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## Committee on the Peaceful Uses of Outer Space

Legal Subcommittee

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Item 5 of the provisional agenda\*

**Information on the activities of international  
intergovernmental and non-governmental organizations  
relating to space law**

### **Information on the activities of international intergovernmental and non-governmental organizations relating to space law**

**Note by the Secretariat**

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\* A/AC.105/C.2/L.264.



## **I. Introduction**

In accordance with the agreement reached by the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space at its forty-fifth session (A/AC.105/871, para. 56) and endorsed by the Committee at its forty-ninth session,<sup>1</sup> the Secretariat invited international intergovernmental and non-governmental organizations to submit reports on their activities relating to space law for the information of the Subcommittee. The present document contains a compilation of the reports received by 16 January 2007.

## **II. Replies received from international intergovernmental and non-governmental organizations**

### **European Centre for Space Law**

#### **A. Background information**

##### **1. Introduction**

1. The European Centre for Space Law (ECSL) was established in 1989, at the initiative and under the auspices of the European Space Agency (ESA), with the support of a number of pioneers in the field. It functions under a charter defining its missions, structure and objectives (the last version was adopted in June 2005).

##### **2. Objectives and organization**

2. The main objective of ECSL is to build up and spread in Europe and elsewhere an understanding of the legal framework relevant to space activities. Information exchange among interested stakeholders along with improvement and promotion of the teaching of space law are the two major tools to reach that goal. Another ECSL ambition is to provide updated information on the European contribution to space activities beyond Europe and thus to enhance the European position in the field of space law practice, teaching and publications.

##### **3. A flexible and open structure**

3. The Centre – the name designates the whole structure – brings together mainly professionals, lawyers, academics and students and encourages interdisciplinary exchanges. It is organized in a very flexible manner and has no legal personality. The ECSL structure provides a forum for discussion for all those wishing to take part in a constructive debate on space law. Great potential exists in Europe in the field of space law, but it is often isolated or scattered; ECSL aims to bridge that gap. The ECSL General Assembly, open to all members, meets every two years and elects the ECSL Board, ensuring that different professional stakeholders and geographical zones are equitably represented. The Executive Secretariat is responsible for the management and growth of the Centre's activities.

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<sup>1</sup> *Official Records of the General Assembly, Sixty-first session, Supplement No. 20 (A/61/20)*, para. 199.

#### **4. The Board of the European Centre for Space Law**

4. Members of the ECSL Board are elected by the biannual General Assembly for a period of two years and are nationals of ESA member or associate States or of other European countries that have concluded a cooperation agreement with ESA. Board members have outstanding backgrounds and experience in space law and commit themselves to actively promoting the purposes of ECSL at the national and international levels.

#### **5. Membership and network**

5. Natural or legal persons from ESA member or associate States or of other European countries that have concluded a cooperation agreement with ESA can become members of ECSL upon payment of an annual fee. Membership confers the right to participate in the different ECSL activities, to vote (active and passive vote) at the General Assembly and to receive ECSL publications, in particular the ECSL newsletter. Membership must be renewed at the beginning of every year (January/February).

#### **6. National points of contact**

6. To facilitate its contacts with members, the spread of information and organization of activities, ECSL has encouraged the establishment of national points of contact that act as an interface between ECSL and its members. Thus, 10 points of contact have been set up, in Austria, Belgium, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom of Great Britain and Northern Ireland. Their status differs depending on whether an institute or centre for space law exists in the country concerned, and on the legal form that their members have chosen. The national points of contact, with organizational support from ECSL, play an important role in promoting activities such as conferences, symposiums and research on space issues. A new point of contact is being set up in the Czech Republic and ECSL is working to increase the presence of new national points of contact in ESA member States (currently 17) or even non-member States.

#### **7. Financing**

7. Currently, most ECSL funding is provided by ESA from its general budget, while other institutions such as the German Space Agency (DLR) and the British National Space Centre provide support for specific events such as the summer course. Since January 1994, a small annual membership fee has been required from ECSL members.

### **B. Activities**

#### **1. Summer Course on Space Law and Policy**

8. The Fifteenth ECSL Summer Course on Space Law and Policy was held at the European Space Research and Technology Centre (Erasmus Centre), in Noordwijk, the Netherlands, from 4 to 15 September 2006. Some 40 students and four tutors, from Austria, Belgium, France, Germany, Greece, Italy, the Netherlands, Nigeria, Poland, Portugal, Spain, Ukraine and the United Kingdom attended the course.

