IAC-O6-E6.2.A.04

2006 STATUS REPORT ON THE UNIDROIT SPACE PROTOCOL

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I. Introduction

In the immediate post-Sputnik I (1957) era, space commerce was conducted by and regulated by governments. Private activities in outer space did not exist, except in science fiction. In the 1980s the nature of the space industry began to change rapidly due to developments in the regulatory environment, technologies, commercial strategies, and consumer demands. Private space commerce developed significantly. Government deregulation and enactment of the WTO Agreement on Basic Telecommunications[1] boosted private enterprise in space commerce. The increase in launch capacity, the number of transponders per satellite, the size and volume of satellites, and the decreasing costs for manufacturing, launching and operating satellites stimulated the entire space industry. The demands for space services keep growing as the services become stronger and more reliable. Consumers indicate increasing requirements for international telephony, broadcast, and mobile satellite services. Consequently, there is an increasing demand for private and public satellite infrastructure and satellite service companies. Privately operated satellite networks utilize existing contractual laws but may require new private international laws specially designed for private contracts on space assets [2]

II. Private Commercial Space Transactions

A. Private Contracts Subject to National Law of Contracts

In the absence of international laws, international trade of space assets is subject to domestic laws.[3] Many of the contracts for construction of satellites, launches and for satellite services take place in the United States or in European countries. They are subject to U.S. laws or European laws, either because an effective 'choice of law' clause is entered into the contract, or application of U.S or European laws are required by the state laws governing conflict of laws

The relevant U.S. national law on contracts is the U.S. Uniform

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[1] Agreement on Basic Telecommunications, Feb. 5 1998, See discussion in Larsen, Future Protocol on Security Interests in Space Assets, 67 J. Air. L .& Com. 1097 – 1100.

[2] Larsen and Heilbock, UNIDROIT Project on Security Interests: How the Project affects Space Objects, 64 J. Air L. & Com. 3-5.

[3] Examples of choice of law treaties are the Convention on the International Recognition of Rights in Aircraft, 310 UNTS 152, and the UNIDROIT Convention on International Financial Leasing, Unidroit@Unidroit.org

Commercial Code (UCC).[4] The UCC is not U.S. federal law. It is state law, establishing virtual uniformity of law in all the States of the United States. Space equipment sold in the United States is subject to the UCC. It is only natural that the manufacturers, financiers, and borrowers, located in the United States, where the property (the res) is also located, will feel most comfortable being subject to U.S. law with which they are familiar. Even when non-U.S. parties are involved they may feel most secure choosing U.S. laws in their contracts. Thus the UCC governs many international contracts for sale of space equipment.

U.S laws may govern not only the contract to purchase space assets but also the financing of that contract, because space assets may be purchased subject to secured interests in the assets. [5] The UCC governs agreements on security interests in space assets. The UCC section 9-103(3) provides that:

> The law (including the conflict of laws rules) of the jurisdiction in which the debtor is located governs the perfection and the effect of perfection or non-perfection of the security interest. If, however, the debtor is located in a jurisdiction which is not a part of the United States, and which does not provide for perfection of the security interest by filing or recording in that jurisdiction, the law of the jurisdiction in the United States in which the debtor has its major executive office in the United States governs the perfection and the effect of perfection or no-perfection of the security interests through filing.

The UCC, Section 9-203, states three situations in which a security interest attaches to space equipment: (1) when the debtor enters into a security agreement with the creditor and their agreement describes the collateral; (2) when the loan has been issued for value; and (3) when the debtor has rights in the collateral. The holder of the security interest may then file the security interest in a state registry in order to obtain the protection added by the filing. The major idea of the registry is "that a good faith effort at filing would be successful and that a good faith search would reveal the presence of the secured creditor's claim."[6] Under UCC Section 9-312(5) secured creditors' claims to priority in collateral are based on the time of filing. First priority is given to the person who files first.

The laws of the European Continental countries on security interests originate in Roman law. The creditor retains title to the chattel until the debt is paid in full. Thus the debtor cannot transfer ownership to third parties until the debt is paid. Continental European laws tend to respect legal rights derived from the law of the original situs of mobile property if those legal rights can be

[4] See UCC text, The Portable UCC, American Bar Association (ABA). All subsequent UCC references are to this text.

