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Future Protocol on Security Interests in Space Assets

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FUTURE PROTOCOL ON SECURITY INTERESTS IN SPACE ASSETS

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I. BACKGROUND

THE UNIDROIT preliminary draft Protocol on Matters Specific to Space Assets (Space Protocol) will establish an international regime to recognize and protect security interests in space assets.¹ The Uniform Commercial Code (UCC) in the United States is the closest analogy. The Space Protocol was drafted by a space industry working group under the chairman-

¹ Preliminary Draft Protocol on Matters Specific to Space Assets, UNIDROIT 2002, Study LXXIIJ, Doc. 10 (hereinafter Space Protocol); UNIDROIT's Charter, Mar. 15, 1940, 15 U.S.T. 2503 (entered into force Mar. 13, 1964). UNIDROIT is an international organization with 58 Member States. It is independent of the United Nations. It has a Governing Council, a President and a Secretariat. The purpose of UNIDROIT is to harmonize and coordinate the private law of States and to prepare for unification of private law. See Paul Larsen, Creditors' Secured Interests in Satellites, 34 COLLOQUIUM ON LAW OF OUTER SPACE, at 233 (1991); Paul B. Larsen & Juergen A. Heilbock, UNIDROIT Project on Security Interests: How the Project Affects Space Objects, 64 J. AIR L. & COM. 1 (1999); Martin Stanford, The Creation of a New International Regimen Governing the Taking of Security in Space Assets, Address at the 10th International Space Insurance Conference, London, July 8, 2002 (hereinafter Stanford Address).

ship of Peter D. Nesgos, a U.S. expert on space financing.² The industry working group now has handed the draft over to intergovernmental level because the Space Protocol must be ratified by governments.³

The main purposes of the Space Protocol are: (1) to expand the private market for financing; (2) to reduce the cost of financing; and (3) to streamline the entire financing process by establishing a set of uniform principles.⁴ The space industry needs a uniform international financing legal regime. Financing of space assets has changed significantly from the past predominance of government-sponsored activities to currently prevailing commercial projects. Private financing is only possible if laws exist to protect the interests of financiers and the beneficiaries of financing. Thus, the space industry is greatly interested in the Protocol.⁵

In the United States, private financing at the domestic level is protected by the UCC. There is no corresponding international regime. U.S. state law can be extended to govern financing of space assets on the international level, including outer space, but only in a cumbersome way that leaves many gaps (e.g., uncertainty about how to perfect and enforce an international security interest).⁶ The international regime would also protect the seller's interest when the seller holds a security interest or retains title to the space assets. It would also protect the interests of a lessor in an agreement to lease space assets.⁷ The Space Protocol will benefit not only financing of non-governmental or-

⁶ See Larsen & Heilbock, supra note 1.

² Peter D. Nesgos, Coordinator, Space Working Group. Mr. Nesgos is a partner with Milbank, Tweed, Hadley & McCloy, in New York .

³ UNIDROIT 2002, Study LXXIIJ, Doc. 11, at 12.

⁴ Lome Clark & Jeffrey Wool, Entry Into Force of Transactional Private Law Treaties Affecting Aviation: Case Study - Proposed UNIDROIT/ICAO Convention as Applied to Aircraft Equipment, 66 J. AIR L. & COM. 1403 (2001).

⁵ UNIDROIT Doc. 11, *supra* note 3. Thirty six experts representing intergovernmental and non-governmental organizations, aerospace companies, users of space assets, law firms, insurance companies, banks, manufacturers, academics attended the Rome 2002 meeting of the industry space working group.

⁷ See Convention on International Interests in Mobile Equipment, UN Doc. No. A/AC.105/C.2/2002/CRP.3 (Nov. 16, 2001) (hereinafter the Convention); UNIDROIT DCME Doc. No. 74, art. 2. Note that the remedies are different for conditional sellers and lessors than for chargees under security agreements. In the Convention the debtor is referred to as the chargor and the creditor is referred to as the chargee.

ganizations, but also private financing of government space assets. It may even apply to leases of military space assets.⁸

Legally, the Space Protocol will constitute private international law governing transactional relationships among private parties. It regulates private commercial activities such as transactions of sale and extensions of credit.9 The structure of the new legal regime is unusual. The basic Convention on International Interest in Mobile Objects (Convention) was negotiated at a diplomatic conference in Cape Town, South Africa in November 2001. The Convention is designed to have three Protocols: (1) the Protocol on International Interests in Mobile equipment on Matters Specific to Aircraft Equipment¹⁰ (Aircraft Protocol); (2) a Protocol on Matters Specific to Railway Rolling Stock¹¹ (Railway Protocol); and (3) a Protocol on Matters Specific to Space Assets.¹² The Aircraft Protocol was completed at the Cape Town Diplomatic Conference. The Railway and Space Protocols are being finalized. The Convention¹³ provides that UNIDROIT may initiate negotiations in the future to extend the application of the Convention to other kinds of high-value mobile equipment. Each Protocol requires a diplomatic conference for its adoption.¹⁴

⁹ Clark & Wool, supra note 4, at 1405.

¹⁰ Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment (hereinafter Aviation Protocol). The Convention, *supra* note 7, art. 3(3), establishes three categories: aircraft equipment, railroad rolling stock, and space assets. The Convention and the Aviation Protocol have been signed by many developing and developed States: Burundi, Chile, China, Rep. of the Congo, Cuba, Ethiopia, France, Ghana, Italy, Jamaica, Jordan, Kenya, Lesotho, Nigeria, Senegal, South Africa, Sudan, Switzerland, Tanzania, Tonga, Turkey and United Kingdom. The two instruments enjoy strong support in the United States; however, as of the time of writing the United States has not signed.

¹¹ Draft Protocol on Matters Specific to Railway Rolling Stock, UNIDROIT 2002, Study LXXIIH, Doc. 6. (hereinafter Railway Protocol)

¹⁴ UNIDROIT Doc. 11, supra note 3, at 6.

⁸ A good example of government lease of military equipment is the statutory authority in the DoD Appropriations Act of 2002. The Secretary of the U.S. Air Force may enter into multiyear aircraft leases with Boeing for 100 Boeing 767 aircraft and 4 Boeing 737 aircraft. The leases are subject to the customary terms of leases by non-government lessors to non-government lesses. A lease contract with Boeing, worth \$9.7 billion, was concluded on August 15, 2002. More lease contracts may be concluded. Pub. L. No. 107-117, 115 Stat. 2284, § 8159; *see \$9.7 Million U.S. Deal for Boeing C-17's*, N.Y. TIMES, Aug. 16, 2002, at C2.

¹² Space Protocol, *supra* note 1.

¹³ Convention, *supra* note 7, art. 51.

States may adopt one or several Protocols, according to their needs. The Convention establishes the primacy of the Protocols over the Convention.¹⁵ Further, each Protocol states that the Convention applies only as implemented in a particular Protocol.¹⁶ Therefore, states adopting a Protocol will only be bound by the basic Convention as specified in that particular Protocol. The Aviation Protocol, having been adopted first, had great influence on the basic Convention, which was adopted together with and in the context of the Aviation Protocol. Thus the Aviation Protocol serves as a model for the Railway and Space Protocols that are still being drafted. The preparatory work on all three Protocols was by industry working groups under the aegis of UNIDROIT. UNIDROIT wisely associated each Protocol with an international governmental organization that specializes in the subject matter of that particular Protocol. The preparation of the Aviation Protocol was in coordination with the International Civil Aviation Organization (ICAO);¹⁷ the Railway Protocol is being drafted in coordination with the Intergovernmental Organization for International Carriage by Rail (OTIF);¹⁸ drafting the Space Protocol involves the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS).¹⁹ The U.S. space industry is vigorously involved in the formulations of the

¹⁸ Railway Protocol, *supra* note 11.

- 1. 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 (hereinafter OST);
- Agreement on Rescue of Astronauts, the Return of Astronauts and the Return of Objects, Launched into Outer Space, 672 U.N.T.S. 1119 (hereinafter Rescue Convention);
- Convention on International Liability for Damage Caused by Space Objects, U.N. Treaties and Principles on Outer Space, 961 U.N.T.S. 18 (hereinafter Liability Convention);
- 4. Convention on Registration of Objects Launched into Outer Space, 1023 U.N.T.S. 15 (hereinafter Registration Convention); and
- 5. Agreement Governing Activities of States on the Moon and Other Celestial Bodies, 1363 U.N.T.S. 21 (hereinafter Moon Agreement).

¹⁵ Convention, *supra* note 9, art. 6.

¹⁶ Id.; Space Protocol, supra note 1, art. II.

¹⁷ Clark & Wool, *supra* note 4.

