

THE UNIDROIT DRAFT OF A SPACE ASSETS PROTOCOL A CIVIL LAW INSTRUMENT UNDER A PUBLIC FRAMEWORK

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ABSTRACT

Further to the adoption of the UNIDROIT Convention on International Interests in Mobile Equipment, the UNIDROIT Space Assets Protocol has been under discussions for several years and addresses the question of the regulation of the financing of space activities. In this matter, international private law only brings limited solutions and the adoption of a uniform international regime might serve legal certainty and support private financing. Until now, consensus has not been achieved in all elements of the Protocol. Particular difficulties arise from the fact that the issue is at a cross road between civil law financing instruments and the international regulation of space activities. This paper addresses the legal issues resulting from this independency.

The Protocol addresses the specific difficulty arising from the location of the assets in space, implying limited access and ownership. This leads to the question of the identification of space assets, in particular as far as the registration of International Interests is concerned. This civil registration shall not impair the public register maintained by the Secretary of the United Nations, which is the baseline for an extension of the State's jurisdiction and control. A transfer of ownership in the case of the implementation of the remedies foreseen for the debtor's default under the Protocol might impact the rights related to the object and lead to new licence requirements.

A limitation of the remedies might also be examined, since their implementation might affect the launch while the Launching State remains liable. The purpose of the analysis is to provide solutions within the framework of the existing legal regime without narrowing more than it is necessary the scope of application of this civil law instrument.

I. INTRODUCTION

The Cape Town Convention on International Interests in Mobile Equipment (the "Convention"), was negotiated and opened to signature under the work of the UNIDROIT¹ Organisation in November 2001 and entered into force on 1. April 2004. The Convention sets out a general framework for the international financing of mobile equipment. For a case by case application, the Convention is to be completed by a series of three protocols, each of them dedicated to a particular international equipment. The first relevant

Protocol is dedicated to Aircraft Equipment (the "Aircraft Protocol") and was adopted at first, simultaneously with the Convention². This was then followed by the adoption of the Luxembourg Protocol on matters specific to Railway Rolling Stock (the "Railway Protocol"), signed in Luxembourg on 23. February 2007³. The Space Assets Protocol to the Convention is the last of the three implementing instruments and is currently on the way to finalization⁴. It is not by chance that the Space Assets Protocol is the last one in this development. In this case, several

elements unknown for the negotiation of the two first protocols come into question.

The first one lies in the fact that the assets the protocols deals with are located in outer space and are for this reason in most cases inaccessible to human contact. This is not without meaning for the Space Assets Protocol. Indeed, it aims at implementing an asset-based financing instrument, as opposed to a project-based one. The practical impact of this orientation is that international interests shall be taken on the space asset itself (*in rem*) and not on the economic value of the project as such, which means an aggregated value of contractual relationships under the law of obligations.

Further, the technology involved is still subject to evolution and it is impossible as of today to predict what space technologies will provide mankind in a couple of years from now. Yet, the protocol aims at providing a long lasting and flexible framework and its viability is dependant upon its adaptability to the technological framework for space activities. However, the amount of assets potentially covered worldwide by the field of application of the protocol is today still relatively limited, as the financing of private space assets is still almost exclusively made on a project-financed basis.

In this context, one of the most challenging issues for the finalization of the Space Assets Protocol is its interaction with the existing legal framework applicable to space activities. Indeed, an international financing tool for space assets is being negotiated for the first time. Until now, the international framework applicable to space activities is composed of five Treaties adopted at the beginning of the Space Age. Consequently, those concentrate on activities of States in Outer Space and have little consideration for private space activities. However, this international framework is relevant for the Space Assets Protocol, which has to find its place in this international context. The civil law instrument the Space Assets Protocol aims at creating will find application in a public law dominated area.

The present paper presents a critical overview on the relevant legal framework for private actors and presents the current negotiation status of the Space Assets Protocol. Finally, current issues of the negotiation process will be addressed.

II. INTERNATIONAL SPACE LAW: AN UNAVOIDABLE BACKGROUND FOR PRIVATE SPACE ACTORS

The first objective of the Convention is to facilitate the financing of high value mobile equipment, which by nature crosses borders more frequently than any other asset. Therefore, the necessity of having a unique instrument based on a unique international registration system is obvious. The Convention and the respective implementation protocols aim at facilitating the execution of remedies of creditors in case of non-payment. If this is achieved, creditors, and to a larger extent, financial institutions, might be drawn to new businesses in the space field. In the case of space assets, the Convention and the Space Assets Protocol could help to bring into the space field financing institutions, who for the moment rather concentrate on more terrestrial matters. The harmonised remedies could stand for more investment safety. For this reason, the Space Assets Protocol could support the creation of new financing solutions.