[5] This issue is relevant to later discussion of a possible space protocol to the Cape Town Convention on International Interests in Mobile Equipment, Unidroit@unidroit.org, see Draft Uniform Space Protocol, Section III, below. Note that space equipment is classified as "mobile equipment" under the UCC

[6] White and Summers, Uniform Commercial Code, at 797 (1972).

accommodated within the municipal law of the new situs. Thus, if legal rights cannot be accommodated under the municipal law of the new situs, the Continental approach may result in failure to recognize legal rights in space equipment, causing financial losses for the financiers. Uncertainty as to the legal rights of the financier of the secured interest causes uncertainty and impedes trade in space assets [7] In order to create certainty, the parties to a contract may include a choice of law clause in their contracts. That choice may be U.S. national law if that results in greater certainty. Contracts law governing private contracts on space assets include contracts on financing of those assets. Financing contracts have become an area of possible new uniform international law designed specially for financing of space assets.

III The 2001 Cape Town Convention and Its Draft Space Protocol: [8]

A. The Space Industry Working Group and UNIDROIT

A space industry working group established under the aegis of the International Institute for the Unification of Private Law (UNIDROIT) undertook the preparatory work on a treaty instrument on space asset financing, This working group has met regularly since 1997. Represented on the working group are manufacturers, financiers, insurers, and satellite operators, as well as space lawyers from representative countries. The purpose is to involve experts with practical experience in financing space assets. The space industry working group is chaired by a U.S. space finance expert. This working group drafted a space protocol which initially was transmitted to UNIDROIT in 2002. UNIDROIT then convened a committee of experts representing governments because only government representatives can finally negotiate treaties; however, the government representatives work closely with the space industry working group. The objective is to create a special space asset protocol to the 2001 Convention on International Interests in Mobile Equipment (known as the Cape Town Convention). The Convention itself came into force on April 1, 2004.[9] This Convention is designed to have three separate protocols, one for aviation, [10] which is in force and became operational on March 1, 2006. Other protocols for rail and space assets are planned.[11]

The Cape Town Convention's purpose is to secure financing of high value equipment such as aircraft, railroad and space assets that move easily and frequently from one national territory to another or move into non-sovereign territory (outer space, in the case of space assets). Convenient financing requires ability of financiers to quickly seize security assets.. The Convention helps to remove creditors' feeling of

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[7] Larsen & Heilbock, supra n. 2, at 10-20.

[8] International Institute for the Unification of Private Law (UNIDROIT), International Interests in Mobile Equipment – Study LXXII, http://www.unidroit.org/english/workprogramme/study072/main.htm

[9] Id. Convention on International Interests in Mobile Equipment (Cape Town Convention), ___UNTS____, 118 Stat. 1095 (2004))

[10] Id,

[11] Id, A final diplomatic conference on the rail protocol is scheduled to be held in Luxemburg, 12 – 23 February, 2007; afterwards only the space protocol remains to be finalized..

uncertainty about the legal status of their secured interests when the secured assets are moved into foreign territory. Recovery of satellites in outer space is particularly intriguing. Lessors have similar difficulties recovering leased objects. The assets are outside the state and enforcement becomes complicated. The national laws on secured interests vary. Financiers and satellite operators may face the uncertainty of law of foreign countries that cannot be identified beforehand. Some state laws do not favor non-possessory security arrangements,[12] An international uniform regime would establish certainty and predictability which encourages international financing. The Cape Town Convention creates an international uniform regime linked to an international registry of filed assets.

In brief, under the Cape Town Convention, secured interest in mobile equipment, known as 'international interests' are registered in an international registry which supercedes national registries, such as the U.S. Uniform Commercial Code (UCC) state registries. The international registry becomes *the* authoritative, comprehensive registry. [13]