¹⁹ U.N. Committee on the Peaceful Uses of Outer Space (COPUOS), Report of the Legal Subcommittee on its forty-first session, held in Vienna, Austria, April 12-22, 2002. U.N. Doc No. A/AC.105/787, at 12 (hereinafter COPUOS Report). COPUOS is the U.N. forum in which the basic space law treaties were negotiated:

draft Space Protocol and the U.S. government has indicated its intention to participate actively in the negotiations.²⁰

A. 2001 Convention on International Interests in Mobile Equipment

As described above, the Space Protocol changes the Convention on International Interests in Mobile Equipment. Finalized at the Cape Town Diplomatic Conference in 2001, the Convention can now be described authoritatively. In reading the following thumbnail sketch of the Convention, it is important to keep in mind that the Convention and a particular Protocol must be read together, since they constitute one single instrument. In case of inconsistency, the Protocol prevails.²¹ Absent contrary provisions in the Protocol, the basic Convention applies to the subject matter of a specific Protocol. The Protocol specific to space assets will be described later in this article and will be linked to relevant provisions of the Convention.²² (Readers interested in aircraft equipment may read this sketch of the Convention together with the Aviation Protocol).

1. Scope of Application to International Interests

The scope of the Convention includes the U.S. system of financing security interests (regulated in the U.S. under the UCC), and the European financing system, under which the financier retains title until the loan is paid, as well as the leases.²³ These interests are defined by the Convention as *international interests*; only they are subject to the Convention.²⁴

2. Formal Requirements

An international interest must satisfy formal requirements, familiar to the UCC: it must be in writing, relate to an object over which the charger has right of disposal, be identified, and the secured obligation must be determined.²⁵

²⁰ Representatives of the State Department and the Federal Communications Commission participated actively in the meetings of the COPUOS meetings in Paris and Rome.

²¹ Convention, *supra* note 7.

²² See discussion of the Space Protocol in II below.

²³ Convention, *supra* note 7, art. 2.

²⁴ Note that the scope the Convention by its article 2(3) is limited to aviation, railway and space assets, so that only security agreements involving these three categories of assets are currently within the Convention's scope.

²⁵ Convention, supra note 7, art. 7.

3. Default Remedies

The Convention applies if a debtor is located in a Contracting State at the time of contracting.²⁶ If the debtor defaults, then the creditor has the following options: take possession or control of the assets, sell the assets or grant a lease, or collect income from the assets.²⁷ In the event of default, the creditor may obtain court assistance to preserve the assets, gain possession, lease or manage them.²⁸

4. International Registry

Like the UCC, the Convention, in conjunction with a Protocol, establishes registries for each of the three categories of assets: aviation, rail, and space. Unlike the UCC, the registries under the Convention are limited to international interests. Parties may undergo registration of international interests, assignment of interests, acquisition of interests, subordination of interests, and notices of national interests. Parties may also register extensions and discharges.²⁹

5. The Supervisory Authority and the Registrar

The Convention³⁰ creates a Supervisory Authority. The Authority's function is to establish the International Registry; appoint and terminate the Registrar; provide for continuity of the registry if the Registrar is dismissed; establish regulations for the operation of the registry; establish procedures for receipt of complaints about the registry; supervise the registry and guide the registrar; audit the registry (fees and facilities); ensure that an efficient notice-based electronic registration systems exists; and make regular reports to the contracting states.³¹

6. Regulation of International Interests

International interests may be registered by either party with the consent of the other party to the financing agreement.³² Searches of interests are made by electronic means.³³ The Reg-

²⁶ Id. art. 7.
²⁷ Id. art. 8.
²⁸ Id.
²⁹ Id. art. 16.
³⁰ Id. art. 17.
³¹ Id. art. 17(2).
³² Id. art. 20.
³³ Id. art. 22.

istrar may issue a search certificate containing all information regarding a specific project in the electronic register.³⁴ The registry is accessible to the public.³⁵

7. Liability of the Supervisory Authority and the Registrar

The Supervisory Authority enjoys immunity. Likewise, the Registry is immune from legal process.³⁶ The Registrar is liable for compensatory damages resulting from negligent acts or omissions of the Registrar and the Registrar's employees. Liability of the Registrar shall be covered by insurance.³⁷

8. Effect on Interests of Third Parties

Registration of an international interest establishes priority over later registrations and over unregistered interests.³⁸ The buyer and conditional buyer of an interest obtain the interest subject to existing registrations and free of unregistered interests.³⁹ Registered international interests are not affected by debtor's subsequent insolvency.⁴⁰

9. Assignment

Under the Convention, assignment transfers all the rights of the assignor to the assignee, unless otherwise agreed.⁴¹ A certain formality is required of an assignment. It must be in writing, and the obligations secured by the assignment must be identifiable. The assignment obligates the debtor to make payment to the assignee, if given notice in writing by the assignor.⁴²

10. Jurisdiction

The parties to a transaction may select the forum that shall have exclusive jurisdiction over any claim brought under the Convention, regardless of whether the chosen forum has any connection with the transaction or with the parties.⁴³ The

- 41 Id. art. 31.
- ⁴² Id. art. 33.
- 43 Id. art. 42.

³⁴ Id.

³⁵ *Id.* art. 26.

³⁶ *Id.* art. 27.

³⁷ *Id.* art. 40. ³⁸ *Id.* art. 29.

³⁰ *Id.* art ³⁹ *Id.*

⁴⁰ *Id.* art. 30.

courts at the location of the Registrar have exclusive jurisdiction to make orders against the Registrar.⁴⁴

11. Relationship to Other Conventions

The Convention supersedes the Convention on Assignment of Receivables in international trade. Protocols may decide that the Convention supersedes the UNIDROIT Convention on International Financial Leasing.⁴⁵

12. Final Clauses

The Convention is not yet in force. It enters into force when ratified by only three states; therefore, it could soon be in force. States may, at the time of ratification, state that the Convention shall not apply to that state's internal transaction.⁴⁶ At the time of ratification, contracting states are permitted a number of declarations restricting the application of the Convention in their states. Such declarations may be withdrawn at any time.⁴⁷ The Convention does not apply to preexisting interests, as they are governed by the applicable law preceding the Convention.⁴⁸ UNIDROIT is designated as the depositary of the Convention.⁴⁹

B. INFLUENCE OF THE AVIATION PROTOCOL ON SUBSEQUENT PROTOCOLS

The aviation industry readily seized the initiative to establish an international legal regime to support asset-based financing of aircraft equipment. This initiative is important for the future Space Protocol because many of the backers of the Aviation Protocol also produce, finance or purchase space materials. Thus, they appreciate the importance of such a legal regime.⁵⁰ The aviation industry working group was chaired by Jeffrey Wool, a partner in the law firm of Perkins & Coie, which historically has

⁴⁴ Id. art. 44.

⁴⁵ *Id.* arts. 45-46; *see* Diplomatic Conference for the Adoption of the Draft, UNIDROIT Convention on International Factoring and International Financial Leasing: Final Act and Text of Two Conventions, 27 I.L.M. 922 (1988) (hereinafter Financial Leasing Convention).

⁴⁶ Convention, *supra* note 7, arts. 49, 50. However, note that the Aviation Protocol, *supra* note 10, art. XXVIII requires eight ratifications for entry into force. ⁴⁷ Convention, *supra* note 7, art. 58.

⁴⁸ *Id.* art. 60.

⁴⁹ *Id.* UNIDROIT, as depositary, will have administrative oversight over the Convention and its Protocols.

⁵⁰ Clark & Wool, *supra* note 4, at 1408.

had close links to Boeing. Active participants in the international aviation working group were manufacturers like Boeing. Snecma, and General Electric, and financial institutions like Chase Manhattan, International Lease Finance Corporation, and Kreditanstalt fuer Wiederaufbau. The working group was strongly supported by the members of the International Air Transport Association (IATA).⁵¹ The working group prepared a draft protocol that became the subject of governmental negotiations sponsored by UNIDROIT and by the International Civil Aviation Organization (ICAO). They agreed to hold a diplomatic conference in Cape Town, South Africa in November 2001. The Cape Town Conference became important for Protocols on the other subjects because that conference negotiated and adopted the basic Convention for all the subjects. That is, when the conference adopted the Convention on International Interests in Mobile Equipment as applied to aircraft objects, it became the basic Convention.⁵²

The Aviation Protocol defines the scope of the applying the Protocol.⁵³ It provides default remedies, priorities, and assignments;⁵⁴ registry provisions relating to international interests in aircraft objects; and jurisdiction.⁵⁵ The Aviation Protocol supersedes the 1948 Geneva Convention on the International Recognition of Rights in Aircraft, the 1933 Convention for Unification of Certain Rules Relating to the Precautionary Attachment of Aircraft, and the UNIDROIT Convention on International Financial Leasing relating to aircraft objects.⁵⁶ It requires eight ratifications for entry into force.⁵⁷ Not only is the Aviation Protocol a convenient model for the Space Protocol, but the aviation industry gave early encouragement to the space industry working group. In spite of the coincidence of interest, joining the Aviation and Space Protocols into one is only a remote possi-

⁵¹ Id. Mr. Clark is General Counsel for the International Air Transport Association (IATA).

