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LEGAL ASPECTS OF DISPUTE RESOLUTION MECHANISMS

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SPACE FOR DISPUTE SETTLEMENT MECHANISMS – DISPUTE RESOLUTION MECHANISMS FOR SPACE? A few legal considerations

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1. Introduction

The subject of dispute settlement is at the heart of every legal system or subsystem, whether national or international, and in principle it should not be any different for space law either. Indeed, amongst space law experts often attention has been paid to this issue, if indeed usually confined to such experts, like in the context of the International Law Association where a draft convention for the settlements of space law disputes was developed.[1]

Part of this no doubt has to do with the general feeling that even after forty years 'space law' is still a new and somewhat embryonic legal system. The focus was to be in first instance on *establishing* some coherent set of legal rights and obligations and making them *work*, and only then on dealing with potential disputes relating to their *adherence and implementation*.

Moreover, as long as the space arena was *de facto* only open to a small number of players, all moreover of the same public, even sovereign nature, the illusion could be upheld that all disputes would easily be solved in a pre-judicial phase. Negotiations and diplomatic discussions should do most of the job, as if a dispute were a matter between two highly civilised gentlemen members of the same exclusive club. The space adventure as such was a common project for all mankind; only in specific contexts it was sometimes considered desirable to include specific dispute settlement mechanisms.

Also, however, international space law so far mainly developed from general public international law, where already a number of various dispute settlement mechanisms were available world-wide, some of them for a rather long time and few of them principally excluding legal disputes relating to space activities. Why create something new and special, when these mechanisms were also available? Similarly – to the extent any attention in this context was paid to national laws – national jurisdictions offered well-weathered dispute settlement systems available for space-related disputes.

Indeed it remains a healthy point of departure not to try to reinvent any wheels where the existing ones may do the job just as well. The question then becomes: is there still space for (additional) specific dispute settlement mechanisms here, more particularly for dispute settlement mechanisms

[1]. Cf. the discussion of the Final Draft of the Revised Convention on the Settlement of Disputes Related to Space Activities, as amended in Report of the Sixty-Eighth Conference of the ILA, Taipei, 1998, 239 ff., text at 249 ff.

dedicated to outer space and space activities?

2. The issue of dispute settlement in space law

The general picture sketched above has of course undergone considerable change over the last years, perhaps most notably when it comes to the constituency of players. Following almost world-wide trends of liberalisation and privatisation as well as globalisation, private entities and intergovernmental organisations have increasingly become key players also within the field of space activities. Spurred by potential or actual commercial benefits, moreover, the number of states becoming involved and interested increased rapidly – and some of them started to not behave very much like gentlemen anymore.

As a consequence, also, a relevant definition of the term 'space law' could no longer be confined to the few space-dedicated international treaties,[2] resolutions[3] and intergovernmental organisations[4]. National legal issues

[2]. Notably this concerns the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereafter Outer Space Treaty), London/Moscow/Washington, adopted 19 December 1966, opened for signature 27 January 1967, entered into force 10 October 1967; 6 ILM 386 (1967); 18 UST 2410; TIAS 6347; 610 UNTS 205; the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (hereafter Rescue Agreement), London/Moscow/Washington, adopted 19 December 1967, opened for signature 22 April 1968, entered into force 3 December 1968; 19 UST 7570; TIAS 6599; 672 UNTS 119; the Convention on International Liability for Damage Caused by Space Objects (hereafter Liability Convention), London/Moscow/Washington, adopted 29 November 1971, opened for signature 29 March 1972, entered into force 1 September 1972; 10 ILM 965 (1971); 24 UST 2389; TIAS 7762; 961 UNTS 187; the Convention on Registration of Objects Launched into Outer Space (hereafter Registration Convention), New York, adopted 12 November 1974, opened for signature 14 January 1975, entered into force 15 September 1976; 14 ILM 43 (1975); 28 UST 695; TIAS 8480; 1023 UNTS 15; and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement), New York, adopted 5 December 1979, opened for signature 18 December 1979, entered into force 11 July 1984; 18 ILM 1434 (1979); 1363 UNTS 3.

[3]. Notably this concerns the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, UNGA Res. 1962(XVIII), of 13 December 1963; UN Doc. A/AC.105/572/Rev.1, at 37; the Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, UNGA Res. 37/92, of 10 December 1982; UN Doc. A/AC.105/572/Rev.1, at 39; the Principles Relating to Remote Sensing of the Earth from Outer Space, UNGA Res. 41/65, of 3 December 1986; UN Doc. A/AC.105/572/Rev.1, at 43; the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, UNGA Res. 47/68, of 14 December 1992; UN Doc. A/AC.105/572/Rev.1, at 47; and the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of all States, Taking into Particular Account the Needs of Developing Countries, UNGA Res. 51/122, of 13 December 1996; XXII-I Annals of Air and Space Law (1997), at 556; 46 Zeitschrift für Luft- und Weltraumrecht (1997), at 236.

[4]. This concerns for example the (at least until recently) intergovernmental organisations INTELSAT (cf. Agreement Relating to the International Telecommunications Satellite Organization (INTELSAT), Washington, done 20 August 1971, entered into force 12 February 1973; 23 UST 3813; TIAS 7532; 10 ILM 909 (1971), and Operating Agreement Relating to the International Telecommunications Satellite Organization (INTELSAT), Washington, done 20 August 1971, entered into force 12 February 1973; 23 UST 4091; TIAS 7532; 10 ILM 946 (1971)); INMARSAT/IMSO (cf. Convention on the International Maritime Satellite Organization (INMARSAT), London, done 3 September 1976, entered into force 16 July 1979; 31 UST 1; TIAS 9605; 15 ILM 1051 (1976), and Operating Agreement on the

were being introduced into the equation[5] as much as various issues of non-space specific legal regimes – telecommunications law, international trade law, intellectual property rights law, contract and tort law, financial securities-related law, even European Community law. Most of such legal regimes had recourse to a dispute settlement mechanism, which of course as such was not very much tuned to space issues, but might nevertheless be called upon in case of conflicts related to space activities.

Thus, the rising concrete importance of the space dispute settlement issue, and its therefore timely choice as a theme for the current symposium, may after all signal that space law is becoming of mature. This may perhaps be to the detriment of the general idea of space activities representing a common mission for mankind, but most certainly it is to the liking of the lawyers.