Aviation, rail, and space assets each have separate international registries. Certain formal familiar conditions are mandatory (registrations must be in writing, the asset must be possessed by the obligor, it must be identified and secured), in order. to qualify as an international interest. To come within the scope of the Convention, debtors must be located in a contracting state at the time of contracting. In case of default the creditor may take possession, or sell the assets, or grant a lease, or collect income from the assets. The international interests are filed electronically in the international registry. Parties may register secured interests as well as assignments of interests, subordination of interests, extensions and discharges. A Supervisory Authority is designated to supervise the Registrar, prepare regulations for operation of the registry, receive complaints, audit the registry and make regular reports. The Supervisory Authority may be an international organization. For example, ICAO is the Supervisory Authority for the Aviation Protocol. The Registrar may be a contractor specially created to operate the registry. Both the Supervisory Authority and the Registrar enjoy immunity, but the Registrar may be liable for negligent acts and may therefore acquire insurance for its protection. Access to the electronic registry is open to the public. Any party to a financing agreement may register a financial interest. The filing of a financial interest establishes priority over later filings and over unfiled interests. International interests may be assigned. Parties may select a forum to have exclusive jurisdiction over disputes arising under the Convention.[14]

Each Protocol to the Cape Town Convention may modify the basic framework of the Convention to suit its own special financing needs, whether it is an aviation, rail or space asset. Financing of the three kinds of assets have developed differently and thus it

[12] Roberts, Carruth, Stuber, and Sundahl, International Secured Transactions and Insolvency, 40 International Lawyer, at 389.

[13] http://www.unidroit.ort/english/implementat/i-2001-convention.pdf

[14] Id.

became necessary to structure separate legal regimes. The success of this structural separation is evidenced in the practical experience with the Aviation Protocol. The aviation registry began to operate on March 1, 2006. Parties to aviation equipment transactions experienced initial problems, but they have now adjusted to the new registration system. At the time of writing (2006) only a few aviation states have ratified the Aviation Protocol, but the United States, a major aircraft manufacturing state, is a party. Therefore approximately 90% of the existing filings have originated in the United States. Other aviation states, the European Union states, Russia, China, India and others are reportedly preparing to ratify. It is significant that several states with developing economies have joined. They are particularly reliant on asset-based financing because they do not have other assets to use as security. The U.S. Export-Import Bank has reduced transactional fees on its loans for aircraft equipment which benefits developing economies. It is reported that in the first three months "[T]he registry recorded 2,500 registration sessions in which 8,200 financial interests in individual aircraft and engines were chronicled. Some 11,000 searches of the registry were conducted," New filings in the registry are reported to have been completed within two days. [15]
The experience of the first three months of operation under the Aviation Protocol shows that the Cape Town treaty systems work as intended. However, practical experience shows that the regime is not perfect. For example, parties discovered that they could not file fractional aircraft ownerships. It is now too late to change the Aviation Protocol which is a treaty instrument. Such shortcomings must now be remedied by private contracts. The financiers, manufacturers, and lawyers involved in financing aviation equipment transactions are now familiar with the Aviation Protocol and recommend it to their customers. Furthermore, the U.S. Federal Aviation Administration has identified all aircraft and helicopter equipment in the U.S. national registry that is eligible for filing under the Aviation Protocol regime in order to facilitate filings with the new registry.[16]

The success of the Aviation Protocol shows international acceptance of the basic concept of the Cape Town Convention. That reflects favorably on using this proven legal system for international financing of other subjects such as financing of space assets. Another positive factor is at work regarding space asset financing. There is considerable overlap of parties involved in aviation and space equipment financing. Among these parties there existed a feeling that the Aviation Protocol would succeed best on its own merits without being weighed down by association with a space protocol. However, there is no longer a feeling that the space protocol should be delayed just to further the Aviation Protocol, because the Aviation Protocol regime is now effectively launched. Finally, there has been some concern that the users would object to paying the registration fee. However, experience with the Aviation Protocol now shows that parties to a financing agreement find the benefits of the registry outweigh the expense of using it.

[15] OTT, Protecting Assets, Aviation Week & Space Technology, July 17, 2006, at 170.

[16] Id.