⁵² See Convention, supra note 7; Aviation Protocol, supra note 10.

⁵³ Aviation Protocol, supra note 10, Ch. I.

⁵⁴ Id. Ch. II.

⁵⁵ Id. Ch. IV.

⁵⁶ Convention on the International Recognition of Rights in Aircraft, June 19, 1948, 4 U.S.T. 1830, 310 U.N.T.S. 152; Convention for the Unification of Certain Rules Relating to the Precautionary Attachment of Aircraft; Financial Leasing Convention, *supra* note 45.

⁵⁷ Aviation Protocol, supra note 10, art. XXVIII.

bility at this time.⁵⁸ Such joinder could slow down the entry into force of the Aviation Protocol.

C. SPACE INDUSTRY WORKING GROUP

In 1997, Peter D. Nesgos, expert in international space finance matters, was invited by the President of UNIDROIT to organize and chair a working group to prepare a preliminary draft Protocol on matters specific to space assets. The working group held five meetings. It met in Rome at UNIDROIT, at Boeing Capital Corporation headquarters in Long Beach, California, and at the Arianespace headquarters in Evry, France, near Paris.⁵⁹ At the January 2002 meeting of the working group, thirty-seven participants attended from banks, aerospace manufacturers, insurance companies, law firms, international organizations, and academia.⁶⁰ The draft Space Protocol produced by the working group was formally submitted to UNIDROIT. The UNIDROIT Council has authorized the President to turn the

⁶⁰ Space Protocol, *supra* note 1:

The Space Working Group brought together representatives of manufacturers, financiers, insurers and users of space assets as also of the interested international Organizations. It brought together expertise from Australia, Colombia, France, German, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States of America and from such major players in the world aerospace industry and financial and insurance communities as Alcatel, Alenia Spazio, ANZ Investment Bank, Argent Group Arianespace, Assicurazioni Generali, Astrium, BNP, Paribas, the Boeing Company, Credit Lyonnais, Deutsche Morgan Greenfell, DirectTV, EADS, FiatAvio, GE American Communications, Hughes Electronics Corporation, Hughes Space & Communications Company, ING Lease International Equipment Finance, Lockheed Martin Finance Corporation, Lockheed Martin Global Telecommunications, the Long Term Credit Bank of Japan, the Mitsubishi Trust and Banking Corporation. Motorola Satellite Communications Group, PanamSat, La Reunion Spatiale, Space Systems/Loral, SpaceVest and TelecomItalia.

The Space Working Group also had participation from Eurocontrol, ESA, International Mobile Satellite Organization, INTELSAT, COPUOS, European Centre for Space Law, the International Bar Association, the International Institute of Space Law, The Aviation Working Group. CNES, German Space Agency, and the Russian Aviation and Space Agency.

⁵⁸ Reopening the Aviation Protocol negotiations after the Cape Town diplomatic conference would be difficult. For discussion of the Aviation Protocol negotiations, *see* Clark & Wool, *supra* note 4.

⁵⁹ UNIDROIT Doc. 11, *supra* note 3. The Space Protocol is intended to serve the space industry. Thus the space industry working group continues to be vital in guiding the governments to a viable legal regime for the financing of space assets. *See* Stanford, *supra* note 1.

text over to the UNIDROIT governmental experts working group, which will examine it prior to final submission to a diplomatic conference. Industry representatives will assist in the final drafting process.⁶¹

The space industry working group entered into a new phase after it transmitted the draft Protocol to UNIDROIT. The actual drafting of the legal regime will then be by the governmental experts, who may seek the counsel of individual industry experts. In its new phase, the working group is encouraged to engage in a "global effort to educate" public and private interested parties. The working group also agreed to pool financial resources in order to promote the Space Protocol during the period of its formation.⁶²

In view of the special interest of COPUOS, the space industry working group undertook a careful study of the interaction between the existing space law treaties and the Space Protocol. It reviewed the scope of the Protocol, its registry of international interests, the Supervisory Authority of the registry, possible issues under the Convention on International Liability for Damage Caused by Space Objects, jurisdictional issues, and ITU law. The working group concluded that the preliminary draft Space Protocol is consistent with the existing space law treaties. Furthermore, the group believes that the United Nations Charter permits the United Nations to serve as the Supervisory Authority for the Registry.⁶³

D. THE UNITED NATIONS COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

In 2001, the COPUOS Legal Subcommittee⁶⁴ established an *ad hoc* consultative group on the Convention on International Interests in Mobile Equipment and on the draft Protocol on Matters Specific to Space Assets. The COPUOS consultative group met in Paris, in September 2001, and in Rome, in January 2002. The group specifically examined the interaction between the existing space law and the Space Protocol. At the end of its

⁶¹ Report of the Steering and Revisions Committee for the Consideration of the Preliminary Draft Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets, UNIDROIT 2002, Study LXXIIJ, Doc. 12; *see* Stanford, *supra* note 1.

⁶² UNIDROIT Doc. 11, supra note 3, at 12.

⁶³ See Paul B. Larsen, UNIDROIT Draft Space Protocol, 44 IISL Colloquium on Law of Outer Space (2001).

⁶⁴ COPUOS Report, *supra* note 19, at 12.

examination, the group adopted the following conclusions that were considered by the Legal Subcommittee at its 41st Session in Vienna during April of 2002:⁶⁵

- 1. The Space Protocol is an important economic initiative benefiting both developing and developed countries.
- 2. The Space Protocol involves interaction of public and private space activities.
- 3. Existing public space law treaties provide the larger framework within which the Space Protocol should be developed. The text of the Space Protocol should contain language indicating respect for the U.N. space law treaties.
- 4. Interaction of the Space Protocol and the ITU basic instruments may require further study.
- 5. Interaction of the Space Protocol, the national licensing regimes, space laws, issues relating to national supervision, and liability for space activities should be studied further.
- 6. The Space Protocol's effect on the financing of public use and dual use space assets should be studied further.
- 7. The Protocol's registry of international interests in space assets should be supervised by an intergovernmental organization.
- 8. The function of the Registrar should be performed by a private contractor.
- 9. The possibility of the United Nations serving as Supervisory Authority should be explored further.
- 10. United Nations' service as Supervisory Authority should be conditioned on adequate funding.
- 11. States that are members of COPUOS are encouraged to follow and to participate in the implementation and development of the Cape Town Convention on International Interests in Mobile Equipment as applied to aircraft objects.
- 12. UNIDROIT should reach beyond its membership of States and should invite all COPUOS member states to participate in negotiation of the Space Protocol.⁶⁶

⁶⁵ Id. at 24.

⁶⁶ *Id.*; *see* Larsen & Heilbock, *supra* note 1, at 721. UNIDROIT has 58 Member States. Not all the Members of the United Nations are members of UNIDROIT, however, UNIDROIT is agreeable to invite nonmembers to participate in the negotiations of the Space Protocol.

13. The Legal Subcommittee was encouraged to retain the subject on its agenda beyond 2002.⁶⁷

While the COPUOS ad hoc consultative group recommended that these matters be explored further, any new work may be shared by COPUOS and by UNIDROIT, because the expertise of the COPUOS Legal Subcommittee is generally in the area of public space law rather than the private law governing contracts. the proper function and expertise Private law is of UNIDROIT.⁶⁸ Duplication of work by the two organizations would not only be inefficient, it could lead to conflict and possible deadlock. Appropriately, the COPUOS Legal Subcommittee decided to limit the focus of its future discussion to the following: "(a) Considerations relating to the possibility of the United Nations serving as a Supervisory Authority under the preliminary draft protocol; (b) Considerations relating to the relationship between the terms of the preliminary draft protocol and the rights and obligations of States under the legal regime applicable to outer space."69

The COPUOS Legal Subcommittee plans to establish a working group to consider these two issues separately.⁷⁰ The Subcommittee also requested the U.N. Office on Outer Space Affairs (OOSA) to consult with the U.N. Legal Counsel on whether the United Nations has legal authority to act as Supervisory Authority.⁷¹ Clearly, the Legal Subcommittee is of the view that the Space Protocol is the most exciting current development in space law. The United Nations and COPUOS now have the opportunity to remain relevant by assuming a role as Supervisory Authority under the Space Protocol.

The United Nations COPUS appears to intend limiting its focus to the two areas identified by its Legal Subcommittee. Thus the intergovernmental consultation process will be going forward under the auspices of UNIDROIT alone, but COPUOS will assist by looking into the possibility of the United Nations serving as Supervisory Authority of the Registrar and by continuing to consider those aspects of the preliminary draft Protocol hav-

⁶⁷ See COPUOS Report, supra note 19, at 25. COPUOS decided to keep the subject on the agenda.