Students were given a broad overview of legal, political and technical issues related to space activities from well-known academics and experts from the private sector. Lecturers were asked to interact with students and to encourage discussion and exchange of views among participants as much as possible. The programme was very demanding, since students attended three or four lectures a day and also worked on a case study (“The use of space for scientific purposes: simulation of an international call for tenders”; coordinator: P. Achilleas (Institut du droit de l’espace et des télécommunications (IDEST), Faculté Jean Monnet, Université Paris-Sud XI)), to be presented at the end of the course to an international panel of experts, among them Gérard Brachet, Chairman of the Committee on the Peaceful Uses of Outer Space, and Ciro Arévalo, Deputy Ambassador of Colombia to Austria. The level of the presentations was very high and all the students’ final work was interesting and challenging. Lectures were held in the television studio at the Erasmus Centre; some presentations were filmed and are now available on video upon request (<http://streamiss.spaceflight.esa.int/?pg=production&dm=1&PID=ecl2006>).

9. Students visited the research and development facilities of ESTEC, as well as the International Court of Justice in The Hague, where Judge Vladlen S. Vereshchetin gave students an enriching presentation on “Space law and the International Court of Justice”. The proceedings of the Summer Course (paper and CD-ROM versions) will be available in the coming months.

10. The 2007 Summer Course will take place at Queen’s College, University of London.

## **2. Manfred Lachs Space Law Moot Court Competition**

11. ECSL organized the European rounds of the Manfred Lachs Space Law Moot Court Competition at the Interdisciplinary Centre for Space Studies of the Catholic University of Leuven on 24 and 25 April 2006, in cooperation with the Federal Office for Science Policy and the ECSL national point of contact of Belgium. Six teams took part, all of which carried out excellent research.<sup>2</sup> The winner of the European rounds was the team from the Catholic University of Leuven, Belgium, composed of Emmanuel De Groof, Gareth Price and Batist Paklons. The runner-up was the University of Leiden, with a team composed of D. J. Den Herder, Kevin Comer and Susanne Rosmalen. The award for Best Oralist went to Kevin Comer and the award for Best Written Brief went to the Catholic University of Leuven. The event was followed by a workshop entitled “Towards a legal framework for space activities and applications: Belgian, comparative and European perspectives”, organized by the ECSL national point of contact for Belgium at the Belgian Senate on 26 April 2006.

12. The world finals of the competition were held at the Tribunal Superior de Justicia, in Valencia, Spain, on 5 October 2006, during the annual International Astronautical Congress. Europe (and ECSL) was represented by a team from the Catholic University of Leuven, Belgium. The European team presented its legal

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<sup>2</sup> Belgium: Catholic University of Leuven and Free University of Brussels; Germany: University of Bremen; the Netherlands: International Institute of Air and Space Law, Leiden; Poland: Institute for International Relations, University of Warsaw; and Spain: Department of Law and Business Administration and Management, University of Jaén.

arguments well in the semi-final against the University of Auckland, with both teams defending their positions with sound legal analysis in passionate pleadings, but eventually the University of Auckland won not only the semi-final but also the final against McGill University, Canada. Three judges of the International Court of Justice sat on the panel, Judge Abdul E. Koroma, Judge Peter Tomka and Judge Bernardo Sepúlveda.

13. The case for the 2007 competition is already available on the official website of the competition ([www.spacemoot.org](http://www.spacemoot.org)).

### **3. Practitioners Forum**

14. The 2006 Practitioners' Forum was organized at ESA Headquarters in Paris on 17 March, with Frans G. von der Dunk (International Institute of Air and Space Law, University of Leiden) as coordinator. The forum, with the theme "Space tourism: legal and policy aspects", was attended by some 100 participants from various institutional, commercial and academic professions as well as from a host of countries (including non-European countries such as Canada, India, Mexico, Thailand and the United States of America). Most notably, participants included the Director-General of ESA, Jean-Jacques Dordain, and the former astronaut and former French Minister for Research and New Technologies, Claudie Haigneré. A keynote speech was given by Will Whitehorn, President of Virgin Galactic, a London-based company within the Virgin Group, which is currently developing the first sub-orbital tourist vehicle. For that purpose, Virgin Galactic used essentially the technology used for the SpaceShipOne vehicle, which won the Ansari X-Prize of \$10 million in October 2004. That technology, developed by Scaled Composites of the United States, had already been licensed to Virgin Galactic for the purpose.

15. The theme of the 2007 Practitioners' Forum will be "Consolidation of the European space industry: legal aspects" and the Forum will again be held at ESA headquarters, in April.