The Space Assets Protocol aims at implementing an efficient liquidation proceeding based on a new uniform legal framework and independent from local administrative customs. This logic of an international asset-based financing system assumes that the cross-border transfer of ownership under civil law does not fall under unexpected restrictions; in addition the applicable law should be easy to define. Those assumptions are partly in conflict with principles of public Space Law.

1. Applicable law

According to Art. VIII Outer Space Treaty (OST)⁵ “a State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such

object...". Art. VIII, 2nd sentence OST clarifies that "ownership of objects launched in outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a celestial body or by their return to the Earth". Without Art. VIII OST, the private ownership would be isolated from a protecting legal regime; only Registration by a Launching State creates the link to a national legal system. This baseline for the applicable law in an environment free of national appropriation and sovereignty (Art. II OST) has as condition: the registration of such space asset, which is in practice effected only a couple of month after launch. Indeed, the final parameters for registration are determined only after the commissioning phase, meaning when the payload has reached its final orbit destination and is partially or fully exploitable. The registration is reserved exclusively to Launching States as defined in Art. VII OST, Art. I of the Liability Convention (LIAB)⁶ and Art. I of the Registration Convention (REG)⁷. In the case there is more than one Launching State – which actually happens quite often – following the definition as provided above, according to Art. II (2) REG "they shall jointly determine which one of them shall register the object".

2. Responsibility for national activities

The international framework applicable to space activities created under the work of the United Nation does not accept any private space activity without a clear link and responsibility to an appropriate State. Art. VI OST states that "States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty." According to the

reasons set out before, only Launching States concerned can be in a position to execute those authorization and control obligations. A Launching State remains responsible and liable (Art. VI, VII OST, LIAB) for that space object for an unlimited period of time in the frame of the field of application of the UN Treaties.

Under precise consideration, this presents several issues since a State, which is only involved in a limited way in a space activity (e.g. a State that is only involved in the launch operation because its territory was used for the launch, and in consequence has nothing to do with the further operation of the payload) can still be held liable for damages at an international level. This is also the case in the event of a transfer of ownership⁸ under civil law: the transfer of ownership has no retroactive impact on the Launching State and it does not affect the initial public law constellation of Launching States / Registering State.

However, the State whose private entity has acquired as creditor a (foreign) space asset should have the opportunity to react to this new situation, since it is responsible for the activities of the creditor. The same is true for an authorizing State whose insolvent private entity lost the power of disposal to the creditor/private entity of a foreign State. Indeed, in this case also, the State is responsible for the activities of its nationals in space under the dispositions of the OST. This responsibility for authorisation and control is not linked with the quality of Launching State, but has another legal basis resulting from Art. VI OST. The French Act on space activities of 3 June 2008⁹ presents in this matter an adequate solution, since it imposes an authorization obligation upon the transfer of space objects launched. Under the authorization, the French State can ensure that the new space objects for which France is internationally responsible are conform to certain technical regulations and operated in an appropriate way. Those reflections are not only legal theory but have a concrete impact on the elaboration of the Space Assets Protocol.

Art. 3 (paragraph 1) of the French Act states: "transferring the control of a space object having been authorized under this law to a third party is subject to the prior authorization of the administrative authority." This authorization requirement applies according to Art. 3, paragraph 2 as well to the inverse case: "any French operator who intends to control a space object the launch or control of which has not been authorized under this law must obtain a prior authorization granted for that purpose." For financing and leasing institutions, which are the most concerned by the Convention, these boundary conditions might be quite unusual but it is a necessary condition to ensure that space activities, even conducted by private operators, are conducted under an internationally acceptable manner. Moreover, having in any case a State responsible for a space object ensures effective control over it and might help to avoid the development of the practice of flags of convenience, as seen in the maritime field. These issues of international law cannot remain ignored by the Space Assets Protocol. Should the Space Assets Protocol lead *de facto* to a transfer of ownership of a space asset because of bankruptcy or insolvency of an operator, this should be organised in a matter consistent with the international public law framework, even if this leads to some additional discussions.

3. Restrictions of safety regulations

Space assets can often have a dual use character, which means that they can serve for civilian as well as for military purposes. Since space assets also often rely on missile technology, they might also undergo transfer restrictions and export control dispositions. This is true for all kinds of space assets.

Art. XVI (2) of the preliminary draft of the Space Assets Protocol (version 2003) gives Contracting States the opportunity to restrict or attach conditions to the exercise of remedies in case "the exercise of such remedies would involve or require the transfer of controlled goods, technology, data or services".