⁶⁸ The United Nations Commission for International Trade Law (UNCITRAL) also specializes in private international law.

⁶⁹ See COPUOS Report, supra note 19, at 18.

⁷⁰ Id.

⁷¹ Id.

ing an impact on the rights and obligations of States under international space law.⁷²

II. CRITICAL ISSUES IN THE SPACE PROTOCOL

The objective of the Space Protocol is to create a document that will protect financiers, giving them confidence to loan money for space ventures. It is in their interest that the Protocol be as sweeping as possible without ambiguous exceptions that will cause doubt whether they are adequately protected. A Protocol that has many exceptions and reservations creates uncertainty in the minds of financiers about the risks of financing. The Protocol also must be simple, certain, and easily understood in order to be workable. For example, an open-ended blanket treaty provision that the Protocol is subject to, and subservient to, existing space law might incorporate public international law extraneous to the private law purposes of the Protocol. If those public law provisions contain ambiguities, they could create uncertainty for private investors about the scope of legal protection for their assets. The space working group was conscious that this could undermine the intended uniformity and predictability of the Protocol's legal regime. The working group thought it essential that the Protocol advance and increase the confidence and feeling of security of financiers.73

The Space Protocol, like the Aviation Protocol, is based on private international law governing the relationships among private parties. To understand the Space Protocol provisions, it helps to read the corresponding provisions in the Aviation Protocol.⁷⁴ This will be even more important as practical experience and case law develop under the Aviation Protocol. The establishment of a Supervisory Authority and Registry under the Aviation Protocol will have particular value as a precedent for the Space Protocol's similar arrangement.⁷⁵

⁷² See id.

⁷³ UNIDROIT Doc. 11, supra note 3, at 9.

⁷⁴ Aviation Protocol, *supra* note 10.

⁷⁵ Space Protocol, supra note 1, Ch. III.

A. COEXISTENCE OF THE SPACE PROTOCOL WITH SPACE LAW TREATIES

The Outer Space Treaty (OST)⁷⁶ obligates states parties to ensure that national activities in outer space, whether they are governmental or nongovernmental, be performed in compliance with the provisions of the treaty. Furthermore, OST, Article IX, obligates states to conduct their outer space activities "with due regard to the corresponding interests of all other States Parties to the Treaty." If States' activities in outer space may cause harmful interference with the activities of other States, then they must consult with other States before proceeding.⁷⁷ The States Parties must supervise private activities of their nationals in outer space for compliance.⁷⁸ Consequently, in order to respect existing space law, all interested parties must agree on a governing principle of having no conflicts between public law space treaties and the private law Space Protocol.⁷⁹ This principle is incorporated in the text of the Protocol. Its preamble recognizes "the established principles of space law, including those contained in the international space treaties under the auspices of the United Nations."80 Acceptance of the no-conflicts principle arose out of a study by a special industry working group that examined the existing space law and did not find any conflicts with the current draft of the Space Protocol.⁸¹ The COPUOS Consultative Group agreed with the no conflicts principle and recommended "that appropriate language should be incorporated within the text of the space protocol to the extent necessary to ensure the integrity and respect for the rights and obligations of States in accordance with those principles."82 In his address to the working group, Professor Kopal, the chairman of the Legal Subcommittee, stressed the importance of this principle in saying, "the nature of the relationship between the two regimes needed to be clarified expressly in the text of the preliminary draft Protocol, at least in the preamble thereto."83

- ⁷⁹ See COPUOS Report, supra note 19.
- ⁸⁰ Space Protocol, *supra* note 1, Preamble.
- ⁸¹ Id.
- ⁸² COPUOS Report, *supra* note 19, at 24.
- 83 UNIDROIT Doc. 11, supra note 3, at 7.

⁷⁶ OST, *supra* note 19, art VI.

⁷⁷ Id.

⁷⁸ Id. art. VI.

B. DEFINITION OF SPACE ASSETS

The Space Protocol regulates space assets.⁸⁴ Its definition of space assets is very broad in order to afford all assets in a space project protection by the Protocol. It includes property that has been launched into outer space, manufactured in outer space, and property that has been returned from space. The definition includes space assets on Earth intended for launch into outer space, intangible rights to control satellites, contractual rights, proceeds and revenues, and other rights yet to be established. The Protocol's scope also includes debtor's rights to payments or performance under agreements secured by or associated with space assets. These associated rights⁸⁵ include permits; licenses; authorizations or equivalent instruments granted or issued by national or intergovernmental bodies including authorities to control, use, or operate space assets; and authorizations to use orbital positions, transmission and reception of radio signals from or to space assets. In each case, "to the extent permissible and assignable under the laws concerned."⁸⁶ In addition, the associated rights include rights to payments or other performance due a debtor by a person relating to space assets, and a debtor's contractual rights secured by or associated with such space assets.⁸⁷

The Protocol's definition of space assets is broader than the definition of space objects in the space law treaties.⁸⁸ "Space object" concerns property that has been launched into outer space, whereas "space assets" include property on the surface of the Earth.⁸⁹ Is consistency of the Protocol's definition with the existing international space law's definition necessary? This is

⁸⁴ Space Protocol, *supra* note1, art. 1.

⁸⁵ Id.

⁸⁶ Id.

⁸⁷ "Associated rights" means:

⁽i) any permit, license, authorization or equivalent instrument that is granted or issued by a national or intergovernmental or other international body or authority to control, use or operate a space asset, relating to the use of orbital positions and the transmission, emission or reception of radio signals to and from a space asset, which may be transferred or assigned , to the extent permissible and assignable under the laws concerned; (ii) all rights to payment or other performance due to a debtor by any person with respect to space assets; and (iii) all contractual rights held by a debtor that are secured by or associated with the space assets.

⁸⁸ Registration Convention, *supra* note 19, art. 1.

⁸⁹ Space Protocol, *supra* note 1, art. I.

an important question because all the space law conventions concern space objects.⁹⁰ For example, the Registration Convention, article II, mandates registration of space objects. Registration identifies the state that has jurisdiction and control over the object; thus registration has bearing on ownership of the space object.⁹¹ Consistency of the definition of "space object" with "space asset" is probably not necessary because the Protocol's purpose differs from the purpose of existing space law. The Protocol is concerned primarily with private law and with the protection of financiers who enter into private law contracts, whereas the existing space law is primarily public law. However, the broader definition of space assets has the consequence that some space assets are not subject to the international space law treaties because they are not defined as space objects.⁹²

C. The Registry

The registry of financial interests is visualized as a computer bank that is accessible by computer. The registry will be open on a 24 hour basis so that it can be electronically accessed and searched at any time from anywhere in the world.⁹³ The Space Protocol will not only establish a registry for space assets that is separate from aviation equipment, it will also establish a registry that is separate from the current U.N. registry established under the Registration Convention.⁹⁴ Establishment of a separate registry for space assets would have several advantages. Several space-faring countries, including the United States, support the principle that existing space law treaties should not be changed by the Space Protocol.⁹⁵ Use of the current U.N. Registry to register international interests might require amendment of the Registration Convention, whereas a separate Protocol registry would satisfy the principle of no change to existing space law. Nevertheless, the separate registries could still provide a limited identification link between the two registries.⁹⁶

⁹⁰ All the space law treaties, *supra* note 19, refer to space "objects."

⁹¹ See OST, supra note 19, art. VIII.

⁹² See definition of space assets in Space Protocol, supra note1, art I.

⁹³ *Id.* art. XIX. The act of registration notifies the public of the existence of the security interests in space assets and of the priorities of creditors' interests.

⁹⁴ Registration Convention, *supra* note 19, art III.

⁹⁵ COPUOS Report, *supra* note 19. U.S. Delegation statements during discussion in COPUOS experts group.

⁹⁶ Id. at 15.

Persuasive argument for separate registries is that the Space Protocol and Registration Convention registries serve different purposes. The Protocol's registration is by individual company, whereas the Registration Convention's registration is by States.⁹⁷ Secondly, the purpose of the Space Protocol is to regulate the relationship between creditors and debtors, whereas the Registration Convention's purpose is to determine which State has jurisdiction and control over space objects.⁹⁸ Furthermore, as mentioned above,⁹⁹ the scope of the Registration Convention is narrower than that of the Protocol. Therefore, the space working group, as indicated in the Space Protocol,¹⁰⁰ favors a Protocol registry that is separate from the Registration Convention's registry, perhaps operated by a private contractor, under the supervision of the Supervisory Authority. Equipment must be identifiable for the purpose of registration. The Space Protocol, influenced by the Aviation Protocol, favors use of the manufacturer's name or serial number, and model description and the intended location of the space asset.¹⁰¹ Parts of space assets may be registered separately and several different modes of registration are contemplated. The space working group agreed that multiple search criteria would enhance the reliability of searches in the computerized data base.¹⁰²

The Supervisory Authority will appoint and dismiss the Registrar.¹⁰³ All liability of the Registrar shall be covered by liability insurance or by a financial guarantee as directed by the Supervisory Authority.¹⁰⁴

D. THE SUPERVISORY AUTHORITY

Article 17 of the Convention would create a Supervisory Authority to appoint and supervise the Registrar, provide for continuity of the Registry and perform several administrative functions.¹⁰⁵ The Space Protocol provides that the Authority

⁹⁷ Registration Convention, *supra* note 19, art. II. Launching States shall register space objects. *Id*.

