only One is a State.
[88] PCA Optional Rules for Arbitration Involving International Organizations and States.
[89] PCA Optional Rules for Arbitration Between International Organizations and Private Parties.
[90] See Havel (2002) *supra* note 49 (pp. 46-48).
[91] See Hulsroj (1999) *supra* note 40 (pp. 71-72).
[92] The PCA applies various sets of optional arbitration rules, based on the 1976 UNCITRAL Arbitration Rules.
[93] Optional Rules for Arbitration of Disputes Relating to Natural Resources and/or the Environment

"[t]hese [r]ules provide the most comprehensive set of environmentally tailored dispute resolution procedural rules presently available".[94] The PCA also has Guidelines for Negotiating and Drafting Dispute Settlement Clauses for International Environmental Agreements to assist the negotiators of environmental treaties.[95] In addition, there is a specialized PCA panel of arbitrators which is, in practice, a list of environmental experts worldwide. There is still another panel of "scientific and technical experts who may be appointed as expert witnesses".[96] The parties to a dispute can use the PCA panels when selecting arbitrators, conciliators and expert witnesses. However, they are also free to choose persons from outside the lists (panels) of the PCA.

Similar sector-specific means could provide for increasingly efficient settlement of space-related controversies. For instance, "PCA optional rules for arbitration of space-related disputes" and a list of experts specialized in this area could meet many of the demands of the modern space sector. It has been proposed that the settlement of international controversies before permanent arbitral tribunals should even be made mandatory in the space sector. If no supranational forum with special expertise in space issues is established, the PCA could be a strong candidate to handle these disputes. This would seem particularly feasible if the PCA established specialized panel(s) of experts available for space-related conflicts. Given the salient role of the private sector in space activities today, however, other stakeholders than states and IGOs should be afforded full and equal participation in the dispute settlement system. Obviously, the PCA thus cannot be used to resolve all disputes in the space sector, but it could provide a feasible framework for the settlement of many conflicts.[97]

7. Conclusion

There is an obvious need for a more effective mechanism of dispute resolution in the modern space sector. A precondition for effectiveness is that the mechanism is acceptable to a majority of the relevant entities. Some disputes in this area are already covered by relatively functional settlement systems. However, there is no general system which would apply to all space-related disputes and all types of stakeholders. The existence of such a mechanism could provide a strong incentive for finding solutions to conflicts without even having to resort to the dispute resolution system.

In practice, the establishment of totally new means for dispute settlement in the space sector does not appear likely, or even feasible. Private enterprises have proven relatively efficient in handling their mutual controversies – typically by resorting to arbitration. Problems arise when the public sector is involved. Experiences from international arbitration seem promising in this respect as well. Agreements in space telecommunications, for instance, already commonly resort to compulsory arbitration. In a similar vein, the 1975 European Space Agency Convention provides recourse to arbitration both as concerns disputes between the

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adopted in 2001 and Optional Rules for Conciliation of Disputes Relating to Natural Resources and/or the Environment adopted in 2002.

[94] <Http://www.pca-cpa.org/showpage.asp?pag_id=1058> [21.2.2010].

[95] Sands, Philippe and Ruth MacKenzie (2000) *PCA Guidelines for Negotiating and Drafting Dispute Settlement Clauses for International Environmental Agreements*, 1998, updated 2000, <http://www.pca-cpa.org/upload/files/envannex1.pdf> [21.2.2010].

[96] These panels have been established pursuant to the Optional Rules for Arbitration of Disputes Relating to Natural Resources and the Environment (Art. 8.3).

[97] For a detailed treatment of the issue, see Havel (2002) *supra* note 49.

ESA and its space industry suppliers, as well as those between the ESA and its member states. Interestingly, even the Claims Commission mechanism of the UN Liability Convention resembles the procedures of international arbitration. Considering, furthermore, experiences from the law of the sea, it seems that arbitration combined with other dispute resolution methods to constitute a system which offers a certain freedom of choice but eventually results in a binding settlement of conflicts could be a feasible solution. Such a mechanism has been proposed by the ILA Draft Convention.