As a consequence, Contracting States can place restrictions or conditions on the remedies available to creditors regarding controlled space assets or involving transfers or assignments of related rights¹⁰.

Special attention must be given to the Wassenaar Agreement¹¹ and the Missile Technology Control Regime¹².

4. Limitations for public interest reasons

The issue of the limitation of remedies for reason of public interest is still under discussion. This reserve should avoid that the implementation of remedies under the Protocol affects a service run at a public level. In this matter, the negotiations about the Space Assets Protocol are confronted with the diverging conceptions that States have regarding the sole notion of public service. Options in this case could consist in leaving the definition of the notion of public service to the States concerned on a case by case basis or radically exclude the public service domain from the application field of the Space Assets Protocol.

III. STATUS QUO OF THE SPACE ASSETS PROTOCOL: THE WAY FORWARD?

The first reading of the preliminary draft Protocol on Matters specific to Space Assets took place in Rome from 15 to 19 December 2003 in the framework of a UNIDROIT committee of governmental experts. During the second session of governmental experts, held in Rome from 26 to 28 October 2004, a number of policy issues were raised, which are still under discussion today. Since this time inter-sessional work has been undertaken, especially those of the Space Working Group (SWG).

The Royal Bank of Scotland (RBS), a member of the SWG invited the governmental experts and the SWG to a Governmental-Industry Forum, which took place in London on 24 April 2006. A second government/industry meeting on invitation of Milbank, Tweed; Hadley & McCloy was held in New York on 19 and 20 June 2007. At its 61st session on 29 November 2007, the UNIDROIT General

Assembly endorsed the establishment of a steering committee with the goal to build consensus within the group of governmental and industry experts. The Steering Committee had its first meeting on invitation of the German Ministry of Justice, supported by the German Space Agency DLR in Berlin between the 7 and 9 May 2008.

The official reference text of the Draft Protocol on Space Assets is still the version of December 2003. However, the number of open points of discussion has drastically increased.

IV. OPEN POINTS OF DISCUSSION

Several fundamental issues remain unsolved and delay the finalization of the Space Assets Protocol. Those are not unessential and condition substantial elements of the Protocol. They concern its field of application, the question of related rights, the limitation of remedies and the question of the international register.

1. Field of application of the Space Assets Protocol

The first issue to be addressed in this matter is the time period of application, or in other words the question of the beginning of the field of application of the international legal instrument. Is it the beginning of the industrial production of the space asset on ground, the acceptance by the customer after delivery, the transfer to the launch pad or the launch itself? After long lasting discussions and options proposed, it was agreed that there should be no interruption within a financing concept of a space operation and the Space Assets Protocol should find application even on ground before launch.

The major problem regarding the scope of application is the definition of the space assets concerned. In the Aircraft Protocol and the Railway Protocol, an enumeration of the assets concerned by the respective Protocols (air frames, aircraft engines, helicopters and railway rolling stocks) is conclusive. In space, the situation is more complex and the technical developments are not settled yet. A limitation on today

economically relevant objects, such as satellites would perhaps not meet the needs of the next generation and a revision for modernisation of such a legal instrument at a later stage is an incalculable effort. In general, the alternative is either to have a longer enumerative list of assets or a general clause.

Following the deliberations as of today, consensus has been reached on the relevance of at least satellites, space stations, space vehicles, launch vehicles, reusable space capsules in, or intended to be used as a launch vehicle. The main characteristic of this category of assets is that they are capable of being independently operated, used and commanded. The operative accessibility gives the practicable chance of recourse in the event of default.

Another layer of discussion concerns the possible inclusion of components of a space asset in the application field of the Space Assets Protocol. In contrast to the question of related rights, which will be further debated in this paper, components are clearly and obviously asset-related. They often have an enormous commercial value and utility, which makes them interesting for financiers.

Components can be classified into two categories. Firstly, there are items which can be operated, used and commanded solely in connection with the space asset concerned (e.g. propulsion devices and solar cell panels). On the other hand, there are components which operation is not limited to the physical link with the space asset concerned and which can be operated, used and commanded independently (e.g. transponders and sensors). Only this last category should be included in the field of application of the Space Assets Protocol.

Therefore, the definition of the assets falling within the field of application of the Space Assets Protocol should be a combination of an enumeration of assets and a limited inclusion of uniquely identifiable items. Those components should be related to the enumerative list of

assets and capable of being independently operated and commanded¹³.