⁹⁸ Id. art. II.

⁹⁹ Id. art. I.

¹⁰⁰ Space Protocol, *supra* note 1; *see also* UNIDROIT Doc. 11, *supra* note 3.

¹⁰¹ Space Protocol, *supra* note 1, art. VII. Note that the Registry is based on registration of assets rather than on registration of debtors.

¹⁰² UNIDROIT Doc. 11, *supra* note 3, at 9.

¹⁰³ Convention, *supra* note 7, art. 17 (2)(b).

¹⁰⁴ Id. art. 28 (4); Space Protocol, *supra* note 1, art. XIX. The Registrar will be liable for negligent record keeping.

¹⁰⁵ Convention, *supra* note 7, art. 17.

will be appointed by the diplomatic conference.¹⁰⁶ Furthermore, the Supervisory Authority shall be immune from legal and administrative process.¹⁰⁷ A commission of experts, to be nominated by the States, may be appointed by the Authority to assist the Authority with its duties.¹⁰⁸ The Supervisory Authority may adopt regulations placing in special escrow the command codes for access and control of space assets.¹⁰⁹

Full reimbursement of all the Supervisory Authority's expenses will be essential to its function.¹¹⁰ Thus all the cost of the Supervisory Authority relating to appointing, supervising and regulating the Registrar will be recovered from the fees charged for use of the registry's facilities and services.¹¹¹

The Supervisory Authority under the Space Protocol has not yet been finally identified. UNIDROIT has approached the United Nations, which has indicated interest.¹¹² COPUOS asked for guidance from the U.N. Legal Counsel about whether the United Nations can serve as Supervisory Authority.¹¹³ However, other intergovernmental organizations are also interested in serving as Supervisory Authority.¹¹⁴ Service of the United Nations or another intergovernmental organization as Supervisory Authority would not change the basic nature of the Space Protocol as being "a transactional private law treaty." As Loren Clark and Jeffrey Wool point out, the involvement by an intergovernmental organization would be merely incidental to the core purpose of the Protocol.¹¹⁵

E. LIABILITY ISSUES

The COPUOS consultative group is of the view that the effect of the Space Protocol on liability for space activities should be studied.¹¹⁶ At issue is examination of the interaction between the Space Protocol and Articles II and III of the Liability Convention.¹¹⁷ Article II makes the launching State absolutely liable

¹⁰⁶ Space Protocol, *supra* note 1, art. XVII.

¹⁰⁷ Convention, supra note 9, art. 27.

¹⁰⁸ Space Protocol, *supra* note 1, art. XVII.

¹⁰⁹ Id. art. 17(4).

¹¹⁰ COPUOS Report, *supra* note 19, at 15.

¹¹¹ Convention, *supra* note 9, art.17(2); Space Protocol, *supra* note 1, art XIX.

¹¹² Id.; UNIDROIT Doc. 11, supra note 3, at 6.

¹¹³ COPUOS Report, *supra* note 19, at 18.

¹¹⁴ UNIDROIT Doc. 10, *supra* note 14, at xv.

¹¹⁵ Clark & Wool, supra note 4, at 1407.

¹¹⁶ COPUOS Report, *supra* note 19, at 14.

¹¹⁷ Space Protocol, *supra* note 1; Liability Convention, *supra* note 19.

for damage caused by its space objects on the Earth's surface and to aircraft in flight.¹¹⁸ Article III makes the launching state liable for damage to space objects caused by its negligence in outer space.¹¹⁹ The question is how can the launching state maintain oversight and control over a space object if the object has been transferred to creditors who are located in another State and subject to its jurisdiction? Such transfer to creditors in another State could take place if the financier, in accordance with his rights and remedies under the Convention, Article 8, takes physical or constructive possession of space objects that they have financed. Suppose the financier decides to operate the space object and the space object causes surface damage or damage in outer space. The launching state could be liable under the Liability Convention. The launching state would then try to seek recourse from the operator (financier) who might be located in another country, and it might be difficult to hold the operator responsible. Such recourse action would not be based on the Liability Convention, nor on the Space Protocol, but could be based a separate agreement among States, or on specific local law, or on assumption of liability.¹²⁰

Because the Liability Convention holds the launching state liable, this brings into issue the Convention's definition of launching state as "a State which launches or procures the launching of a space object; a State from whose territory or facility a space object is launched."¹²¹ The space law treaties, including the Liability Convention, were drafted at the time when Governments conducted most space activities.¹²² The Liability Convention implies government operation. The Convention's drafters did not provide for individual liability of private satellite operators when the space assets had been transferred, whether

¹²⁰ Liability could be based on: bilateral agreements under which another state assumes all liability of a launching state; statutory law of a State or on its law of Torts; assumption of liability either through the finance agreement or if the permitting authority required that the financier as receiver of title assumed liability.

¹²¹ Liability Convention, *supra* note 19, art. I.

¹²² The Liability Convention was finalized in 1972. All the space law treaties, *supra* note 19, were negotiated between 1967 and 1979.

¹¹⁸ Liability Convention, *supra* note 19, art. II: "A launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft flight."

¹¹⁹ *Id.* art III ("In the event of damage being caused elsewhere than on the surface of the Earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible.").

by sale, lease, or secured financing, to private operators in countries that are not launching states.¹²³ Nevertheless, the Space Protocol can work in tandem with the Liability Convention. The Protocol requires that the name of the financier having financial interests in space assets be listed in the Space Protocol's registry.¹²⁴ States will benefit from the enhanced transparency resulting from the existence of and access to the registry to be established under the Space Protocol. States will better be able to assess their potential liability under the Liability Convention and their supervisory functions under article VI of the Outer Space Treaty.¹²⁵ Consequently, the liability of the launching state under the Liability Convention does not appear to be undermined by the Space Protocol.

The problem is with the Liability Convention's definition of "launching State."¹²⁶ The COPUOS Legal Subcommittee previously established a special working group on the problem of "launching State."¹²⁷ That working group is particularly concerned with improving the application of the Liability and Registration Conventions.¹²⁸ The COPUOS Legal Subcommittee established a three-year work plan on the definition of "launching State."¹²⁹ However, some COPUOS member States noted that the definition of "launching State" has not caused any current problem and "that governmental and private launches were occurring on a regular basis and were able to proceed with the support of private insurance."¹³⁰

Regarding the liability of the Supervisory Authority and the Registrar for negligent acts or omissions in performance of their duties, the Convention¹³¹ provides for immunity of the Supervi-

¹²³ Liability Convention, *supra* note 19. Only launching States are liable under the Liability Convention. References to States may include international intergovernmental organizations if they accept rights and obligations under the Liability Convention. *See id.* art. XXII.

¹²⁴ Space Protocol, *supra* note 1, art VII. Identification of space assets in the Registry shall include the name of the debtor and the creditor, their addresses, description of the space assets, date and location of launch, and description of separately identifiable component parts.

¹²⁵ OST, supra note 19, art. VI.

¹²⁶ Liability Convention, *supra* note 19, art. I.

¹²⁷ COPUOS Report, *supra* note 19, at 16.

¹²⁸ *Id.* at 26. Chairman of the COPUOS special working group on "launching State" is Mr. Kai-Uwe Schrogl of Germany.

¹²⁹ Id. at 16.

¹³⁰ Id.

¹³¹ Convention, *supra* note 7, art. 27.

sory Authority,¹³² and provides that the Registrar may buy insurance to cover the Registrar's liability.¹³³ The Space Protocol reinforces these protections from liability.¹³⁴

F. JURISDICTION

The Convention permits the parties to a finance contract to choose the exclusive forum to adjudicate disputes arising under the contract.¹³⁵ The chosen forum does not need to have a connection with the transaction or with the parties. The chosen forum has jurisdiction to grant temporary relief in order to preserve the space asset, to repossess it, or immobilize it.¹³⁶ The Space Protocol Article XX confirms that the waiver of sovereign immunity from the jurisdiction of the court specified in the Convention or regarding enforcement under the Convention is binding and shall confer jurisdiction and allow enforcement.¹³⁷

The contractual freedom to choose a forum may be contrasted with the Outer Space Treaty, Article VIII.¹³⁸ The Article states that "[a] State Party to the Treaty on whose registry an object is launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body."