B. Critical Issues in the Space Protocol

The draft space protocol is in a fluid state in which the stakeholders can adjust the treaty legal regime to suit their needs. This adjustment process takes place in the space industry working group and is subject to negotiations in the UNIDROIT government committee. Because the protocol will have to be adopted as a treaty by the states, states can still shape it for maximum compatibility with their national financing laws. For example, the U.S. seeks to shape the space protocol to be as much like its Uniform Commercial Code as possible. Continental users prefer the regime to be as much as possible like the European laws on security interests. The space industry working group has yet to determine a number of critical issues. Also, the protocol must be compatible with existing international laws, in particular the existing space law treaties. [17]

1. Two Registries: The Registration Convention's Registry and the Space Protocol's Registry

The Convention on Registration of Objects Launched into Outer Space (Registration Convention) is a public law treaty. Its purpose is to avoid collisions among satellites in outer space, retrieve space objects, identify space objects, establish jurisdiction over space objects, and promote safety. The launching state must register space objects in its national registry and in the international registry maintained by the U.N. Office of Outer Space Affairs (OOSA).[18] States mainly ratify the Registration Convention because they have satellites. States which do not have satellites have no significant reason to ratify. Thus, many states would not become parties to the Registration Convention

Registry of security interests under the space protocol will be organized to serve different purposes than registration under the Registration Convention. First, individual companies rather than states would register their financial interests in space assets. Secondly, the space protocol would regulate relationships between creditors and debtors rather than relationships between states. Third, the scope of the Space Protocol would be broader than the scope of the Registration Convention because the definition of space *assets* is broader than the definition of space *objects*. There are no clauses in either of the two treaties requiring membership in the other treaty. There is no linkage between the two treaties. On the other hand there is no legal obstacle for contracting parties to agree to register under the Registration Convention at the same time or prior to registration of financial interests in assets under the space protocol. Coexistence and independent

[17] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, 610 U.N.T.S. 205 (Outer Space Treaty).
Agreement on Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, 672 U.N.T.S. 1119 (Rescue Convention).
Convention on International Liability for Damage Caused by Space Objects, 961 U.N.T.S. 18 (Liability Convention).
Convention on Registration of Objects Launched Into Outer Space, 1023 U.N.T.S. 15 (Registration Convention).
Agreement Governing Activities of States on the Moon and Other Celestial Bodies, 1363 U.N.T.S. 21 (1979 Moon Agreement).

[18] http://www.unoosa.org

functioning of the two registries is not a cause of concern. The Space Protocol respects the primacy of the Registration Convention whenever it applies.[19]

2. Space Protocol's Definition of Space Asset

The reason for the draft space Protocol's broad definition of space asset is that the private parties to a commercial space transaction prefer that the entire financing transaction, from the very beginning of the manufacturing process to deployment in outer space should become subject to one comprehensive financing agreement in order to avoid conflicts between financiers of separate financing agreements. The result will be easier, more comprehensive and simpler financing of entire outer space projects. However, space assets are so broadly defined that its exact boundaries may be difficult to ascertain. The space industry working continues to work on realistic criteria for identification of space assets and in order to simplify the definition. and thus make registry of space assets more manageable

3. Protocol's Definitions of Debtors ' Rights and Related Rights

The space industry working group is still working on the definition of transfer from debtors to creditors of so-called 'related rights.' These are the valuable permits, licenses, authorizations, concessions issued by government authorities to the debtor to manufacture, launch, and operate the space asset including rights to use radio frequencies and orbital slots. The draft space protocol would include within its scope security interests in related rights along with security interests in rights defined as space assets. Permitting separate registrations of security interests in debtors rights and related rights would complicate the registry established by the space protocol.. The space industry working group is considering further simplification of the process of registry of debtors' rights and related rights..

4. Liability of States Parties to the Liability Convention for Launching Space Objects after Title to the Space Object Has Been Defaulted to a Financier in a Non-launching State..

The Convention on International Liability for Damage Caused by Space Objects[20] is an agreement among states: Only states have rights under the Liability Convention. Individual companies and individuals that have been damaged can only present claims through the contracting states on a government-to-government basis. For example, the Canadian government presented claim for damages to the then-USSR for damages caused by the disintegration of the Cosmos 954 reconnaissance satellite over Northern Canada. The launching state is liable for damages under the Liability Convention. Suppose a financier from a non-launching state obtains possession of a satellite upon default of the debtor from a launching state that is liable for damages while the satellite is in possession of the financier? The launching state still remains liable under the Liability Convention. The financier's state and the launching state can, on a bilateral basis, negotiate transfer of liability to the financier's

[19] See discussion of primacy below in Section III (B)(1)(c), Formal Recognition of the Primacy of the International Space Law Treaties.