Indeed, by now a rather extensive number of dispute settlement mechanisms has passed scrutiny at some place or other, sometimes with, sometimes without explicit reference to or focus on their application in the context of space law. As to international space law, for example, it has to be remembered that it is generally acknowledged to be a branch of general international law, any dispute settlement mechanism available in the latter area thus warranting some attention.

Within the current paper it is not possible to make a comprehensive survey of all of them. Other experts may be more intimately aware of many of the theoretical as well as practical benefits, obstacles and parameters arising in the case of a particular dispute settlement mechanism. Therefore, this paper mainly tries to provide a summary methodology for analysing the issue, rather than a comprehensive survey. In doing so, it builds upon the approach of Dr. Huang Huikang, Legal Advisor at the Ministry of Foreign Affairs with the People's Republic of China, when he recently undertook an effort in this direction.[6]

3. The parties to a dispute

As Dr. Huikang pointed out, dispute settlement in the first place is about parties. Basically, they can be of three different types. Sovereign states constitute the first category from a historical as well as a legal point of view. In spite of the increasing role of

International Maritime Satellite Organization (INMARSAT), London, done 3 September 1976, entered into force 16 July 1979; 31 UST 1; TIAS 9605; 15 ILM 1051 (1976), plus later amendments); and EUTELSAT (cf. Convention Establishing the European Telecommunications Satellite Organization (EUTELSAT), Paris, done 15 July 1982, entered into force 1 September 1985; Cmnd. 9069; Space Law - Basic Legal Documents, C.II.1, and Operating Agreement Relating to the European Telecommunications Satellite Organization (EUTELSAT), Paris, done 15 July 1982, entered into force 1 September 1985; Cmnd. 9154; Space Law - Basic Legal Documents, C.II.2). Also, the case of the European Space Agency (ESA) may be mentioned here; cf. Convention for the Establishment of a European Space Agency, Paris, done 30 May 1975, entered into force 30 October 1980; 14 ILM 864 (1975).

[5]. For example, as far as specific, space-dedicated national laws including licensing systems for private space activities are concerned, currently 8 states have established such laws (the United States, Norway, Sweden, the United Kingdom, the Russian Federation, South Africa, the Ukraine and Australia), and several more are in the process of developing one.

[6]. Dr. Huang Huikang presented his remarks at the Space Law Conference 2001, held in Singapore, 11-13 March 2001, organised by the International Institute of Space Law and the Society of International Law of Singapore.

other players in the international arena (including space), and in spite of growing legal recognition, even personality, of such other players, states still provide the lynchpin of the system of public international law.

This certainly applies to space also, states still forming the dominant set of players in terms of space activities. Consequently, international space law continues to be oriented very much towards states as legally relevant entities. They are the prime makers of space law – through the creation of and adherence to treaties and customary law – as well as breakers thereof: most rights and obligations found under the space treaties, for example, are phrased as rights and obligations of states.

Therefore, states also provide the natural *trait-d'union* between the rules established at the international, even global level, and other natural or legal persons to the extent that space law is or should be relevant for the latter. States are, with the notorious case of the European Community as perhaps the sole partial exception so far, the only legal entities commanding the full range of legal powers related to jurisdiction: jurisdiction to legislate and enforce, but also to adjudicate – *a propos* dispute settlement! – and the sovereignty to possess territory and provide nationality, *inter alia* for the purpose of exercising jurisdiction.

Next to states, historically speaking the second type of player concerns that of the intergovernmental organisation. Still public by nature, since comprised of a number of (member) states, they are obviously not states themselves. Certainly in their original incarnation they functioned as vehicles for states to achieve certain goals better realised jointly than individually. This applied both to the intergovernmental organisations essentially established for trying to provide some form of (quasi-)legal regulation and hence some measure of legal certainty – regulatory organisations pooling some of the regulatory competencies of the participating states – and to those established to undertake joint operational activities.

The latter category of operational organisations, was perhaps a unique feature of outer space activities, representing proof of the extremely risky and costly character thereof. There is probably no comparable international field where states pooled their material resources and technological know-how to such a great extent. The former category, in view of their regulatory aims, in a sense in themselves presented a mechanism for *preventing* disputes, and if not fully successful in that respect, often also for *solving* them.

This, in the end, gives intergovernmental organisations also their important place in the space arena, which in turn translates into an important place in the relevant legal field. Often these organisations took the lead in developing new types of space activities viz. applications and, consequently, often new law.[7] Furthermore, their very character as mechanisms for balancing the various interests of the member states meant that they should be provided with solid legal instruments to exercise such a function, such as competencies to interfere or decide in conflict situations. Such legal instruments, for reasons indicated, usually included dispute prevention or settlement mechanisms.

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[7]. The Third ECSL Colloquium held in Perugia, in May 1999, extensively dealt with the role international organisations played in the further development of space law. See International Organisations and Space Law, Proceedings of the Third ECSL Colloquium, 1999, ESA Publ. SP-442.

Most importantly, such developments translated into the development of a separate international legal personality, which is then also of importance for the dispute settlement issue. Intergovernmental organisations are now widely recognised as possessing such international legal personality, even if not comparable to that of states, since not at all following automatically from their mere existence and principally confined to their field of functioning as laid out in their constitutive documents. Nevertheless, ever since the famous *Reparation for Injuries case*[8] it is widely recognised that such legal personality exists under international law and provides intergovernmental organisations with the principled possibility to become a separate party to a dispute under international law.

Specifically with regard to international space law, this was also reflected in various ways for intergovernmental organisations to obtain a sort of secondary status under the space treaties. In the case of Rescue Agreement, Liability Convention and Registration Convention, for example, the opportunity was offered for intergovernmental organisations fulfilling certain further conditions to become parties to the respective treaty regimes for all practical purposes.[9] As is well known, however, in regard of the Rescue Agreement only ESA, in regard of the Liability Convention only ESA and EUTELSAT, and in regard of the Registration Convention only ESA and EUMETSAT have so far availed themselves of these opportunities.

Finally as to the third category of relevant space players – that of private enterprise. In particular in some areas of space activities where commercial opportunities are now mature and well known, private participation has become a permanent and prominent feature. This applied already for a long time to such non-space but space-related activities as development and construction of spacecraft and instruments or development of certain space-based products on earth. Since a few decades however private enterprise has also entered such important fields of space activities proper as satellite communications and the launch services business.