Furthermore, disputes in the space sector can involve many other stakeholders besides the immediate disputing parties. The interests of all humanity, including future generations, may even be at stake. Despite its capability to accommodate different kinds of stakeholders, arbitration remains in essence a bilateral procedure. In a way it is a bilateral mechanism even more distinctively than court proceedings, because arbitration agreements typically do not allow even third states whose interests may be directly involved to intervene.

Obviously, most dispute resolution systems are not very good at dealing with the interests of other entities than the immediate parties to a dispute. Where some kind of general interests of humankind are concerned, dispute settlement mechanisms face even more considerable challenges. Accordingly, conflicts regarding the use and condition of outer space and its resources, for instance, seem to call for something other than the traditional bilateral and adversarial means offered by most international legal instruments.

Some multilateral environmental treaties have expanded the opportunities available within their dispute resolution mechanisms in this respect. Significantly, they have granted third states that have a legal interest in a particular dispute the right to intervene in an arbitral process. For instance, pursuant to the appendix regulating arbitration of the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention):

> […] any Party to this Convention having an interest of a legal nature in the subject-matter of the dispute, and which may be affected by a decision in the case, may intervene in the proceedings with the consent of the tribunal (Appendix VII, Art. 15).

Similar examples include the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Annex IV, Art. 15) and the 1992 Convention on the Transboundary Effects of Industrial Accidents (Annex XIII, Art. 15), both of which have borrowed the wording of the relevant provision directly from the Espoo Convention. Earlier agreements with provisions to the same effect include the 1973 MARPOL Convention.[98]

Such right of intervention reflects an increasing awareness of the unity of the global environment.[99] Considering the inherent unity of the space environment and the interrelatedness of the international spacefaring community, a similar opportunity to intervene for the purpose of protecting the legal interests of a third state could be appropriate at least in some disputes in the space sector. Moreover, it could facilitate more comprehensive resolution of disputes. Any intervening party introduces its own version of the controversy, thus in all likelihood allowing the tribunal deciding the case to get a less polarized view of the situation than what is provided by the involvement of only the two adversarial parties. An interesting precedent in the space sector is the arbitration tribunal

[98] International Convention for the Prevention of Pollution from Ships, Protocol II, Art. VII. For more examples, see Romano (2000) *supra* note 53 (pp. 107-108).
[99] Ibid. (p. 43).

established pursuant to the ESA Convention: in addition to the parties of a dispute, other member states of the ESA can intervene in the proceedings if the tribunal so agrees (Art. XVII.4).

The law of the sea provides an interesting example of extending even international adjudication beyond states. The International Tribunal for the Law of the Sea permits non-state entities (including state enterprises, natural or juridical persons, and the international organization International Seabed Authority) to take part in its proceedings in limited, well-specified instances concerning disputes relating to activities in the international deep seabed (UNCLOS, Art. 187). A similar system has been suggested for the space sector by the ILA Draft Convention and its space law tribunal. The jurisdiction of the international space law tribunal in respect of private entities would be even more extensive than that of the ITLOS. The establishment of such a new international judicial body seems, however, rather unlikely.

On balance, the most suitable candidate for the resolution of space-related disputes today appears to be arbitration. It seems like the most promising and feasible method of dispute settlement for the needs of the modern space sector. Even arbitration has its limitations, however. For instance, inter-state arbitration is hardly acceptable for the disputing parties in conflicts which involve highly political, as well as military, aspects.[100] Such aspects are by no means unfamiliar in the space sector. Moreover, even where international arbitration is accepted in principle, diversity in the cultural and legal backgrounds of states and other stakeholders may contribute to abuse and manipulation of the procedure.[101]

In the end, the resolution of a conflict depends on the will of the disputing parties to put a stop to their dispute. The most elaborate treaty provisions establishing a comprehensive dispute resolution system are of little use if the parties are not willing to live by those rules. Apparently, a general will to put to full use even the existing means of dispute settlement does not exist in the international space sector at the moment. A yet more serious problem is, however, that the dispute resolution mechanisms available do not suit the needs of the modern space sector in an optimal way. Of course, this can partly explain also the reluctance to resort to these mechanisms in the first place.

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[101] See ibid. (pp. 306-307).

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