Article VIII governs State responsibility. It does not govern private party rights. Private parties may, under the Convention and the Space Protocol, agree to change the national jurisdictional rules that govern a contract.¹³⁹ The contractual objective will normally be for the debtor seeking to stipulate that disputes be settled in an impartial forum.

Finally, the Convention provides that the courts of the place where the registrar is located shall have jurisdiction to issue orders against the Registrar and to award damages.¹⁴⁰

¹³² *Id.*; Space Protocol, *supra* note 1, art. XVII; *see* text accompanying *supra* note 105.

¹³³ Convention, *supra* note 7, art. 28.

¹³⁴ Space Protocol, *supra* note 1, art. XIX.

¹³⁵ Convention, *supra* note 7, art. 42.

¹³⁶ Id. art. 43.

¹³⁷ Id. arts. 42, 43.

¹³⁸ OST, *supra* note 19, art. VIII.

¹³⁹ Convention, *supra* note 7, arts. 42 and 43; Space Protocol, *supra* note 1, art. XVII.

¹⁴⁰ Convention, supra note 7, art. 44.

G. CHOICE OF LAW

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The Space Protocol¹⁴¹ provides that the parties to a financing agreement or contract of sale may agree on the law that shall govern the contract. The law chosen by the parties would be the domestic law of the designated state.

H. SPACE PROTOCOL INTERACTION WITH ITU INTERNATIONAL LAW AND REGULATIONS

The COPUOS Legal Subcommittee focused on the interaction of the Space Protocol with the Constitution, Convention and Radio Regulations of the International Telecommunication Union (ITU), in particular, on treaty obligations in the situation when space assets are transferred from one country to another.¹⁴² Some COPUOS delegates wish to have more active ITU participation in this discussion.¹⁴³ Examples of Space Protocol interaction with the ITU legal instruments are the general provisions under the ITU Constitution¹⁴⁴ that give the ITU Member States the right to terminate illegal radio transmissions.¹⁴⁵ ITU Member States may suspend international telecommunication service after due notice to ITU.¹⁴⁶ The space working group's view is that there is no conflict with the ITU legal instruments because the operators of communication satellites and the financiers take possession of those satellites subject to ITU's established priority of telecommunications on safety of life.147

Fortunately, ITU participated actively in the space industry working group through its former ITU General Counsel, Alfons A. E. Noll.¹⁴⁸ Furthermore, UNIDROIT sent a formal request to the Secretary General of ITU asking ITU to study the relationship between the Space Protocol and the ITU instruments. ITU responded that the Space Protocol does not contradict the ITU

¹⁴¹ Space Protocol, *supra* note 1, art. VIII.

¹⁴² ITU Constitution, Project 2001, Legal Framework for the Commercial Use of Outer Space (Satellite Communications), June 8-9, 2000, Berlin, Germany, at 314-16.

¹⁴³ COPUOS Report, *supra* note 19, at 14.

¹⁴⁴ ITU Constitution, *supra* note 142, arts. 33-48.

¹⁴⁵ Id. art 34.

¹⁴⁶ Id. art 35. The ITU requires radio stations to have a license.

¹⁴⁷ See Larsen, supra note 63.

¹⁴⁸ UNIDROIT Doc. 11, *supra* note 3, at 3.

instruments, nor does the Protocol overlap with these instruments.¹⁴⁹

The reasons for ITU's absence of concern with the Space Protocol relate to its view of the Protocol's private law regulation of the contractual rights of financiers and debtors. In ITU's view the Protocol does not regulate or supersede the public law regulatory functions of ITU. Financiers and debtors are very conscious of the importance of satellite operators complying with the ITU legal instruments when they enter into financing or lease contracts. The parties conclude their financing contracts expecting compliance by the satellite operators with applicable governmental authorizations, including existing ITU rules and regulations. They accept that the ITU laws and regulations regulate the legal use of radio frequencies and orbital locations.¹⁵⁰

III. INTERACTION OF THE SPACE PROTOCOL WITH NATIONAL LAWS

A. LIMITATIONS ON TRANSFERS OF CONTROLLED SPACE ASSETS

Many space assets, for example communication, navigation, and remote sensing satellites, are dual use. That is, they can serve both military and civilian uses. Therefore, the transfers of space assets from one operator to another operator often are controlled by governments that restrict transfers for national security, law enforcement, safety, or other public law policy reasons. Thus the Space Protocol permits States that have made a declaration¹⁵¹ reserving their right to limit default remedies to restrict and attach limitations on default remedies given to creditors from other Contracting States under the Convention and the Protocol.¹⁵² The Space Protocol¹⁵³ provides that Contacting States "in accordance with its laws," can place restrictions or conditions on the financier's available remedies regarding controlled space assets, or involving transfers or assignments of associated rights. Some members of the space industry working group support even further restrictions on transfer of controlled

¹⁴⁹ UNIDROIT Study LXXIIJ, S.W.G., 4th Sess., W.P. 3 (2001); *see also* Larsen, *supra* note 63.

¹⁵⁰ UNIDROIT Study LXXIIJ, supra note 149.

¹⁵¹ Space Protocol, *supra* note 1, art. XXVI(1).

¹⁵² Convention, supra note 7, Ch. III; Space Protocol, supra note 1, Ch. II.

¹⁵³ Space Protocol, *supra* note 1, art. XVI.

and restricted space assets and on assignment and transfer of regulatory licenses and permits issued by public authorities.¹⁵⁴

This restriction on transfer of controlled space assets is particularly important for the United States, which classifies many space assets as munitions and subject to Arms Control and Export Controls. The 1998 National Defense Authorization Act provided that " it is in the national security interests of the United States that United States satellites and related items be subject to the same export controls that apply under United States law and practices to munitions."¹⁵⁵ The Act placed all satellites and related items on the Department of Commerce list of dual use items in the Export Administration Regulations,¹⁵⁶ on the U.S. Munitions List, and subject to control of the Arms Export Control Act.¹⁵⁷ The U.S. Department of State regulates and administers this part of the Arms Export Control Act.¹⁵⁸ Many space assets are on the United States Munitions List.¹⁵⁹

Recent U.S. space policy studies on "Preserving America's Strength in Satellite Technology" by the Center for Strategic and International Studies (CSIS), April 2002, noted that the

¹⁵⁸ 22 C.F.R. part 120-130; *see also* Federal Communication Commission (FCC) licensing *infra* notes 162-163. The FCC tends to defer to other U.S. agencies on matters of national security, law enforcement, foreign policy, and trade considerations. In some FCC cases, the U.S. Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI) have raised national security, law enforcement, and public safety concerns regarding license applications and transactions with significant foreign investment, ownership, or foreign facilities. In some cases, the DOJ and the FBI have resolved concerns by entering into separate agreements with applicants. At the request of these agencies, licensee compliance with the agreements is a condition for the FCC license.

¹⁵⁹ The United States Munitions List, 22 C.F.R. § 121. Many countries, including the United States and Russia, are also parties to the Wassenaar Agreement, which obligates Member States to notify its members when arms are transferred. *See* U.S. Dep't of Commerce, Wassenaar Arrangement, *available at* http:// www.bis.doc.gov/Wassenaar/default.htm (last visited Nov. 26, 2002). States must adopt domestic regulation of arms transfers. Space assets may also be subject to the Missile Technology Control Regime (MTCR), which is a regime designed to limit the export of vehicles that are able to deliver weapons of mass destruction. For example, Global Positioning System (GPS) receivers are on the MTCR list because they can be used to control cruise missiles. The United States and many developed countries are members of the MTCR. *See* The Missile Technology Control Regime, *at* http://www.fas.org/nuke/control/mtcr/docs/mtcr96.htm (last visited Nov. 18, 2002).

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¹⁵⁴ Id. at xv; UNIDROIT Doc. 11, supra note 3, para.28.

¹⁵⁵ Strom Thurmond National Defense Authorization Act For Fiscal Year 1999, Pub. L. No. 105-261, 112 Stat. 2173, § 1511.

¹⁵⁶ 15 C.F.R. part 730 et seq. (2002).

¹⁵⁷ U.S. Arms Export Control Act, 22 U.S.C. § 2778 (2002).

U.S. space industry has suffered economically from the State Department's strict control on exports of space assets. The State Department considers every export application to be a high-risk decision. That has reduced U.S. aerospace manufacturers' export of space assets significantly. The CSIS report advocated changing commercial satellite export licensing from the State Department back to the Department of Commerce.¹⁶⁰ Such a change is strongly supported by the space industry.¹⁶¹ However, for the present time the United States places significant limits on transfers of controlled space assets. Thus, asset-based financing of controlled space assets manufactured by the United States companies would be subject to limitations on transfers.