At the same time, it must be observed that private enterprise for historical reasons is not mentioned anywhere in the space treaties, and somewhat similarly is at best an object in most functional, non-space specific regimes such as that of the WTO. The ITU has only fairly recently begun to provide private parties with their own independent legal status within the framework of the organisation, as to its crucial role in co-ordinating orbital slots, orbits and frequencies for satellite communication operators.

It is here of course that states most prominently play their role as *trait d'union* between international law and other entities. Through the international responsibility as confirmed by Article VI of the Outer Space Treaty and the international liability as elaborated by Article VII of the Outer Space Treaty and then the Liability Convention, states are made to apply international space law rules also to such private entities. From the other side, the authorisation and continuing supervision required by the same Article VI, and more broadly existing or newly established bases for

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[8]. Reparation for Injuries Suffered in the Service of the United Nations, Advisory Opinion, International Court of Justice, 11 April 1949, I.C.J. Rep. 1949, 174.

[9]. See resp. Art. 6, Rescue Agreement, Art. XXII, Liability Convention, and Art. VII, Registration Convention.

jurisdiction such as territory or nationality respectively the registration-based jurisdiction provided for by Article VIII of the Outer Space Treaty, allow states to take up this role. That having been said, the place of private entities in international law in general, and hence even more so in international space law (due to its state-oriented character), in terms of opportunities to assert certain rights under dispute settlement mechanisms has always been troublesome. In international space law, the question certainly remains valid, to which extent private enterprise does have, respectively should have, its own formal role in terms of dispute settlement, read *jus standi*.

4. The issue of parties: a few preliminary remarks

The threefold distinction as between players as sketched – of states, intergovernmental organisations (IGO's) and private entities – leads to a first major tool for analysing the issue of dispute settlement regarding space activities.

State-versus-state disputes are, in view of the foregoing, both the most likely type of dispute to arise under international law, and most fit for being solved at the international (law) level. They form the classical type of dispute in general international law, and this remains true for international space law, viz. the law relevant for space activities, as well.

State-versus-IGO disputes would perhaps have to be further subdivided into two categories: one where the state in question is a member state of the IGO and the other where it is not. In the first case, any dispute between the state and the IGO is likely to be solved by the internal arrangements made within the framework of the IGO (presuming of course such arrangements do exist). In the second case, indeed general international law and the dispute settlement options it offers become relevant again. In both cases, there is no fundamental distinction between general international law and specific space law; at best, under the latter the more prominent role of IGO's makes this category of disputes more relevant.

State-versus-private entity disputes could equally be subdivided into those between a state and a private entity falling under its jurisdiction and those where the private entity concerned does not fall under the state's jurisdiction. In both cases, however, usually it is national law that is involved, as much as national dispute settlement mechanisms. The major difference between the first and the second case is then, that a private entity falling under the jurisdiction of a state which it has a dispute with is in a fundamentally unequal position from a legal perspective. By contrast, in the other case the applicability of both national law and dispute settlement mechanisms is not self-evident, and hence the actual process of dispute settlement and its outcome far from clear. A complicating factor in terms of space activities may stem from the international character also of private involvement therein, which makes it likely that more than one national law, including relevant dispute settlement mechanisms, is potentially involved in any particular dispute.

IGO-versus-IGO disputes will be quite rare, in particular on space issues, in view of the comparatively limited number of IGO's. They are however extremely important and complex, since in the last resort likely to involve two different but sometimes nevertheless overlapping sets of member states. By nature they would seem to require solution at the international law level. However, at least within their member states, and

even more so within their host state, IGO's usually enjoy a measure of legal personality under national law which is much stronger than under international law. Hence, they might perhaps on occasion also be tempted to solve certain disputes in national courts and/or base themselves upon national law.

IGO-versus-private entity disputes could also give rise to quite complex situations, where it is even more likely that parties would seek recourse to national law and national dispute settlement mechanisms. Much depends on whether the private entity in question falls within the jurisdiction of a member state of the IGO, or even of its host state. In terms of space activities, this may be an important issue especially in areas where operational IGO's are active alongside private entities.

Private entity-versus-private entity disputes finally are inherently a matter for national law and national courts, even if the private parties come from different jurisdictions. Nevertheless, in such an international area as that of space activities, with many international joint ventures or public-private partnerships in whatever version, the question would be valid whether it would be feasible to allow this set of systems to be dealt with by national law-means. The major drawback of the national law-solution follows from the international, even global, character of space and space activities. There are by definition so many national law-solutions around; none of them are completely identical, in terms of dispute settlement procedure, for example, whilst also the substantive outcome might of course differ significantly in any particular case. Hence the risk arises of totally fragmented jurisprudence, not to say of possibilities of forum shopping in individual cases. This may be true, and a more or less accepted fact of life in many other areas of international law; from the perspective of space it weighs much more heavily in view of the inherently international character of most of the relevant activities.

5. The legal character of the dispute

Dispute settlement may be about parties, it certainly is also about law. Hence, there are two more major distinguishing factors to be discerned and discussed. This concerns the character of the dispute; where there is both an issue of private law-versus-public law, and one of whether criminal, civil or administrative law is concerned.

Starting with the latter, it is suggested that upon closer view this is very much a matter for national law and national dispute settlement mechanisms, and at that level moreover organised fundamentally differently from state to state. In other words, at the international level, due to the specific legal character of the community of states, the distinction between civil and administrative law is blurred at best, and more often right away irrelevant respectively non-existent. Similarly, criminal law issues in international law still form exceptional, isolated and quite specific cases, with only relatively recently some more permanent international dispute settlement mechanisms such as the International Criminal Court having been established. Consequently, it is submitted that for the present purpose the fundamental distinction between criminal, civil and administrative law issues may be safely ignored.

The other issue is a bit more complicated. The distinction between 'public' and 'private' law is, in its core, focused on the type of players which the law aims at. Public law from this perspective may be perceived as dealing fundamentally with issues

which are of interest to a particular society as a whole, and thus with the role, function and activities of a public body.