The question of independent use and operation is a general category for a well balanced system of default remedies. Thanks to this criterion, it will be possible to distinguish competing interests of creditors of different assets and or components, which are physically or by their function linked together. This can, for instance, be the case where several satellites are linked through an interposed orbital relay station and this entire constellation would no longer be able to function if an individual satellite were to be removed from the constellation. Here, too, recourse should only be possible to the extent that mutual impairment can be ruled out.

The consequence of this complex field of application is the necessity to balance conflicting interests and the risk of undue impairment of rights in a differentiated solution for the exercise of default remedies¹⁴.

2. Associated and related rights

According to Art. I (2)(a) of the preliminary draft protocol (Version 2001), „associated rights“ with respect to space assets means *inter alia* “(i) to the extent permissible and assignable under the national laws concerned, all permits, licences, approvals and authorisations granted or issued by a national or intergovernmental body or authority to control, use and operate the space assets, including orbital use authorisations and authorisations to transmit and receive radio signals to and from space assets”.

In a footnote¹⁵ of the draft protocol version 2003, the SWG recommendation¹⁶ to introduce the new terms “debtor’s rights” and “related rights” is mentioned; but further elaboration on this proposal is suggested by the Committee of Governmental Experts. The relevant definition of “related rights” as proposed by the SWG¹⁷ is following: “any permit, licence, authorisation, concession or equivalent instrument that is granted or issued by, or pursuant to the authority of, a national or intergovernmental or other

international body or authority to manufacture, launch, control, use or operate a space asset, relating to the use of orbits and the transmission, emission or reception of electromagnetic signals to and from a space asset”.

From the point of view of the creditor, “there is a great significance in intangible rights and “control”... and contractual rights such as performance warranties”. Associated rights are according to this opinion “inextricably linked to a physical satellite and are integral to the commercial value of a satellite”¹⁸. This argumentation jumps over a clear distinction between asset-related rights and contractual, project-related rights.

Two aspects have to be distinguished: a space asset in form of a satellite in orbit can only be controlled by indirect possession¹⁹. Possession as such is a crucial element for the transfer of ownership and the enforcement of remedies. Legal instruments to gain possession are therefore relevant. On the other side, operator-related permits and licences are only valid for a special (legal) person and are not transferable. Most of the time, they are granted *intuitu personae*. This is the same situation for an industrial plant on ground. The UN Treaties are insofar only an additional aspect to be observed with regard to a cross-border transfer of ownership. This necessity for the successor to apply for his own permits and licenses does not hinder on ground the transfer of ownership of industrial complexes. Why should it in orbit?

The critical aspects of the inclusion of related rights have been detailed in a German Working Paper during the Steering committee in Berlin in May 2008. The main arguments are following: The intention to create an independent international interest in debtor’s rights and related rights in addition to an interest in “space assets” is not in line with Art. 2 of the Convention, according to which the international interest can only be created in a uniquely identifiable object, as listed in Art. 2(3)(b) – here in the category “space assets” – and not in subjective rights.

Under Art. 2, an interest can only be created by virtue of a security agreement, a title or reservation agreement or a leasing agreement. By contrast, such “debtor’s rights” and “related rights” would have to be effected in an assignment (by way of security).

Besides arguments of legal systematic, one should also take into consideration the practical aspect, that independent debtor’s rights or related rights might be counter productive in the sense of weakening the position of the asset-related rights (in the event the debtor’s rights are transferred to a different creditor). For systematic purposes, the question of access to debtor’s rights in the event of default should be solved in the context of recourse, respectively exercising an interest, and not on the level of creation of an international interest.

From the aspect of national space legislation it is fundamental to avoid giving the impression that individual operator-oriented licences are transferable rights.

3. Limitations of remedies / launching phase

The launch is the most sensible and relevant phase for a space mission. A disturbance of a launch sequence could lead to extensive damage. Therefore, there is a need for a special temporary protection against enforcement measures by creditors. During the Steering Committee Meeting in May 2008 Germany introduced the following proposal:

“Article IX para. 7: The creditor shall not exercise default remedies according to Chapter III of the Convention during the launching phase. The launching phase begins on arrival at the final launch position; it ends on arrival at the first orbital position or on departure from the final launch position on account of termination of the launch.” This is in line with similar exceptions for aircrafts with passengers on board.

4.

Interface UN -UNIDROIT - Register

The main provisions concerning the registration of space assets according to the UNIDROIT regime is contained in chapter IV of the Cape Town Convention and in chapter III of the Space Assets Protocol. The purpose of this registration is to ensure precedence in all Member States of the registered security interest in case of bankruptcy or insolvency. Therefore only transferable rights should be admitted. Related rights in form of subjective licences are not the right category.