B. PUBLIC LAW REGULATIONS REGARDING OPERATING SPACE ASSETS

Related to limitations on transfers of controlled space assets is the fact that many States, including the United States, regulate the transfer of radio frequency resources for public policy reasons. The FCC requires its permission to transfer use of radio frequencies and orbital slots.¹⁶² Under the Communications Act of 1934, the FCC determines whether an application to provide commercial satellite services within the United States is in the public interest. Section 301 of the Act states that: "No person shall use or operate any apparatus for the transmission of energy or communication or signals by radio" to, from, or within the United States, except in accordance with the Communications Act and "with license granted [by the FCC] under the provisions of this Act." The law also requires parties to file applications for licenses setting forth information that the FCC specifies by regulation.¹⁶³ Based on the information filed, the FCC must deter-

¹⁶⁰ Editorial, SPACE NEWS, Apr. 29, 2002.

¹⁶¹ See Sensible Export Policies, SPACE NEWS, Apr. 29, 2002, at 12.

¹⁶² 47 U.S.C. §§ 301, 308(b) (2002). The FCC has authority to prescribe qualifications for radio operators, to assign radio frequencies, and to suspend licenses.

¹⁶³ 47 U.S.C. § 309 (2002). The process for applying to transfer an FCC satellite authorization from an existing licensee to a new holder is as follows: First, the application is filed, providing the required information and a fee. The FCC staff conducts an initial review to ensure that the proper fees have been paid and that the application includes all necessary information. Next, the FCC issues a public notic that describes the application, assigns a tracking number, and establishes deadlines by which the public may submit comments supporting or opposing the application. The FCC acts on applications on a case-by-case basis. In the FCC's assessment of the public interest, it may look at a broad range of factors, including technical, competitive, financial, legal, foreign ownership, spectrum matters,

mine whether the "public interest, convenience and necessity" would be served by the grant of an application. Generally, the FCC considers several public interest factors: availability of spectrum, effect on competition, technical characteristics, interference, eligibility requirements, as well as national security, law enforcement, foreign policy and trade considerations. In addition, the Communications Act requires that prior to the transfer of an existing license to another entity, the FCC must find that the transfer will serve the public interests. For major actions, the FCC can make this determination only after issuing a public notice and offering the public an opportunity to comment on request. The law also requires parties to file applications for licenses setting forth information that the FCC specifies by regulation. To cope with applicable national public laws, regulations and limitations, the Space Protocol¹⁶⁴ permits the Contracting States to make a declaration choosing between two options of insolvency remedies at the time of ratification of or accession to the Space Protocol. (The Contracting State may also opt to decline to adopt either alternative, in which case the insolvency remedies will be those provided under its national law.) Depending on the option selected, the courts of the Contracting States shall apply that option " in conformity with the declaration made by the Contracting State that is the primary insolvency jurisdiction."165

Alternative A: In the event of insolvency, the creditor is required to hand over possession or control of the space asset to the creditor at the end of a "waiting period" specified in the declaration filed by Contracting State, which has primary jurisdiction of the insolvency.¹⁶⁶ An insolvency administrator shall preserve the space assets during the "waiting period."¹⁶⁷ The

¹⁶⁶ Id. art. XI (Alternative A).

as well as national security, law enforcement, foreign policy, and trade considerations. *See also* discussion of limitations on transfers of space assets, *supra*, at III.A; new rules issued by the Departments of Commerce and State, Licensing Jurisdiction for "Space Qualified" Items and Telecommunications Items for Use on Board Satellites, 67 F.R. 59722, issued Sept. 23, 2002. For discussion of the new rules, *see* Frederick Shaheen & Karen Tinsky, *2002: A Space Qualified Odyssey*, SPACE NEWS, Nov. 11, 2002, at 13.

¹⁶⁴ Space Protocol, *supra* note 1, art XXVI.

¹⁶⁵ Id. art. XXVI.

¹⁶⁷ Id. The Convention, *supra* note 19, art. 1, defines an "insolvency Administrator" as "a person authorized to administer the reorganization or liquidation, including one authorized on an interim basis, and includes a debtor in possession if permitted by the applicable insolvency law."

space asset may continue to function during the "waiting period."

Alternative B: In the event of insolvency the debtor shall give notice to the creditor that the debtor either will cure the default or let the creditor take possession in accordance with applicable national law.¹⁶⁸ The applicable law "may permit the court to require the taking of any additional step or the provision of any additional guarantee."¹⁶⁹ However, if the debtor fails to give notice to the creditor or fails to give the creditor opportunity to take possession, then the court may let the creditor take possession on such terms as the court may impose.¹⁷⁰

Alternative B provides the strongest protection for national regulation of the transfer of space assets in the event of insolvency. It could be argued that there is no great need for either of the alternatives provided by Article XI because creditors and debtors subject their private finance contracts to existing national laws; therefore, no conflict with national law exists. However, the Space Protocol seeks to establish primacy of international uniform law governing the finance contract so that parties to the finance contract do not hesitate to enter into finance contracts because they are uncertain about their insolvency remedies under national law. National regulation of communications assets easily becomes a barrier to international trade in those commodities. Permitting liberal transfer of space assets in case of insolvency would conform to the spirit of the 1997 WTO Agreement on basic telecommunications.¹⁷¹ The WTO Agreement strongly encourages international investment and easy transfer of assets regardless of nationality of the operator. The WTO agreement was strongly supported by the FCC, which is a major U.S. regulatory agency for the satellite indus-

¹⁶⁸ Space Protocol, *supra* note 1, art. XI (Alternative B).

¹⁶⁹ Id.

¹⁷⁰ Id.

¹⁷¹ 1997 WTO Agreement, TIAS. The FCC has licensed numerous satellite companies both from the U.S. and from other countries. With greater globalization and market changes in the last couple of years, the FCC has received several requests from satellite companies to transfer existing licenses to other entities pursuant to mergers, transactions, and investment decisions. The FCC has granted the vast number of satellite applications, both for initial licenses and for transfers. The FCC also recognizes the importance of the open, transparent authorization process in the United States and the need for that process to operate accordingly.

try.¹⁷² A liberal FCC policy on transfer of licenses would facilitate the operation of the Space Protocol.

Finally, Governmental regulatory oversight includes concerns with excessive concentration and fair competition. This examination becomes part of the public policy justification for the FCC decision for or against transfer of licenses.¹⁷³

C. DOMESTIC COMMERCIAL CODES AND THE SPACE PROTOCOL

The Cape Town diplomatic conference on the Convention on International Interests in Mobile Equipment as applied to aircraft equipment¹⁷⁴ has formulated an approach regarding the relationship between the Convention and its Aviation Protocol and domestic regimes. While there are differences in U.S. domestic laws between aviation equipment and space assets,¹⁷⁵ the same general approach adopted for aviation equipment will also apply to space assets. Thus the Aviation Protocol precedent is important in formulating and interpreting the Space Protocol.

The Convention and the Space Protocol are treaty law. The treaty law will supersede the U.S. domestic State law,¹⁷⁶ specifically, the Uniform Commercial Code adopted by the fifty States. If an international interest is filed with the international registry

¹⁷² Scott Blake Harris, Will the FCC Live Up to Its WIO Obligations?, SPACE NEWS, May 1, 2002, at 13. The Communications Act limits foreign ownership of certain U.S. radio licenses. These limitations involve ownership by foreign governments, corporations and individuals. See 47 U.S.C.A. § 310 (2002). Section 310(b)(4) is of particular significance because it requires the FCC to address indirect ownership greater than 25% in broadcast common carrier licenses. In reviewing proposed foreign investment pursuant to Section 310, the FCC relies on principles set forth in the 1997 Foreign Participation Order, including a rebuttable presumption that foreign investment in the U.S. market by entities from WTP member countries is consistent with the public interest. A sharing of very high risk to competition in the U.S. market that cannot be addressed by conditions could rebut the presumption and be the basis for denial of market entry. Based on the FCC discretion in the Section 310(b)(4), the FCC or its International Bureau have granted applications involving indirect foreign investment above 25% in several cases, including the TMI-Motient merger, restructuring of IRIDIUM, the GE-SES Global transaction, and the COMSAT-Telenor transaction.

¹⁷³ 47 U.S.C. § 314 (2002) states that monopolies in radio communication are not permitted. The FCC is given the task of preserving competition.

¹⁷⁴ Convention, *supra* note 7.

¹⁷⁵ Space assets are governed by the UCC, assuming that it is applicable. Conveyances, leases of and security instruments in civilian aircraft are recorded in the Federal Aviation Administration's recording system. 49 U.S.C. §§ 44107-44112 (2002).