### **4. Colloquiums, conferences and international cooperation**

16. The annual International Institute of Space Law (IISL)/ECSL Space Law Symposium, on "Legal aspects of disaster management and the contribution of the law of outer space", was held in Vienna on 3 April 2006, on the occasion of the forty-fifth session of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space. Peter Jankowitsch, Chairman of the Advisory Board of the Aeronautics and Space Agency of Austria and past Chairman of the Committee, chaired the Symposium. IISL and ECSL coordinated the programme. The Symposium concerned legal aspects of disaster management, a very topical and significant issue in view of the many disasters happening around the globe each year and the increasing contribution of space technology in response to disasters. The Symposium was opened by Ambassador Jankowitsch, followed by four speakers discussing topics related to the legal aspects of disaster management: Joanne Gabrynowicz (National Remote Sensing and Space Law Center, University of Mississippi, United States); Ray Harris (Department of Geography, University College London); Sergio Marchisio (Director, Institute for International Legal Studies, National Research Council of Italy, and Vice-Chairman of ECSL); and Masami Onoda (Kyoto University, Japan)). Vladimir Kopal, Vice-President of IISL, made concluding remarks.

17. ECSL attended as an observer the meeting of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space in April 2006. The Chairman of ECSL presented the Centre's functioning and achievements, in particular the "mini-site" attached to the ECSL network devoted to Latin America and the teaching of space law. The ECSL initiative was very well received and led the Legal Subcommittee to select as the theme for the next IISL/ECSL symposium, to be held in 2007, the topic "Teaching space law: capacity-building activities of national and international space law institutions".

18. The Second ECSL/Royal Centre for Remote Sensing of Morocco Workshop on Space Law and Space Applications was organized by the two bodies in Rabat on 22 and 23 June 2006. The Workshop, with the participation of high-level international experts in space activities and law, among them Mr. Brachet, Chairman of the Committee on the Peaceful Uses of Outer Space, provided an opportunity to present to participants the international treaties and conventions that govern space activities and to debate the evolution of space law in relation to recent technological developments. Earth observation, space telecommunications and satellite positioning systems are well integrated into both professional activities and everyday life. The technical changes and continual expansion that characterize space activities and their applications underline the importance of international legal instruments and the need for countries to set up a legal framework to protect their interests. Furthermore, privatization and commercialization are expanding in various sectors of space activity, which is leading to new legal relations and implications. The Workshop was well attended and positively received. The Royal Centre for Remote Sensing of Morocco is currently editing the proceedings, which will be available soon.

19. ESA and ECSL attended the Fifth Space Conference of the Americas, held in Quito, from 24 to 28 July 2006, as observers. The theme chosen for the Conference was "Regionally coordinated decision-making on space matters for security and human development". Within that framework, the Conference discussed in particular space law, education and access to knowledge, the prevention of natural disaster and so on. The ECSL representative made a presentation on ECSL and its "mini-site", describing the ECSL virtual network related to Latin American and Caribbean countries. The presentation was very well received and questions were raised by the audience. The ECSL representative also had an opportunity to express views on the teaching of space law and the experience of ECSL, which were mentioned in the declaration and action plan adopted by the Conference with explicit reference to ECSL.

20. The Fourth Regional IISL Space Law Conference on Asian Cooperation in Space Activities: a Common Approach to Legal Matters was held in Bangkok from 1 to 4 August 2006. One of the most remarkable activities of IISL is the convening of space law conferences at the regional level such as the Fourth Regional Conference, organized jointly by the Ministry of Information and Communication Technology of Thailand and IISL. Nipant Chitasombat, Founding Director of the Space Law and Policy Centre, Chulalongkorn University, Bangkok, successfully arranged the Conference, whose main objective was to promote better knowledge of space developments in Asia, including legal developments. The speakers from Asian countries, including China, India, Indonesia, Japan, Korea, Singapore and Thailand, as well as participants, provided an excellent Asian perspective, while the speakers

from North America and Europe added the experience of their respective regions to the debate. The Conference was opened at a ceremony presided over by Princess Maha Chakri Sirindhorn, daughter of King Phumiphol Aduliadey, in the year of the sixtieth Anniversary of the King's reign. During the ceremony, keynote speeches were pronounced by Sompong Sucharitkul (Associate Dean and Professor of International and Comparative Law, Golden Gate University, San Francisco) and Vladimir Kopal (Charles University, Prague). ECSL was represented by Sergio Marchisio (Director, Institute for International Legal Studies, National Research Council of Italy, and Vice-Chairman of ECSL), who also made a keynote speech. The Conference consisted of five sessions devoted to major developments in the Asian region: the regulatory regimes governing telecommunications, developments in national space legislation, the legal aspects of disaster management, regional cooperation relating to space activities and legal issues arising from space exploration and exploitation. Each session gave a well balanced insight into new developments in Asia and more general legal problems linked to them. The Conference not only achieved its informative objective, but largely exceeded that goal.

