AN INTRODUCTION TO THE PCA’S
OPTIONAL RULES FOR ARBITRATION
OF DISPUTES RELATING TO
OUTER SPACE ACTIVITIES

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I. INTRODUCTION

On December 6, 2011, the Administrative Council of the Permanent Court of Arbitration (PCA) adopted the Optional Rules for Arbitration of Disputes Relating to Outer Space Activities (Outer Space Rules). In an effort to address fundamental lacunae in the existing dispute resolution mechanisms of international space law, the Outer Space Rules were created to provide a means of voluntary and binding dispute resolution available to all parties engaged in outer space activities and tailored to the particularities of this unique area of economic activity. In the few months since their completion, they have already attracted attention from legal practitioners representing actors in outer space activities.

The Outer Space Rules are the product of over two years of dedicated work by a group of international experts, in conjunction with the International Bureau of the PCA. Having had the pleasure to chair the expert group throughout, I propose to introduce the Outer Space Rules to the academic community by

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II. THE INITIAL STAGES

The initiative for the development of a set of specialized arbitral rules for disputes that arise in the space sector came from the PCA, an intergovernmental organization counting 115 member states. One of the PCA’s principal functions is to facilitate dispute resolution, including arbitration, between various combinations of states, state entities, intergovernmental organizations, and private parties. The PCA’s secretariat, the International Bureau, headed by the PCA Secretary-General, provides full registry services and legal and administrative support to arbitral tribunals and commissions. Most significantly for our purposes, since 1992 the PCA has adopted eight sets of party and sector-specific rules of procedure for arbitration or conciliation developed by expert groups. In 2009, inspired by these experiences and suspecting the lack of an adequate dispute resolution mechanism for space-related disputes, the Administrative Council of the PCA approved the establishment of an Advisory Group of legal experts (“Advisory Group”), with a mandate to:

... firstly ... assess generally the need for a final and binding dispute-settlement mechanism for disputes involving the use of outer space by states, intergovernmental organizations and private entities and, specifically, ... highlight the benefits of arbitration in this regard. Secondly, the Advisory Group will draw up optional rules to this end for inclusion in the PCA’s set of arbitration rules.

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2 In parallel to this text, another introduction to the Outer Space Rules by Dr. Stephen Hobe is being published (in English) in the Zeitschrift für Luft- und Weltraumrecht (German Journal of Air and Space Law) (2012).
4 Letter from the PCA Secretary-General to the members of the PCA Administrative Council (May 29, 2009) (on file with the PCA).
The then Secretary-General of the PCA, Mr. Christiaan M.J. Kröner, officially invited me to chair the Advisory Group on November 17, 2009.

My first mission as Chair was to compose an Advisory Group on the basis of the highest internationally acknowledged professional qualifications, with due regard given to achieving a broad geo-political representation, reflective of the PCA's wide state membership. The Advisory Group's substantive knowledge of space law, including its dispute resolution aspect, was to complement the PCA International Bureau's extensive practical experience in the use of various sets of procedural rules in arbitral proceedings. Accordingly, the members of the Advisory Group were: Dr. Tare Brisibe (Nigeria), Prof. Frans von der Dunk (Netherlands), Prof. Joanne Gabrynowicz (United States), Prof. Dr. Stephan Hobe (Germany), Dr. Ram Jakhu (Canada), Prof. Armel Kerrest (France), Mrs. Justine Limpitlaw (South Africa), Prof. Dr. Francis Lyall (United Kingdom), Prof. V.S. Mani (India), Mr. Jose Montserrat Filho (Brasil), Prof. Dr. Maureen Williams (United Kingdom/Argentina), and Prof. Haifeng Zhao (China).