¹⁷⁶ U.S. CONST., art. VI, provides that the laws of the United States and all treaties shall be the supreme law of the land.

then it will be subject to the international regime.¹⁷⁷ The UCC will apply to domestic security interests in space assets only to the extent that the Space Protocol makes exceptions regarding application of the domestic regime.

Contracting States may totally or partially except all domestic transactions from the application of the Convention.¹⁷⁸ The States may make a declaration to this effect at the time of ratification or accession to the Protocol.¹⁷⁹ The international registration system will nevertheless apply to those domestic transactions that are internationally registered. In this way, the United States may preserve its state system of domestic commercial codes by a declaration. Such a declaration will have the effect of maintaining both an international regime under the Convention and state domestic regimes under the UCC.

U.S. financiers and debtors may draw comfort from similarity to and familiarity with the basic structure of the international regime, because so much of U.S. domestic law has found its way into the Convention and the Space Protocol. The Protocol adopts the UCC principle of giving first priority to the first party to file a security interest.¹⁸⁰ This compares to the UCC,¹⁸¹ which accords priority to the person who is first in filing for perfection of the security instrument. Likewise, the Convention establishes the priority of a registered interest over other interests filed at a later time. The Space Protocol provides that "a buyer of a space asset under a registered sale acquired its interest in that asset free from an interest subsequently registered and from an unregistered interest, even if the buyer has actual knowledge of the unregistered interest."182 Similarly, the UCC gives priority to perfected security interests over unperfected interests.¹⁸³

It is also comforting for the US financiers and creditors to know that the basic U.S. approach to registration of security interests¹⁸⁴ will exist in the Space Protocol's registry of interna-

¹⁷⁷ Convention, supra note 7; Space Protocol, supra note 1.

¹⁷⁸ Convention, supra note 7, art. 50 ("A Contracting State may, at the time of ratification, acceptance, approval of, or accession to the Protocol, declare that this Convention shall not apply to a transaction which is an internal transaction in relation to that State with regard to all types of objects or some of them."). 179 Id.

¹⁸⁰ UCC § 9-312(5) (1998); see Stanford Address, supra note 1, at 9; Larsen & Heilbock, supra note 1, at 710.

¹⁸¹ U.C.C. § 9-312(5).

¹⁸² Convention, supra note 7, art 29; Space Protocol, supra note 1, art. XIII.

¹⁸³ UCC § 9-312.

¹⁸⁴ UCC §§ 9-203, 9-304.

tional interests. The Convention¹⁸⁵ requires that both creditors and debtors must consent to registration so that all parties know that they are subject to the obligations and entitled to the benefits of the international regime.¹⁸⁶

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The UCC states that the laws of the jurisdiction, including its conflict of law rules, where the debtor is located to govern perfection of the security interest.¹⁸⁷ The Convention similarly provides that it applies if the debtor is located in a Contracting State at the time of contracting.¹⁸⁸

Because the UCC has been so successful in protecting financiers, it has become a major international legal regime simply because U.S. manufacturers and lawyers may incorporate it by reference into international finance contracts. However, international trading partners will be pleased finally to have an international regime governing finance contracts rather than the incorporation by reference of the UCC, which requires them to be familiar with U.S. domestic law.¹⁸⁹

IV. NEXT STEPS

Work on the Space Protocol is proceeding in UNIDROIT, in COPUOS, in the space industry working group, in academic study, and in private talks. The work is greatly aided by the example and analogy of the Aviation Protocol proving the viability of the Protocol approach. The subject matter of the Aviation Protocol is sufficiently similar to that of the Space Protocol so the Space Protocol can simply adopt many provisions of the Aviation Protocol. Furthermore, many of the stakeholders to the two Protocols are identical or nearly identical and can therefore appreciate the advantages of the Space Protocol. For example the Boeing Company, albeit two different sections of the company, is active in both projects. The involvement of a United Nations agency, ICAO, in the Aviation Protocol, is also a useful

¹⁸⁵ Convention, *supra* note 7, art. 20.

¹⁸⁶ In the United States, the Space Protocol would add a registry additional to the registries of the fifty states; however, considering the great benefits of the international registry, the additional registry is a clear benefit as long as the it is clearly identified.

¹⁸⁷ UCC § 9-103(3).

¹⁸⁸ Convention, *supra* note 7, art. 3.

¹⁸⁹ Larsen & Heilbock, *supra* note 1, at 708. Foreign users of space assets object to the U.S. inclination to incorporate by reference U.S. law governing the contractual relationships. *See* FRANCIS LYALL, LAW AND SPACE TELECOMMUNICATIONS, 419–20. Prof. Lyall recommends that international organizations like UNIDROIT and UNCITRAL develop commercial space law.

precedent to a possible function of the United Nations as Supervisory Authority under the Space Protocol.¹⁹⁰

A. UNIDROIT

In February 2002, the UNIDROIT Steering and Revisions Committee approved the draft Space Protocol¹⁹¹ and the UNIDROIT President will assign it to a UNIDROIT Committee of Governmental Experts. It is now anticipated that the Governmental Experts Committee will meet in April 2003 to review the treaty text in order to make it ready for adoption as an international instrument.¹⁹² The UNIDROIT Council asked governments to assign knowledgeable experts to the Experts Committee. It is expected that the space industry experts will participate in those deliberations.¹⁹³ The work of the UNIDROIT Experts Committee is expected to require three sessions so that a diplomatic conference is now likely to take place in 2005.

B. Space Industry Working Group

The Space Industry Working Group is not government sponsored. It consists of individuals representing certain commercial stakeholders in this project. The commercial interests financially support the working group although it also has received administrative and secretarial assistance from UNIDROIT.¹⁹⁴ The working group entered into a new phase when it transmitted the draft Protocol to UNIDROIT. Now, the working group will concentrate on providing expertise to the UNIDROIT Governmental Experts Committee and on educating governments, as well as industry and financial institutions about the benefits of the Space Protocol. Such an effort requires the commercial interests to continue and possibly increase their financial assis-

194 Id.

¹⁹⁰ Clark & Wool, *supra* note 3; Larsen, *supra* note 63. ICAO has general authority to concern itself with secured interests in space property. The Chicago Convention charges ICAO with the broad task of fostering international air transport and thus provides legal authority for ICAO's role of providing oversight of international aviation. By analogy, the United Nations is charged by the space law treaties and by the UNGA resolutions on outer space with general legal authority over outer space.

¹⁹¹ UNIDROIT Doc. 12, *supra* note 61, at 9; *see* Stanford Address, *supra* note 1. ¹⁹² UNIDROIT Doc. 11, *supra* note 3, at 13; Stanford Address, *supra* note 1, at

^{4.} ¹⁹³ UNIDROIT Doc. 11, *supra* note 3, at 12.

tance. UNIDROIT will also lend its best offices to this educational effort.

C. COPUOS

The full COPUOS Committee met in June 2002 to approve the report of its Legal Subcommittee.¹⁹⁵ The Legal Subcommittee's future work is reflected in its agenda for its next meeting, which will take place in the Spring of 2003.¹⁹⁶ In preparation for that meeting, the U.N. Office of Outer Space Affairs (OOSA), in cooperation with the United Nations Legal Counsel, will prepare a legal report on whether it would be appropriate for the United Nations to serve as the Supervisory Authority under the Space Protocol. The COPUOS Legal Subcommittee will consider that legal report at its next meeting.¹⁹⁷ The Legal Subcommittee will also consider "the relationship between the term of the preliminary draft protocol and the rights and obligations of States under the legal regime applicable to outer space."¹⁹⁸

Regarding whether the United Nations will serve as the Supervisory Authority, it should be remembered that intergovernmental organizations other than the United Nations are also interested in serving as Supervisory Authority.¹⁹⁹ UNIDROIT is not precluded from going forward by itself in finalizing the Space Protocol if the United Nations does not commit to becoming a Supervisory Authority.

D. Domestic Issues in the United States

Finally, during the process of finalizing the Space Protocol, the interaction of the Protocol with U.S. domestic law will become clearer. Public law controls on transfer of space assets on the munitions list will continue to be applied.²⁰⁰ The existing FCC regulations on transfer of orbital slots and radio frequencies will also continue in force.²⁰¹ Finally, the relationship between the international regime of the Convention and the Space Protocol vis-à-vis the domestic regime of the Uniform

¹⁹⁵ COPUOS Report, *supra* note 19.

¹⁹⁶ *Id.* at 18.

¹⁹⁷ Id. at 17-18.

¹⁹⁸ Id.

¹⁹⁹ *Id.* For example, the International Mobile Satellite Organization (IMSO) has indicated interest.

²⁰⁰ See supra notes 155-159.

²⁰¹ See supra notes 163–164.

Commercial Code will become clearer. Very likely, it will follow the precedent set by the coexistence of the Aviation Protocol with U.S. domestic law.²⁰²

²⁰² Supra note 175.