On the national level, this refers to a state or state agency. At the same time, of course, individual subjects of such national public law regimes may often have recourse to dispute settlement mechanisms, at least in democratic societies, as well. Thus, disputes on public law are usually between state (agency) and state (agency) (this is often what administrative law is about) or between state (agency) and citizen (usually administrative or criminal in character, but this obviously depends upon the individual state at issue).

Private law by contrast is then generally referring to regimes dealing with issues between two private, i.e. fundamentally equal, parties, which very often means by definition civil law is at stake. Only to the extent state bodies are seen as acting in a private capacity *and* are not protected by their public status (state immunity!), can they become involved in private law disputes as well.

At the international level, further complications arise. Next to states, IGO's represent another type of public entity. Thus, the term 'public international law' is generally referring to the legal rules applicable at the international level knowing states and IGO's as sole subjects; private entities merely play a role – if at all – as objects of the regime at issue.

Such a definition at the same time however turns a number of international treaties, concluded between sovereign states, into elements of private law since the rights and obligations emanating from those treaties fundamentally apply to private entities, albeit through the intermediate role of the states concerned.[10] This is, of course, why such treaties are often labelled 'private international law' treaties; this term focuses on the subject matter *together with* the intended ultimate bearers of rights and duties: private entities (whether natural or legal persons). If we follow this approach, it would make sense to make a principled distinction in any case between public law issues and private law issues also with a view to dispute settlement in space activities.

This would lead to the following matrix for analysis of the place – and space – for (existing as much as to be newly established) dispute settlement mechanisms regarding space and space law issues, in the widest sense of the word.

[10]. A clear example is provided by the treaties constituting the Warsaw system on contractual liability in air transport. Contracting states to such a treaty oblige themselves to make sure that certain categories of private entities under their jurisdiction (notably carriers, passengers and consignors of cargo) are made to bear certain obligations or enjoy certain rights, through the mechanism of automatic or explicit transposition (in monistic respectively dualistic systems). Cf. e.g. Convention for the Unification of Certain Rules Relating to International Transportation by Air, Warsaw, done 12 October 1929, entered into force 13 February 1933; 137 LNTS 11; Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Transportation by Air, Warsaw, 12th October 1929, The Hague, done 28 September 1955, entered into force 1 August 1963; 478 UNTS 371; and Convention for the Unification of Certain Rules for International Carriage by Air (hereafter Montreal Convention), Montreal, done 28 May 1999, not yet entered into force; 48 Zeitschrift für Luft- und Weltraumrecht (1999), at 326.

Table 1. Disputes on space activities: a matrix for analysis

The one side The other side	States	Intergovernmental organisations	Private entities
States	*Public* / *Private*	*Public* / *Private*	*Public* / *Private*
Intergovernmental organisations	*Public* / *Private*	*Public* / *Private*	*Public* / *Private*
Private entities	*Public* / *Private*	*Public* / *Private*	*Public* / *Private*

6. Towards 'filling in' the matrix – a few provisional conclusions

In order to get a clear picture of the need for additional (space law-dedicated) dispute settlement mechanisms, respectively space for such mechanisms, the above matrix should be 'filled in'. The present analysis only focuses on *existing* dispute settlement mechanisms that are or reasonably may be of interest for parties to a dispute related to space activities and space law, and then only *some* of them, to make the point. In most cases, it should be stressed, relevant documents anyway refer back in a general way to existing and broadly available opportunities offered by dispute settlement mechanisms independent from and outside of the scope of the document in question.

The most well known judicial dispute settlement mechanisms available under general public international law, both located in The Hague, are in principle also available to disputes on space activities or other matters related to space law. However, the International Court of Justice (ICJ) is only available for this purpose to states, more in particular only in cases where *both* states have one way or another accepted the jurisdiction of the court. IGO's can, if at all, only avail themselves of the ICJ's wisdom in an advisory capacity, once duly authorised. By its very nature, it deals with public law issues only; private law comes in where public legal ramifications arise.

Access to the other major dispute settlement body, the Permanent Court of Arbitration (PCA), has traditionally also been reserved to states only, but recently – limited – access is also offered to IGO's and even private parties, albeit that disputes between *two* private parties so far are fully excluded. Nevertheless, this allows not only public but also private law disputes to be dealt with.

At the other end, the various national court systems are equally open in principle to all sorts of disputes related to space activities. With the exception of private entity-versus-private entity disputes – where, as mentioned before, the further problem of *which* national dispute settlement mechanism is to be used is prominent in view of the

international character of space activities, and issues of non-uniformity or even forum shopping may arise – such dispute settlement may immediately run into fundamental problems. Wherever states are involved, quite likely sovereign immunity may be invoked and accepted – when it comes to space activities, these are still very often undertaken for political/strategic or scientific reasons, in other words: of a distinctly public character. Similarly, wherever IGO's are involved, functional immunities may be invoked – especially in courts of member states of the IGO in question.

When it comes to judicial (as opposed to political and diplomatic) dispute settlement mechanisms in principle available *for any dispute related to space activities*, this more or less presents the full picture! Only once one 'descends' either into specific treaty frameworks, or specific IGO-frameworks, or specific subject matter, or specific areas, one encounters a large number of dispute settlement mechanisms.

For example, the Liability Convention has its own dispute settlement system – however rudimentary and flawed, in view of the ultimate non-bindingness of the 'judgements' of the Claims Commission[11] – but it obviously is limited to disputes under the Convention, i.e. dealing with disputes on liability for damage as confined by it. This also means that it is open only to states; not even IGO's under Article XXII can call upon it on their own account. This also causes dispute settlement to be a public law-affair. At the same time, it is interesting to note that the Convention explicitly provides for an *additional* means for dispute settlement; other venues, notably private law suits, are not excluded by mere application of the Convention.[12]

As already referred to, the various IGO-frameworks have their own more or less elaborate dispute settlement systems. Such organisations as ESA and INTELSAT (as operational (still-)IGO's) or ITU (as a regulatory IGO) have quite extensive dispute settlement systems, though obviously remaining confined to the subject matter of the area of operation or regulatory activity of the IGO. More seriously is the general lack of bindingness, reflecting the sovereignty of the member states, of such mechanisms (in the case of ITU it has, as far as known, even never been used). Also, neither IGO's (in the case of ITU; obviously for ESA this is not at issue) nor private entities can avail themselves of such mechanisms, again leaving disputes of a private law-character to other dispute settlement mechanisms. To some extent the WTO-framework is furthest advanced, in that it has at least allowed the European Union a more or less equal standing, including its dispute settlement mechanism.