III. Arbitration as a Sectorialized Dispute Resolution Mechanism for Space Law

Upon constitution, the Advisory Group directly embarked on fulfilling the first part of its mandate: to consider the desirability of, or need for, arbitration rules specifically targeted at the resolution of space-related disputes. This phase was conducted through questionnaires, multiple rounds of comments, and a survey of existing outer space related instruments that either contained or could have contained provisions for dispute resolution through arbitration. When these documents revealed a general consensus in support of arbitration among the Advisory Group, I resolved to take advantage of the highly specialized expertise of the Advisory Group members, and invited those members who were willing to submit discussion papers on the dispute resolution needs of particular areas of space law.
Five discussion papers were submitted and circulated within the Advisory Group.\(^5\)

The Advisory Group’s starting-point for these discussions was that in the last twenty-five years a relatively firm consensus seems to have emerged in academia affirming the need for a sectorialized dispute resolution mechanism for disputes relating to outer space activities. Proposals have been made for a variety of solutions, including the establishment of a new international court for space law.\(^6\) Given the existing scholarship on this subject, we chose not to dwell on all aspects of dispute resolution in space law, but to focus on: (1) noting the relevant contemporary characteristics of outer space activities, (2) evaluating whether arbitration could provide an effective means for dispute resolution in an area possessing such characteristics, and (3) devising how existing procedural rules for arbitration could be modified to better fit the particularities of space-related disputes.

We first noted that the past few decades have seen a steady rise in space-related activity, primarily due to an increase in the commercial uses of outer space, especially in the sectors of satellite communications, launching services, and remote sensing.\(^7\) It seems reasonable to suppose that this increase in activity augments the risk of disputes.\(^8\)


There has likewise been an increase in the number and variety of the actors involved in space activities. In a field long dominated by the U.S.A. and the former U.S.S.R., there are now over thirty countries possessing significant space industries. Moreover, there has been a notable relaxation of government control on space activities. This factor, coupled with an increase in the possible commercial uses of outer space, has led to the influx of a variety of non-state actors onto the stage of space law. Space-related disputes can now arise between states, state agencies, intergovernmental regional or international organizations, and private entities, such as national and multinational corporations. With the advent of space tourism, even private persons may become entangled in disputes relating to outer space activities.

Further, due to the high level of financial and scientific investment required by most uses of outer space, the space sector exhibits a high level of international cooperation, both between states and private entities of various nationalities. Thus a great number of space-related disputes are likely to arise at an international level.

An effective dispute resolution mechanism in space law would therefore be international, accessible to a variety of public and private parties, and capable of responding to potentially high demand for dispute resolution. In this regard, the Advisory Group noted that existing dispute resolution mechanisms in international space law present several lacunae, some of which merit mention.

In particular, numerous existing dispute resolution mechanisms are limited either in their personal or material scope. Thus, many mechanisms are not available to private parties.

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10 Id. at 157.
12 von der Dunk, Discussion Paper, supra note 5, at 6-7.
13 Goh, supra note 9, at 149-152.
International space law being initially conceptualized as a branch of public international law, dispute resolution was envisaged only as between states. Moreover, even the most elaborate dispute resolution procedures for state-to-state disputes, found in the 1972 Convention on International Liability for Damage Caused by Space Objects (Liability Convention), suffer from a limited material scope (covering only claims for compensation for damage caused by space objects), – and a lack of binding power in the absence of specific agreement by the parties. None of the other fundamental space law treaties provide any specific guidance as to dispute resolution. The founding convention of the European Space Agency (ESA) provides for arbitration between two or more member States, or between States and the agency, but of course only for disputes related to its interpretation and implementation. The instruments of the International Telecommunications Union also provide for arbitration, but only as regards certain subject matters, such as harmful interference to registered radio frequencies. In the absence of a specialized dispute resolution mechanism, States can rely on general mechanisms of dispute resolution available in public international law, for instance diplomatic negotiation or adjudication before the International Court of Justice. However, these methods and venues are not available to private parties.

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14 Cheng, supra note 7, at 165-66.
16 Convention for the Establishment of a European Space Agency, art. XVII, May 30, 1975, 14 I.L.M. 864. The ESA also includes arbitration clauses in all its external contracts. Id. at art. XXV.
Private parties may be inclined to resort to international commercial arbitration. At the moment, international space law arbitration agreements between private parties generally provide for arbitration under the United Nations Commission on International Trade Law Arbitration Rules (UNCITRAL Rules) or the procedural rules of private arbitration institutions. These rules, however, praised for being applicable to "the circumstances of various types of disputes and procedures," are not necessarily adapted to space-related disputes.