21. The University of Graz, Austria, organized a Conference on National Space Law: Developments in Europe/Challenges for Small Countries in Graz on 21 and 22 September 2006. Although the developments in and diversity of space activities make the drafting of comprehensive legislation difficult, the Conference was the occasion to stress the importance of implementing national space legislation. It was well attended, with many experts also from Eastern and Central European States. The Conference was followed by the first general meeting of the ECSL national points of contact, which allowed the existing points of contact and perspective ones to exchange views and to present their structure, current activities and future projects.

22. At the request of the Director General of ESA, ECSL convened a meeting on 30 June 2006 with potential partners from the private space sector (European Aeronautic Defence and Space Company (EADS, France), Arianespace, Marsh, Eutelsat, Telespazio, Alenia Spazio, Crédit Agricole and EUROCONSULT) to discuss the modalities and content of a possible future partnership between ECSL and private entities. The latter unanimously expressed great appreciation for the achievements of ECSL in the space law sector and manifested interest in such a partnership. The partnership would, among other things, reinforce the continuous exchange of technical information between ECSL and its partners on activities related to research and development and utilization and exploitation of space technologies; strengthen the achievements of ECSL in imparting knowledge of space law and its implementation; facilitate the identification and study of legal topics of special interest; and develop possibilities for placements and grants. The partnership would be based on a declaration of partnership to be approved by the ECSL Board and signed by the partners for a duration of five years.

**5. Policy and administration: General Assembly**

**6. Documentation and publications**

*(a) Legal database*

23. Since October 2004, the ECSL legal database (<http://www.esa.int/SPECIALS/ECSL>) has been active and open to the public. It represents a unique tool for the promotion of knowledge of space law at the European and international levels. The purpose of the database is to familiarize users with space law and to highlight results and outputs of space law conferences and forums (such as proceedings, research and articles). The site is also intended to promote the work carried out by the ECSL national points of contact, space law institutes, universities, research centres, the Committee on the Peaceful Uses of Outer Space, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and other organizations, as well as national space agencies, in order to create a network among all institutions, educational centres and research facilities working in the area of space law. The ECSL legal database is updated and new links are added on a regular basis.

*(b) Fourth edition of "Space law teaching in Europe"*

24. The booklet "Space law teaching in Europe" is an ECSL initiative first issued in 1991 and revised in 1993. The booklet includes a list of space law teaching institutions, universities and educational centres at the European level. It also provides detailed information on teaching staff, credits, tuition fees and the duration of the different courses, together with illustrations of the institutions listed.

25. The third edition of "Space law teaching in Europe" was published in May 2005 and has been distributed free of charge to institutions and academics interested in the teaching of space law as well as to students. The fourth, extended version of the booklet is in preparation and will be finalized in the coming months.

*(c) Newsletter*

26. The ECSL newsletter features articles on legal issues and other topics of interest to the space community. For instance, a special issue (No. 33) was devoted to the topic of space tourism. Other topics have included the Global Monitoring for Environment and Security: a new way of European cooperation; current status of mitigation measures on space debris; and consideration over the loss of the ESA CryoSat satellite. The ECSL newsletter is a precious tool to provide information on new developments in space law as well as other events around the world (conferences, workshops, etc.) relevant to the space sector and space applications. Each new issue of the ECSL newsletter is sent free of charge to all ECSL members and is then published on the Centre's website.

27. The latest issue (No. 34) will be published in November 2006.



## C. Upcoming Events and projects planned for 2007

### *International Institute of Space Law/European Centre for Space Law Symposium 2007*

28. The next IISL/ECSL Symposium is scheduled to be held on 26 and 27 March 2007, during the forthcoming forty-sixth session of the Legal Subcommittee (26 March-5 April 2007), and will focus on capacity-building activities of national and international space institutions.

### *Annual Practitioners' Forum*

29. The next Practitioners' Forum, on the theme "Consolidation of the European space industry: legal aspects", will be held at ESA headquarters in Paris in April 2007.