From a totally different angle, the ICC (with its International Court of Arbitration) and UNCITRAL (with its Arbitration Rules), dealing with international commerce- and trade-related issues, are available in potentiality also for space-related disputes. Interestingly, these mechanisms do not only allow for private parties to make use of them, they are actually very much targeted at them. States and IGO's, to the extent relevant, are 'accepted' only on a par with such private entities, in other words: sovereign or functional immunities are not accepted. Also, by definition this means that private law issues will be at stake, not public law ones.

[11]. See Art. XIX(2), Liability Convention.

[12]. See Art. XI(2), Liability Convention.

Consequently, the following matrix arises, admittedly rather non-exhaustive. However, in view of the further complications and differences not yet discussed (e.g., some cases concern arbitration mechanisms, whether ad hoc or more permanent, others court or court-like systems), and the widespread specificity in terms of subject-matter or specific IGO-framework, it suffices to show that in some crucial areas of space activities the necessary comprehensive dispute settlement mechanisms are indeed lacking. Moreover, even if the matrix would ultimately be filled in comprehensively, the issue of lack of coherence remains. Even if any particular corner of the matrix would know its own, comprehensive dispute settlement mechanism, the overall uniformity would certainly be threatened. If only from that perspective, meaning that a mechanism should be established (or, to the extent general principles of law are seen to provide for such a mechanism at least in rudimentary fashion, strengthened) for ensuring overall coherence in dispute settlement, there is certainly space for dispute settlement mechanisms for space.

Table 2. Space for dispute settlement mechanisms for space.

The one side The other side	States	Intergovernmental organisations	Private entities
States	***ICJ; PCA*** *WTO; ITU; etc.* *[Liability Convention]* ***(National law)***	***PCA (ICJ)*** ***((National law))*** *[Various IGO's]* ***(National law)***	***PCA*** ***(National law)*** *(ICC; UNCITRAL)* ***(National law)***
Intergovernmental organisations	***PCA (ICJ)*** ***((National law))*** *[Various IGO's]* ***(National law)***	***PCA*** ***((National law))*** ***(National law)***	***PCA*** ***(National law)*** *(ICC; UNCITRAL)* ***(National law)***
Private entities	***PCA*** ***(National law)*** *(ICC; UNCITRAL)* ***(National law)***	***PCA*** ***(National law)*** *(ICC; UNCITRAL)* ***(National law)***	*N.A.(?)* *ICC; UNCITRAL* ***National law***

Legenda:

Bold	=	***comprehensive (in principle all types of disputes covered)***
(Between brackets)	=	*only under circumstances available (immunity-issues)*
((Between double brackets))	=	***only exceptionally available (double immunity-issues)***
[Between square brackets]	=	*fundamentally limited in scope one way or the other*

The European Space Agency's experience with mechanisms for the settlement of disputes

by André Farand, Legal Department, ESA Headquarters, Paris

Introduction

The European Space Agency is a European organisation established pursuant to a Convention signed in Paris on 30 May 1975 by the representatives of 12 European Member States.[1] The Convention entered into force on 30 October 1980, on the date of France's ratification, and there are currently 15 Member States, Portugal having deposited the instrument confirming its adhesion to the Agency Convention, effective on 14 November 2000. The purpose of the Agency is to provide for and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications.

Discussing dispute settlement mechanisms at ESA could be seen as something of a challenge, because the 25-year history of the Agency has been free of actual cases of dispute settlement. This may be attributable to the dissuasive effect of dispute settlement clauses calling for final and binding disposition of a dispute through arbitration; in other words, because calling into play arbitration clauses implies a significant investment of time and money, the parties to an agreement or a contract will be encouraged, and therefore will make all their best efforts, to settle their disagreement at an earlier opportunity. ESA practice is consistent with regard to concluding agreements or contracts in which dispute settlement clauses, and in particular provisions confirming the possibility of binding arbitration, are accepted by the parties. As we will see below, the space activities conducted by ESA provide numerous angles for examining the various aspects of dispute settlement.

In presenting an overview of ESA's experience with mechanisms for the settlement of disputes[2], the Convention's provisions for disputes should first be discussed, followed by the relevant provisions usually introduced in contracts concluded by ESA with industry or research centres for the purpose of carrying out Agency programmes and activities, followed by a similar analysis of ESA's inter-organisational agreements. Annex I to the Convention, pertaining to the organisation's privileges and immunities, clearly has a significant bearing on ESA's experience with regard to dispute settlement, and this will also be examined below.

Each year, ESA concludes numerous agreements with other international

[1] In the period between the opening to signature of the Convention and its entry into force, the European Space Research Organisation (ESRO) established in 1962 – acting under the name of ESA - continued to exist, the ESA Convention being applied *de facto* during that period.

[2] A fairly complete overview can be found in Bockstiegel K.-H. "Settlement of Disputes regarding Space Activities", in 21(1) *Journal of Space Law*, 1-10. See also Cocca A.A., "Law Relating to Settlement of Disputes on Space Activities", in *Space Law – Development and Scope*, ed. Praeger(Westport), 191-204, from page 195.

organisations and institutions and with governments, organisations and institutions of non-member States for the purpose of cooperating in the conduct of space activities. These agreements, which are generally authorised at Council by unanimous votes of all Member States pursuant to Article XIV.1 of the Convention, may take different forms and designation: fully-fledged agreements, arrangements, memorandums of understanding, exchange of letters (the latter being agreements in simplified form) or even reimbursable agreements, which could be viewed as procurement contracts. ESA also regularly concludes agreements with its Member States or their institutions for the execution of certain parts of its programmes, including the establishment of facilities. Examination of the provisions of these agreements pertaining to dispute settlement may provide a better understanding of the practice which has been established over the years.

Dispute settlement mechanisms may also be examined from the standpoint of what I would refer to as "dispute avoidance clauses and practices". Because the United States is ESA's main partner in space cooperation, NASA practice with regard to cross-waiver of liability, first implemented in the 1970s, has become the standard in the space world and has been widely adopted by ESA. A cross-waiver of liability is of course applicable within a partnership and does not affect the rights of third parties, individuals or States, in the event of their suffering damage from space activities. In this connection, ESA has formally accepted the rights and obligations outlined in the 1972 Liability Convention[3] for the space activities it conducts, and recent developments in ESA's Council have confirmed some movement towards acceptance by ESA and its Member States of the binding nature of arbitration, subject to reciprocity, that could be initiated pursuant to that Convention.