Having considered the contemporary characteristics of outer space activities, the Advisory Group concluded that international arbitration has multiple advantages for the resolution of space-related disputes. First, arbitration is a method of dispute resolution open to all parties active in the field. The PCA, for instance, administers arbitrations that involve states, state-controlled entities, intergovernmental organizations, and private parties.

Second, arbitration is a voluntary mechanism, premised only on the consent of the parties. This consent can be provided before a dispute arises by insertion of an arbitration clause in the legal instrument that defines the parties' relationship. In space law, this instrument can be an inter-State treaty, an agreement between a State and the space industry, or a commercial space contract between private enterprises or a private enterprise and a State agency. The voluntary – or, as expressed in the title of the Outer Space Rules – "optional" aspect of arbitration is important where States are involved, as they may be more willing to agree to binding dispute resolution under discrete agreements than to enter into a new significant...
multilateral treaty to the effect that all space-related disputes are to be dealt with in one way, be it, for example, through the establishment of an international court for space law, or the creation of an additional chamber to the International Court of Justice.24

Third, arbitration results in final and binding decisions.25 This contrasts with the recommendatory nature of decisions under the Liability Convention. In arbitration, no appeals are possible and only limited grounds for challenge are available.26 This can be of great importance given that space activities often operate on precise and fixed schedules, especially as regards the time windows for landing, atmospheric re-entry, descent and landing, and orbit insertion.27 In these situations, only swiftly-obtained final decisions are of any value. In addition, dispute settlement clauses calling for final and binding decisions may have a dissuasive effect on the parties, as suggested, for example, by the dearth of disputes arbitrated under the ESA’s arbitration provisions.28

Fourth, arbitral awards are internationally recognized and enforceable in all signatory states of the New York Convention, presently one hundred and forty-six.

Fifth, arbitral procedure is flexible and can be modified by agreement of the parties.29 This may be of great use in the rapidly-evolving field of space activities.

Sixth, parties to arbitration choose their own decision-makers. Unlike in a court, where the only expertise parties can expect from the judge or judges assigned to their case is legal,
parties in arbitration have the option of selecting arbitrators with specialized competences in the relevant fields. This is especially useful given the interdisciplinary nature of space activities, involving fields as diverse as economics, cutting-edge technology, and a tangle of scientific branches. On occasion, outer space technology such as remote sensing, may have legal or evidentiary limitations that are not immediately apparent to most adjudicators.  

Finally, arbitration can serve to preserve the confidentiality of sensitive information. Hearings need not be public and awards need not be published. This is important for space-related disputes, as they may involve information concerning major state contracts and novel high technology, potentially treading the fine line between civil and military applications. The confidentiality of some of this information may be crucial to national security interests. For example, many states may insist on the sensitivity of remote sensing imagery.

The Advisory Group, in drafting the Outer Space Rules, sought to further enhance many of these general features of international arbitration, as described below.

IV. DRAFTING THE RULES

A. General Considerations

The second part of the Advisory Group’s mandate was the drafting of the Outer Space Rules. Here too, our methodology involved questionnaires and rounds of comments. This phase was marked by a higher degree of involvement by the PCA’s International Bureau, and featured an in-person meeting of the Advisory Group in the Hague.

It is also worth mentioning that the work of the Advisory Group was punctuated by regular reports to the PCA Administrative Council, which keenly followed our progress. The initial draft of the Outer Space Rules was submitted for consideration

30 Williams, Discussion Paper, supra note 5, at 4-5.
31 See Outer Space Rules, supra note 1, at arts. 28(3) & 34(5).
32 Gabrynowicz, Discussion Paper, supra note 5, at 6-7.
by the PCA member states in May 2011. Throughout the summer of 2011, the member States sent us in depth commentary, which assisted us in ensuring that the Outer Space Rules would reflect, among others, the concerns of States and intergovernmental organizations. At the end of the process, the Administrative Council of the PCA adopted the Outer Space Rules by consensus.