[20] Supra n.17.

state. Such bilateral agreements are not uncommon among states. [21] For that purpose, states will need to know when a financier obtains ownership of satellites. Registration of secured assets under the draft space protocol is subject to the public law provisions of the Liability Convention and related bilateral agreements concluded with the launching state. The draft space protocol respects the primacy of the Liability Convention.[22]

5. Formal Recognition of the Primacy of the International Space Law Treaties over the Space Protocol.

At the December 2003 UNIDROIT Governmental Experts meeting there was significant discussion of the basic operating principle that the existing space law treaties have primacy over the space protocol. The industry working group explained that the principle was implied in the protocol. Several Governmental delegates, asked that this acknowledgement also be inserted into the text of the Protocol. Consequently, the U.S. Delegation proposed the following language:[23]

"The Convention as applied to space assets does not affect State Party rights and obligations under the existing United Nations Outer Space Treaties or instruments of the International Telecommunications Union."

This language is a clear statement of the primacy of the international space treaties and the ITU instrument. It reflects the view of the industry working group that the space financing contracts registered under the Space Protocol are subject to existing public space law.

6 Safeguarding private satellite services that may be vital to national interest.

Satellite services are sometimes essential to national public safety and social order. For example the individual members of the International Telecommunications Union may suspend international telecommunication service of their national operators after due notice to ITU.[24] Furthermore, under the ITU Rules, states may require that emergency communications services continue to function to preserve the safety of life. States may also insert conditions to safeguard continuing services in the operating permit. Such conditions are imposed by public law, and financiers conclude financing agreements subject to these safeguards. This issue is of concern to several governments representative in the UNIDROIT committee of government experts. A proposal was made that a contracting state should be able to make a treaty reservation limiting transfer of space assets used for safety of life of life functions such as global navigation satellite systems, rescue and similar operations. [25] Financiers, who need to know the risks involved in a security

[21] For example U.S. - China memorandum of agreement on liability for satellite launches.. Dec.17, 1988, TIAS.

[22] See discussion of primacy below in Section III (B)(1)(c). Formal Recognition of the Primacy of the International Space Law Treaties

[23] Draft Protocol on Matters Specific to Space Assets, Art. XXI bis, Relationship with the United Nations Outer Space Treaties and Instruments of the International Telecommunication Union, www.unidroit.org

[24] ITU Constitution, Art. 35.

[25] See UNIDROIT 2004 study LXXIIJ – Doc. 13 rev., Art XVI. This proposal is bracketed and subject to further discussion.

interest, want such a limitation from remedies for default to be as narrow as possible. The governments want to protect basic safety services derived from satellites. Thus this is another critical issue in need of resolution.

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7.Is the operator's operating permit a legitimate space asset, if the owner's property rights cannot be transferred to a financier holding a security interest?

The operator's permit is often difficult to obtain. The Government issuing the license may by law have to conduct an examination of the operator to determine whether grant of the license is in the public interest. Subsequent transfer of the license requires another examination of whether a transfer is in the public interest. In fact the Government may disapprove any transfer of the operating permit. On the other hand the permit has value because it may be exclusive. For example only one operator can occupy an orbital slot. Another person will not be able to obtain an identical permit. The holder of a permit may expect income from its exclusivity and thus a bank may decide to finance the activity for which the operator is permitted. The bank will consider the permit to have value for. financing purposes. The operator may go bankrupt, but then the bank may be able to seize control of the operating permit (that is if the Government agrees).[26]

C. Conclusion

The space industry working group has drafted a space protocol establishing a legal framework for registry of secured interests in space assets. The basic idea for the legal system establishing an international registry and legal protection of secured assets on file in the registry has proved successful in aviation and will soon be tested in the rail mode. A window of opportunity now exists for extending this concept to space assets. Other international mobile assets such as automobiles and ships were left out of the 2001 Cape Town Convention on International Interests in Mobile Equipment. The question now is whether space asset financing should occur under a variety of state laws, or whether the field of space financing is best served by a private international law regime for private space commerce?

[26] Id.