I. The ESA Convention

(a) Privileges and immunities

The need to include provisions in the ESA Convention concerning an arbitration tribunal for the settlement of disputes can be explained and justified by the existence of the privileges and immunities granted to ESA as an international organisation.[4] In this

[3] The Convention on International Liability for Damage Caused by Space Objects, of 29 March 1972, in United Nations Treaties and Principles on Outer Space (A/AC.105/572/Rev.2).

[4] The European Court of Human Rights, in two separate decisions of 18 February 1999 issued in Strasbourg, in (a) the case of Waite and Kennedy v. Germany (Application no. 26083/94), and (b) the case of Beer and Regan v. Germany (Application no. 28934/95), contributed significantly to a better understanding of the effect of an international organisation's immunity from jurisdiction. In these cases, which came after exhaustion of remedies before the German courts by the plaintiffs, the latter, who had worked for a considerable time at the ESA establishment in Darmstadt (ESOC) under a contract between ESA and a foreign firm, claimed they had become ESA staff members in application of a German statute. The gist of the decision in the second case (which is similar to the first) is as follows: "58 For the Court, a material factor in determining whether granting ESA immunity from German jurisdiction is permissible is whether the applicants had available to them reasonable alternative means to protect effectively their rights under the Convention. 59 The ESA Convention ... expressly provides for various modes of settlement of private-law disputes, in staff matters as well as in other litigation. Since the applicants argued an employment relationship with ESA, they could and should have had recourse to the ESA Appeals Board". For the sake of completeness,

connection, Annex I to the ESA Convention provides that the Agency shall have legal personality, within the usual meaning of this expression; it includes the capacity to enter into contractual commitments, to acquire and dispose of movable and immovable property, and to be a party to legal proceedings. Article IV of this Annex confirms that the Agency shall have immunity from jurisdiction and execution, although a number of limited exceptions are also listed in the article. The Agency's property and assets are immune from any form of requisition, confiscation, expropriation and sequestration, and also from any form of administrative or provisional judicial constraint. Over and above the provisions for the protection of the Agency's property and assets, Annex I also deals with tax exemption for official activities, the import and export regime, disposal of funds, the entry, stay and departure of Agency staff, the status of Member States' representatives and of experts, together with the social security regime and fiscal regime of staff members.

The Agency's privileges and immunities are also subject to specific and more detailed provisions in the agreements concluded with a number of Member States to provide a framework for the activities of ESA's technical establishments, in Germany, the Netherlands, Italy and Spain for example. These agreements are generally referred to as "host agreements". In the United States, the Agency benefits from the provisions of the International Organisations Immunities Act, originally through a series of Executive Orders and since August 1998, after amendment of the Act, through applicable provisions of the Act itself[5]. Finally, ESA's activities in Russia, including those carried out by the ESA Moscow Office, are covered by privileges and immunities pursuant to an agreement concluded in 1995[6].

(b) Arbitration tribunal

The ESA Convention, in its Article XVII, specifies that any dispute between two or more Member States, or between any of them and the Agency, concerning the interpretation or application of the Convention or its Annexes

it is recalled that these cases, when submitted subsequently to the ESA Appeals Board, were dismissed because the Board considered that the applications did not fall within the notion of "staff members".

[5] The International Organisation Immunities Act is codified in Title 22, section 288 of the United States Code. A significant case (enquiry) in the United States, directly affecting ESA as a defendant, is the one referred to as "the TCI Affair", summarised in Krige J., Russo A. and Sebesta L., A History of the European Space Agency 1958-87, published by the ESA Publications Division, 2000, 481-490. On 25 May 1984, Transpace Carriers Inc (TCI) filed a petition - based on Section 301 of the Trade Act of 1974 - against eleven European governments and their space-related agencies, in particular ESA and CNES. It accused them of aiding and abetting the European firm Arianespace in illegally dumping its rocket launch services on the US market. The Presidential decision of 17 July 1985 rejected the TCI petition.

[6] See: Agreement between the European Space Agency and the Government of the Russian Federation on the establishment of the European Space Agency Permanent Mission, and its status, in the Russian Federation, ESA/LEG/82 signed on 10 April 1995.

which is not settled by or through the Council, shall, at the request of any party to the dispute, be submitted to arbitration. This also applies to the disputes referred to in Article XXVI of Annex I to the Convention, i.e. those disputes that could arise from damage caused by the Agency, or involving any other non-contractual responsibility of the Agency, or involving the Director General or a staff member of the Agency who can claim immunity from jurisdiction under the relevant provision of the Annex.

The above arbitration procedure shall be in accordance with the conditions outlined in Article XVII and with additional rules adopted by Council. As foreseen in the Convention, these additional rules, which are detailed and extensive, define further matters such as the procedure to be applied, the manner in which the arbitration tribunal is to be set up and the documentation to be provided, were adopted at Council's 66th meeting, in October 1984.

Article XVII of the Convention lays down the following:

(a) the arbitration tribunal shall consist of three members, one nominated by each party, and the third, who shall be the chairman, nominated by the first two arbitrators;

(b) other Member States or the Agency may intervene in the dispute if they have a substantial interest in the decision of the case;

(c) the tribunal shall determine its seat and establish its own rules of procedure;

(d) the award, which shall be made by a majority of the tribunal's members, shall be final and binding on the parties and not subject to appeal;

(e) the parties to the dispute shall comply with the award without delay.

II. Contracts

The above-mentioned Annex I to the ESA Convention, in its Article XXV, directs the Agency to provide for arbitration when concluding written contracts. It adds that the arbitration clause shall specify the law applicable and the country where the arbitrators sit and that the arbitration procedure shall be that of that country. Finally, it mentions that the enforcement of the arbitration award shall be governed by the rules in force in the State on whose territory the award is to be executed.