### *Manfred Lachs Space Law Moot Court Competition*

30. The European rounds of the Manfred Lachs Space Law Moot Court Competition will be held in April/May 2007 (location to be determined).

### *Conference on the Legal and Ethical Aspects of Space Exploration*

31. As follow-up to the Conference on a Legal and Ethical Framework for Astronauts in Space Sojourns, held at UNESCO headquarters in Paris on 29 October 2004, ECSL, the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) of UNESCO, the ESA Legal Department and IDEST will organize a further conference, on the legal and ethical aspects of space exploration, also at UNESCO, in May/June 2007. This second conference will focus on the exploration of outer space in line with the projects announced by some space agencies, such as the Vision for Space Exploration of the National Aeronautics and Space Administration of the United States and the ESA Aurora programme. The conference will address the different topics involved and analyse them from a legal and ethical perspective. The ECSL website contains updates on the programme (<http://www.esa.int/SPECIALS/ECSL/>) and a thematic web page will be also created on the UNESCO/COMEST site (<http://www.unesco.org/ethics>). Those interested are invited to contact the conference organizers to be put on the mailing list ([conference2006@idest-paris.org](mailto:conference2006@idest-paris.org)).

32. The Sixteenth ECSL Summer Course on Space Law and Policy will be held at Queen's College, University of London, from 3 to 15 September 2007.

33. The 58th International Astronautical Federation Congress and the 50th IISL Colloquium will be held in India in October 2007.

## **International Law Association**

### **Space Law Committee of the International Law Association and its most recent contributions**

1. The contribution of the International Law Association (ILA) to the development of space law goes back to 1958, when the Space Law Committee, the activity of which has continued to date without interruption, was set up within the framework of ILA at its 48th Conference, in New York. The history of ILA and its work relating to space law has been recorded in previous presentations to the Legal Subcommittee and the Committee on the Peaceful Uses of Outer Space. The following lines will therefore be confined to the most immediate results of the last ILA mandate and to reflecting the way opinion was moving at the time of the 72nd ILA Conference, held in Toronto from 4 to 8 June 2006. Since November 2001, the officers of the Committee have been Maureen Williams (Argentina), Chairperson, and Stephan Hobe (Germany), Rapporteur.

2. On that occasion, the Space Law Committee submitted its second report, entitled “Legal aspects of the privatization and commercialization of space activities: remote sensing and national space legislation”, as a follow-up to its previous report on the same topics for the ILA Conference held in Berlin in 2004. The Committee’s objective for the 2006 report was to highlight the most controversial issues raised in Berlin on topics that appeared to be closely interwoven on the international scene. Like all important questions, they have an undoubted political dimension.

3. During the preparation of the Toronto report, which was preceded by a questionnaire circulated to members in the early part of 2005, the Committee felt that remote sensing and national space legislation were becoming increasingly related to registration issues. Thus the 2006 report – and the 2005 questionnaire – consisted of three sections addressing, in turn, state practice on remote sensing, national space legislation and registration.

4. Special efforts were made during 2005 on questions concerning registration based on the following sources, inter alia:

(a) The international symposium marking the end of Project 2001 Plus, held at the University of Cologne, Germany, from 8 to 10 June 2005;

(b) The Working Group on the Practice of States and International Organizations in Registering Space Objects (Working Group on Registration) set up by the Legal Subcommittee for a three-year research programme on current state practice;

(c) The figures provided in a note by the United Nations Secretariat dated 14 April 2005 on registration statistics for 1957-2004 (A/AC.105/C.2/2005/CRP.10);

(d) The work carried out by the University of Cologne in connection with Project 2001 Plus and its various workshops, conducted by Professor Hobe;

(e) Likewise, the research projects on the subject carried out by the University of Buenos Aires and the National Council for Scientific and

Technological Research of Argentina (CONICET), under the direction of the Chairperson of the ILA Committee;

(f) A comparative study of a number of national laws on the matter, in surveys including both industrialized and developing countries, and where the members of the ILA Space Law Committee played an important part.

5. In 2006, the main source of reference for the ILA Committee was the first report of the Working Group on Registration of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space dealing with the practice of States and international organizations in registering space objects (A/AC.105/871, annex III). This question will be considered later, when dealing with the contribution to the work of the Legal Subcommittee on the topic prepared by the ILA Space Law Committee,<sup>3</sup> which is annexed hereto.