Under regular conditions, the UNIDROIT-registration takes place before the registration of the space object. Nevertheless, the latter criteria of the UN-Registration could be an additional identification criterion. On ground, a single number might be sufficient for the unique identification of an object. In orbit, a registration number is not really helpful. The identification has to be guaranteed by a combination of different indications.

V. CONCLUSIONS AND PERSPECTIVES

In order to fulfil the economic goal of this international financing instrument, the Space Assets Protocol must create an entirely new asset-based approach. It should not only improve the situation of established creditors, working today on a project-based financing regime but also open new perspectives for creative newcomers, potentially concentrated on smaller assets or components.

The Space Assets Protocol has to adhere to the existing international framework for space activities. Especially the transfer of ownership has to comply with the legitimate rights of launching states, responsible for jurisdiction and control as well as the related national space law regulations.

Adequate solutions are feasible but an intensive analysis of the specifics of the space sector is a pre-requisite.

*The opinions expressed in this paper are entirely those of the authors and do not in any way engage the organisations with which they are affiliated.

¹ www.unidroit.org

² Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment.

³ Luxembourg Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Railway Rolling Stock.

⁴ Goode, Sir Roy, Official Commentary on the Convention on International Interests in Mobile Equipment and the Protocol thereto on Matters specific to Aircraft Equipment, as approved for distribution by the UNIDROIT Governing Council pursuant to Resolution No. 5 of the Cape Town Diplomatic Conference, UNIDROIT 2002

⁵ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, opened for signature on 27 January 1967, UN DOC. A/RES/2222/XXI, 610 UNTS 205

⁶ Convention on International Liability for Damage caused by Space Objects, opened for signature for 29 March 1972, UN-DOC. A/RES/2777/XXVI, 961 UNTS 187

⁷ Convention on Registration of Objects Launched into Outer Space, opened for signature 14 January 1975, UN DOC. 1023 UNTS 15

⁸ Schmidt-Tedd, B./Gerhard, M., Registration of Space Objects: Which are the Advantages for States Resulting from Registration? In: Benkö, M./Schrogl, K.-U., Space Law: Current Problems and Perspectives for future regulation, Utrecht 2005, p. 121, 131 f

⁹ Bill Nr. 2008-518 of June 3rd, 2008 relating to space operations, see Journal Officiel de la République Française, 4 June 2008; for the English version see Schmidt-Tedd, B./Arnold, I., The French Act relating to space activities, From international law idealism to national industrial pragmatism, ESPI Perspectives 11, August 2008, <http://www.espi.or.at>

¹⁰ See Larsen, Paul. B., Memorandum on National Restrictions on the Transfer and Operation of Space Assets, Space Working Group New York 19/20 June 2007, UNIDROIT Working Paper

¹¹ www.wassenaar.org/docs/IE96

¹² www.armscontrol.org/documents/icoc.asp

¹³ A corresponding German proposal of May 2008 for a definition in Art. I (2)(g) Draft Protocol reads as follows: "Space Asset means

(i) satellite, space station, space vehicles, launch vehicle, reusable space capsules in, or intended to be launched in or into space or used, or intended to be used as a launch vehicle and

(ii) any other uniquely identifiable item capable of being independently operated and commanded attached to, or intended to be attached onto the satellite, space station, space vehicles, launch vehicle, reusable space capsules"

¹⁴ A corresponding German proposal of May 2008 for a definition in Art. IX (4)-(6) Draft Protocol reads as follows:

"(4) The creditor shall only exercise the default remedies according to Chapter III of the Convention insofar as this does not affect the use of, international interests in, and other rights relating to, other space assets physically linked to the secured space asset.

(5) Paragraph 4 shall apply with necessary modifications where space assets are not physically linked to each other but where the essential use of one such asset is not possible without the other asset.

(6) In the cases referred to in paragraphs 4 and 5 recourse shall be permitted where

a) the person impaired by recourse consents to the recourse or

b) the creditor offsets the impairment of the use of the international interest or of the other right in the space asset by taking equivalent technical measures."

¹⁵ Footnote 6 in the preliminary draft Protocol 2003

¹⁶ Footnote 7 *ibid.* with reference to UNIDROIT C.G.E/Space Pr./1/W.P.13

¹⁷ UNIDROIT 2004 C.G.E/Space Pr./2/W.P.4

¹⁸ Memorandum on the Importance for Space property of the Inclusion of associated rights, 2nd Joint Session ICAO/UNIDROIT, 24 Aug.-3 Sept. 1999, ICAO Ref. LSC/ME/2-WP/7 and UNIDROIT C.G.E./Int. Int./2-WP/7 Appendix I Cif. II

¹⁹ The situation for objects on a space station might be different