The general clauses and conditions for ESA contracts provide a standard clause for arbitration to be included in the Agency's contracts. This clause number 13 specifies that:

(a) a party may request that any dispute arising from the contract be submitted to arbitration;

(b) the arbitration tribunal shall have its seat in the country where the contractor has its legal seat or where the contract is to be executed;

(c) any dispute shall be finally settled in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce in accordance with the

corresponding rules, unless agreed otherwise in the contract; in the latter case, the procedure of the arbitration tribunal shall be that of the country mentioned in the contract;

(d) the award shall be final and binding on the parties and no appeal shall lie against it; its enforcement shall be governed by the rules of procedures in force in the State in which it is to be executed.

(e) As mentioned before, there is no known case of arbitration related to ESA contracts. It could be added that ESA contracts with the industry of Member States generally indicate that the arbitration will take place in the capital of the State named in the contract. In the case of Russian industry, the practice has been to elect that arbitration take place in Stockholm, under Swedish law.

III Agreements

(a) Consultation and dispute settlement clauses in agreements concluded by ESA

In preparing this paper, I consulted the agreements concluded in the period 1998-2000 between ESA and other international organisations and institutions and with governments, organisations and institutions of non-member States for the purpose of cooperating in the conduct of space activities. I believe that the examination of the agreements concluded by ESA over a longer period would have led me to the same findings since ESA's practice has been consistent over the years. The list contains a first category of agreements, i.e. those concluded with States of Central and Eastern Europe to establish a general framework for cooperation[7]. These agreements contain provisions for consultation between the parties when a question of interpretation arises. As a second step, the establishment of an arbitration tribunal is envisaged for a final disposition of the dispute, with the usual approach whereby each of the parties names an arbitrator, with the third arbitrator being named by the first two arbitrators. The relevant provisions specify that in case of disagreement on the nomination of the third arbitrator, the President of the International Court of Justice (ICJ) may be asked to proceed with this nomination. A second category of agreements concluded during the above-mentioned period concerns the relations between ESA and technical organisations of Member States, which contain similar clauses. For this category, however, it is generally the Chairman of the International Chamber of Commerce, or in a certain number of cases either the President of the ICJ or the Secretary General of the Permanent Court of Arbitration, who may be asked to nominate the

[7] For an extensive analysis of these agreements, see Kopal V., "Cooperation Agreements with ESA, Central European Viewpoint" in *Legal Aspects of Cooperation between the ESA and Central and Eastern European Countries*, Proceedings of the International Colloquium, Charles University, Prague, 11-12 September 1997, Kluwer Law International, 31-41. See also Hoskova M., "Tendencies of dispute settlement in present eastern European space law" in *Proceedings of the 39th Colloquium of the Law of Outer Space*, International Institute of Space Law (IISL), 7-11 October 1996, Beijing, 75-84.

third arbitrator in case of disagreement on this matter between the parties.

(b) Impact of space station cooperation on ESA practice

The most important international partnership ever concluded for a technological and scientific project is that arising out of the 1998 Intergovernmental Agreement (IGA) concerning cooperation on the International Space Station, concluded between the United States, Russia, Japan, Canada and the European Partner encompassing 11 ESA Member States. Upon its entry into force, this IGA will replace the corresponding 1988 Agreement to which Russia was not a party.[8] ESA is the Cooperating Agency designated by the 11 ESA Member States to discharge the responsibilities of the European Partner, through a number of dedicated ESA optional programmes conducted consistent with the ESA Convention. The detailed obligations of ESA are set out in the ESA/NASA Memorandum of Understanding (MOU) concerning cooperation on the International Space Station, signed on 29 January 1998, one of four similarly-worded MOUs signed early-1998 between NASA and each of the other Cooperating Agencies of the Partner States.

Current practice with regard to the drafting of dispute settlement clauses for all types of arrangements concluded between ESA and its main space partner, NASA, in all fields of cooperation or other types of dealings between the two entities, derives primarily from the outcome of the mid-1980s negotiations on the Space Station project. Negotiation of the new IGA in 1994-1997 has not, except on one specific point[9], modified the approach to dispute settlement established in 1988, suggesting that the original Partners and Russia had decided that this approach reflected the most balanced solution that could be reached in any circumstances.

One of the most difficult issues during the original negotiations on the Space Station project in 1985-88 was undoubtedly dispute settlement. A number of Partner States, on the one hand, contended that an international project of this magnitude could only be envisaged on the solid grounds provided by binding arbitration as a mechanism for dispute settlement. On the other hand, the United States

[8] It may be important to recall that ESA and NASA cooperated extensively on the Spacelab project in the 1970's, on the basis of an agreement dating from 1973 which could be considered on many aspects, including a number of legal ones, as a trend-setter for Space Station Cooperation. To illustrate the magnitude of the project, it is recalled that development of the International Space Station has been valued at 60 billion US dollars, of which approximately 3.5 billion US dollars represents the European contribution; it is also expected that an equal amount will be spent by the Partners on the operation and utilisation of the Station during the 10-15 years of its exploitation. See by the author "Legal Environment for Exploitation of the International Space Station (ISS), in *International Space Station: the Next Space Marketplace*, Kluwer Academic Publishers, 2000, 141-153.

[9] In the 1988 MOU, NASA had precedence in case of a disagreement with another partner in a cooperation body and could ask for immediate implementation of the contested decision, i.e. absence of consensus, pending settlement at higher level(s). In the 1998 MOU, as a result of Russia's arrival in the partnership, it is provided that a partner may decide not to implement its part of a contested decision pending settlement.

insisted that, because of the sheer magnitude of the project and the sums involved, it was in the interests of the parties to settle their disagreements at the lowest possible organisational level, i.e. even before reaching the stage of formal consultations and State-level dispute settlement, and that therefore binding arbitration was not needed.

The approach to dispute settlement in Space Station cooperation is somewhat complex. First, it has to be borne in mind that day-to-day cooperation is conducted primarily through a number of technical cooperation bodies, organised in a hierarchical structure, each coordinating the partners' responsibilities for aspects of the project. The MOU provides that these bodies conduct their activities on the basis of consensus. In other words, an issue shall not be considered resolved until consensus has been reached among the interested agencies. If a disagreement persists between two or more partners on a particular issue, then a two-level consultation process may be pursued consistent with the relevant MOU provisions, normally ending with a decision of the highest authorities of the Cooperating Agencies. At this stage, an unresolved issue could still be submitted for consultation between representatives of the Partner States concerned in accordance with the IGA. Finally, Article 23.4 of the IGA provides: "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, or arbitration". This language of compromise indicates that: (a) there is actually the possibility for the Partner States to submit their disagreement to a form of dispute resolution, and (b) this possibility can only be exercised subject to a new agreement of the interested parties, on a case by case basis, as to the form it should take.