Our strategy was to rely for the basis of our work on the 2010 UNCITRAL Rules, as well as on multiple sets of PCA procedural rules. The UNCITRAL Rules are the most widely used set of procedural rules in international commercial arbitration. They are an attractive model because their provisions have generated, since the adoption of their first version in 1976 by the UNCITRAL, an amount of case law and academic commentary much larger than that inspired by any other set of procedural rules for arbitration. By relying on the phrasing of the UNCITRAL Rules – whenever a departure from their provisions was not called for by some unique aspect of space-related disputes – we tapped into a wealth of precedent, thus enhancing the degree of predictability in the interpretation and application of the Outer Space Rules. Moreover, a new version of the UNCITRAL Rules was adopted in 2010, after protracted provision-by-provision revision discussions within the UNCITRAL Working Group II (Arbitration and Conciliation), taking into account many of the lessons learnt from thirty-four years of usage of the UNCITRAL Rules. We considered that the Outer Space Rules should benefit from these lessons. We did, however, find it equally beneficial to draw from other sources. Given the high proportion of participation by States, State agencies, and regional and international organizations in space activities, we found it most useful to seriously analyze the PCA rules of procedure tailored to use by such parties: the PCA Optional Rules of Procedure for Arbitrating Disputes between Two States (1992), the PCA Optional Rules for Arbitrating Disputes between Two Parties of Which Only One is a State (1993), the PCA Optional Rules for Arbitration between International Organizations and States (1996), and the PCA Optional Rules for Arbitration of Disputes between International Organizations and Private Parties (1996). Precious ideas and drafting were also borrowed from
the PCA’s first set of sector specific rules, the PCA Optional Rules for Arbitration of Disputes Relating to Natural Resources and/or the Environment, aimed at the resolution of disputes concerning a subject matter – environment and natural resources – that shares momentous traits with outer space activities: among other, a high level of technical complexity and the sensitivity or confidentiality of information pertinent to the arbitral proceedings.

The result of the Advisory Group’s efforts to adapt these models to the specificities of space-related disputes may best be illustrated by drawing attention to a few salient aspects of the Outer Space Rules.

B. Specific Provisions

In contrast to other dispute resolution instruments in international space law, the Outer Space Rules’ scope of application is maximally broad. As is apparent from Article 1(1), the Outer Space Rules can be adopted by consent as the rules of procedure between any parties, whatever their nature. The final sentence of Article 1(1), providing that “the characterization of the dispute as relating to outer space is not necessary for jurisdiction,” serves to manage the factual ambiguity that may arise over whether the dispute between the parties relates closely enough to “outer space.”

While the Advisory Group considered drafting a test for determining whether or not a particular dispute was related to outer space, it was decided that where parties to a contract or other legal relationship agree to use the Outer Space Rules, the geographic, technological or other factual particularities of the dispute should not frustrate the parties’ stated intent to proceed to arbitration. The *ratione materiae* jurisdiction of the Outer Space Rules thus depends solely on the will of the parties and in no way on any conception of “outer space.” Articles 3(3)(d) and 4(3)(d) further broaden the scope of the Outer Space Rules by enumerating among the documents

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which must be identified in a Notice of Arbitration or a Response to the Notice of Arbitration the panoply of instruments to which space disputes may be related: “rule, decision, agreement, contract, convention, treaty, constituent instrument of an organization or agency.” This language goes beyond that of the UNCITRAL Rules, in recognition of the variety of sources of law and the important role of States in space law.

The involvement of States in space activities is further taken into account in Article 1(2) of the Outer Space Rules, which stipulates that agreement to arbitrate under the Outer Space Rules amounts to “a waiver of any right of immunity to jurisdiction.” It is generally understood that consent to arbitration constitutes a waiver of immunity to jurisdiction. This principle is made explicit in this article both as concerns the sovereign immunity of states and any immunity to jurisdiction that intergovernmental organizations may have.

The Outer Space Rules tackle the potential technical and scientific complexity of disputes relating to outer space activities from a variety of angles. As mentioned above, the possibility for parties to choose their decision-makers renders arbitration more attractive than adjudication for the settlement of space-related disputes. To enhance this advantage, Article 10(4) of the Outer Space Rules assists parties in their choice of arbitrators by mandating the Secretary-General of the PCA to compile a standing list of arbitrators with an expertise in space-related matters. The use of this list is optional. The qualifications of arbitrators are ensured because they are nominated by PCA member states and proposed by the Secretary-General, in consultation with the legal community in the relevant field. Where its technical and scientific knowledge proves insufficient, the

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35 See e.g. Frans G. von der Dunk, Response to First Questionnaire (Feb. 19, 2010); Ram Jakhu, Comments and Suggestions to First Questionnaire (Feb. 28, 2010); Joanne Gabrynowicz, Response to CP-OS 31655 and its Attached Annex (Feb. 28, 2010) (on file with the PCA).


37 The list is currently being compiled and, once complete, will be made available on the PCA website at www.pca-cpa.org.
arbitral tribunal may appoint experts to assist it. Pursuant to Article 28(7) of the Outer Space Rules, the Secretary-General compiles a list of technical and scientific experts to facilitate the tribunal’s choice of experts. As with the list of specially-qualified arbitrators, the use of this list is optional, leaving parties the option of selecting experts from such sources as the membership directory of the International Academy of Astronautics, which elects by secret ballot over a thousand leading experts in space and space-related science and technology. Moreover, pursuant to Article 27(4) of the Outer Space Rules, the arbitral tribunal may enhance its understanding of technical issues by requesting the parties to provide a “non-technical document summarizing and explaining the background to any scientific, technical or other specialized information which the arbitral tribunal considers to be necessary to understand fully the matters in dispute.” This type of document may assist the tribunal in assessing evidence and in determining whether experts need to be consulted. The provision for the possibility of a five-member tribunal, found at Article 9(1) of the Outer Space Rules, also anticipates the possibility of highly complex, high stake arbitrations, potentially involving crucial national State interests and large amounts in dispute.

Given the need for heightened confidentiality in space-related matters identified by the Advisory Group, the usual arbitral protections were expanded in the Outer Space Rules. Most significantly, Article 17(8) provides for the appointment of a “confidentiality adviser,” whose role is to report to the tribunal on an issue on the basis of confidential information, without revealing the confidential content of the document to the tribunal or the other party. The technical justification for this mechanism is that the confidential information might be of such a technical nature that it would not mean much to the arbitrators, but would be meaningful to a confidentiality advisor who is also a technical expert. The ethical justification for the confidenci—

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ality advisor mechanism is that there may be times where the party would not wish the arbitrators to acquire knowledge of the confidential information, in particular “because of the fear that one party-nominated arbitrator might be an unscrupulous arbitrator who might be the source of a leak.”

The PCA has an active role under the Outer Space Rules. Article 1(3) provides for registry services and secretarial support by the PCA International Bureau. The PCA, because of its unique status as an intergovernmental organization with broad membership and its extensive experience managing arbitrations involving States or State entities, is better positioned than private arbitral institutions to manage arbitrations involving the entire range of parties expected to be involved in outer space activities. Article 6(1) identifies the Secretary-General of the PCA as the default appointing authority under the Outer Space Rules. On this basis, the PCA Secretary-General has the responsibility, upon request by a party, to appoint, replace, and decide challenges against arbitrators. While the option of naming the PCA Secretary-General as default appointing authority was extensively considered by the UNCITRAL Working Group charged with the drafting of the UNCITRAL Rules, it was not adopted, the PCA Secretary-General receiving instead the role of designating authority, charged with designating an appointing authority where none is agreed by the parties. In contrast, by naming a specific appointing authority, the Outer Space Rules avoid potential delays in the constitution of the tribunal or during subsequent challenges to arbitrators for parties who have not previously agreed on the identity of an appointing authority.

40 Id.
41 As of March 15, 2012, the PCA’s docket includes 58 cases to which at least one party was a state or state entity.
42 Outer Space Rules, supra note 1, at arts. 8(1), 9(2), 9(3), 10(3), 13(4), & 14(1).
V. CONCLUSION

In developing the Outer Space Rules, the Permanent Court of Arbitration and the Advisory Group sought to fill some of the fundamental lacunae in existing dispute resolution mechanisms of international space law. The rules provide a comprehensive voluntary dispute resolution procedure specifically tailored to the peculiarities of disputes relating to outer space activities. Their success depends entirely on how much confidence they can inspire in the international community. I am certain that the work and thought invested into the Outer Space Rules by the Advisory Group and the PCA International Bureau, described in this introduction, and the detail of the Rules’ provisions, which I now invite you to explore, will inspire such confidence.