The approach to dispute settlement in almost all of the agreements, whatever their type and subject, concluded between ESA and NASA in recent years, borrows from the Space Station approach described above. The first step in resolving a difference of interpretation on a particular issue takes the form of discussion in the management structure established for the project, i.e. between the engineers interacting daily for the purpose of conducting the activities. The second step involves possible consultations, at the appropriate level, by agency officials and, further, a decision by the highest authorities of the Agencies. The third and final step requires that a new specific agreement between the two agencies be concluded for proceeding subsequently with a formal settlement of dispute through conciliation, mediation, or arbitration.

IV. Dispute avoidance clauses and practices

A number of measures can be adopted to limit the need for dispute settlement procedures to be called into play. ESA has taken such measures by introducing cross-waiver of liability clauses in the majority of its agreements, not only with organisations of non-member states but also with organisations of Member States. Also, by recognising for its own activities the obligations that could be generated by application of the 1972 Liability Convention, ESA pursued its objective of introducing more certainty into the legal environment in which space activities take place.

(a) cross-waiver of liability

Briefly, cross-waiver of liability clauses are provisions confirming the parties' commitment to refrain from presenting claims against another party to an agreement or contract in the event that the other party causes damage. In other words, each party agrees to bear the cost of losses resulting from unforeseen events. These waivers have become an indispensable element of high-risk space and aeronautical activities world-wide; beyond merely saving money on insurance premiums, cross-waivers encourage space activity by reducing uncertainty. With the largest class of potential claims eliminated, i.e. the one related to damage to goods caused by the interactions of two partners in the framework of a particular activity, and thus clearly excluding losses generated by the failure of a party to abide by its contractual obligations, each party may proceed unburdened by the concern that other involved parties may bring claims against it.[10]

Cross-waiver of liability clauses may be simple and all-embracing or, on the contrary, fairly complex, particularly if they provide for a number of exceptions, in particular those confirming that injury, impairment of health or death caused to a person are excluded from application of the cross-waiver. They occasionally provide for the obligation on a party to waive claims against the other party and its related entities throughout the chain of its contractors and subcontractors. Such clauses have been adopted in the majority of the ESA agreements described in this paper.

(b) 1972 Liability Convention

The ESA Member States are parties to the 1967 Outer Space Treaty[11] and the 1972 Liability Convention. One of those Member States, France, has jurisdiction over the Guyana Space Centre in Kourou. Delegations of the Members States of ELDO and ESRO, ESA's two "predecessor" organisations, succeeded in having a clause inserted in some of the space treaties, including in Article XXII of the 1972 Liability Convention, enabling an international organisation conducting space activities to accept the rights and obligations set out in the said Treaty, thus allowing the Treaty to be applied to some extent to that organisation. ESRO presented its declaration of acceptance of the rights and obligations set out in the 1972 Liability Convention on 23 September 1976, concluding that "the reference made in this Convention to "States" applies to it with effect from the date of the present Declaration". This resulted in the ESA Council adopting, on 13 December 1977, a Resolution

[10] See the written statement by E.A. Frankel, NASA General Counsel, before the Subcommittee on Space and Aeronautics Committee on Science of the US House of Representatives, 30 October 1997, accessible on the Internet at www.prospace.org/issues/cats/971030_ed_frankle_xwaiver.htm.

[11] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, of 27 January 1967, in United Nations Treaties and Principles on Outer Space, (A/AC.105/572/Rev.2).

on the Agency's legal liability, setting out in detail the practical conditions according to which ESA Member States would respond to a claim for damage caused by space activities conducted by the Organisation.[12] Finally, in a Resolution dated 21 June 2000,[13] the ESA Member States:

(a) recommended to Member States not having done so to recognise, subject to reciprocity, the binding effect of the decision of the Claims Commission provided for in the Liability Convention;

(b) invited the ESA Director General to build on its declaration of 23 September 1976 to recognise, subject to reciprocity, the binding effect of the decision of the Claims Commission provided for in the Liability Convention, provided that two-thirds of Member States had taken similar steps.

Conclusion

This paper reveals two trends in ESA's practice with regard to the settlement of disputes. The first is based on the ESA Convention, which clearly favours the constitution of an arbitration tribunal for final disposition of a dispute between ESA and another entity under public international law, or between ESA and a contractor. The second trend is that which tends to develop in large-scale cooperation projects with international partners, where the possibility of referring a dispute to arbitration or another dispute settlement mechanism is subject to conclusion of a new specifc agreement, once the multi-layered consultation process has been exhausted.

It is difficult to foresee how these trends will evolve. However, although ESA will continue, for the foreseeable future, to carry out its activities in the manner envisaged by the Convention, i.e. on the basis of financial contributions from its Member States for its mandatory and optional programmes, a number of upcoming developments may have an impact on ESA practice, including practice relating to dispute settlement. First, ESA is bound to adopt a "closer to market" approach to its activities, for example by encouraging increased competition in Europe's space industry and entering into partnership with industry for specific projects. In this connection, a particular challenge ahead is the plan to commercialise approximately 30% of Europe's share of International Space Station utilisation. Another challenge is the *"rapprochement"* between ESA and the European Union, which was mapped out in a resolution adopted at ministerial level by each of the two organisations on 16 November 2000. This could result in ESA carrying out the European Union's projects when these require a space segment. These are significant challenges for the next decade which are likely to have an impact on many aspects of ESA activities and possibly on its dispute settlement mechanisms.

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[12] See Bourély M., "Space Law and the European Space Agency", in *Space Law - Development and Scope*, Ed. Praeger (Westford), pp 82-96. The text of the declaration of acceptance and Resolution on the Agency's legal liability are reproduced, in French, in Lafferranderie, G., "Responsabilité juridique internationale et activités de lancement d'objets spatiaux au CSG", in issue 80 of the *ESA Bulletin* (November 1994), pp 59-68.

[13] The Resolution's title is: "Additional Declaration concerning Claims Commission awards under the United Nations Convention on International Liability for Damage Caused by Space Objects".