6. The questions underlying the legal aspects of space debris and dispute settlement were addressed briefly in Toronto as they are both kept under permanent review by the ILA Space Law Committee, in particular between the international conferences. The former topic is being considered in the context of the ILA International Instrument on the Protection of the Environment from Damage Caused by Space Debris (adopted by ILA at its 66th Conference) and the latter is examined with reference to the ILA Convention on the Settlement of Disputes Related to Space Activities (adopted by ILA at its 68th Conference).<sup>4</sup>

7. Following the practice established in the Committee's report for the Berlin Conference, in this second report the General Rapporteur, Professor Hobe, continued to address national space legislation (part two of the 2006 Toronto report). In part one of the Toronto report the Chairperson of the Committee pursued the treatment of the legal aspects of remote sensing. In both cases there are frequent references to registration issues.

8. A fairly good cross-section of Committee members answered the 2005 questionnaire in their personal capacity and commented on the 2006 Toronto report.

#### **1. Remote sensing<sup>5</sup>**

9. Committee members commented on the need for further discussion and/or adjustments to the Principles Relating to Remote Sensing (General Assembly resolution 41/65, annex).

<sup>3</sup> The contribution is entitled "Comments and suggestions on registration issues by the Space Law Committee of the International Law Association". The final version was prepared by the Chairperson of the Committee and the General Rapporteur on the basis of the Toronto space law report and is consistent with the discussions held during the Toronto space law working session of the 72nd ILA Conference. On 17 September 2006, after further reworking, consultation and updating, the draft was sent to the Office for Outer Space Affairs of the United Nations Secretariat as requested by the Chairman of the Working Group on Registration.

<sup>4</sup> These international instruments are published in the ILA conference reports for 1994 and 1998, respectively, and have been introduced to the Legal Subcommittee in previous years by the then Chairman of the ILA Space Law Committee, Karl-Heinz Böckstiegel.

<sup>5</sup> The comments of the members of the Space Law committee of this subject may be consulted, in full, in the report to the 72nd ILA Conference, currently in press, and also at [www.ila-hq.org](http://www.ila-hq.org) (click on "committees" and then on "Space Law").

10. Committee members also commented on the validity of the Principles. The key issue in remote sensing is, naturally, the validity of the Principles, in other words, whether they are part of customary international law, or, rather, that state practice reveals that the Principles are being observed. The answers from Committee members, predominantly in the affirmative, are reflected in the Toronto report.

11. The lowest common denominators on remote sensing drawn from the answers to the 2005 ILA questionnaire and 2006 space law report to the Toronto Conference are to discuss the Principles, or simply talk about them, without further implications for the moment (except for the possible drafting of some ILA guidelines on interpretation).

12. The prevailing opinion in the Space Law Committee was that the Principles did reflect, to a considerable extent, customary international law. Both general practice and an *opinio juris* could be identified in the field.

13. Regarding remote sensing and registration, reference is made to the Committee's contribution to the Working Group on Registration of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space (see annex). Likewise, for details of the answers of the members of the Committee on the subject, and descriptions of the systems adopted by their respective countries, reference is made to part C of the Committee's report to the Toronto Conference:<sup>5</sup>

(a) At the root of the question was a problem of substance. Digital images, which were, in fact, a collection of data, could be easily modified without possibility of detection. That situation ran counter to the use of satellite imagery in court, in particular in international and national boundary disputes. That had been clearly shown in a number of cases decided by the International Court of Justice and other tribunals in recent times;<sup>6</sup>

(b) Manipulation of digital data was currently affecting other areas as well, a reality that required prompt examination in scientific journals;

(c) A goal should be set so as to give the question a more positive spin. For example:

(i) By drafting international standards for authentication of satellite imagery;

(ii) By controlling the whole process of data collection;

(iii) By compiling a list of highly qualified experts to whom the parties to a dispute, and courts and tribunals, could resort.

## **2. National space legislation**

14. In accordance with the mandate emanating from the 2004 Berlin Conference, the Toronto report continued its work on the basis of the agreed four "building blocks" concerning:

(a) Authorization of space activities;

(b) Supervision of space activities;

(c) Registration of space objects;

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<sup>6</sup> For further details, see the New Delhi (2002) and Berlin (2004) ILA reports.

## (d) Regulation of compensation.

15. To that end, state practice in the field of national space legislation was examined by the Committee's General Rapporteur, in particular in the framework of the 2005 questionnaire mentioned above and the international symposium that marked the end of the project, held in Cologne, Germany, from 8 to 10 June 2005.<sup>7</sup> Emphasis was given to recent developments in the area, with emphasis on the findings of Project 2001 Plus and its workshops.<sup>8</sup>

16. As regards state practice on national space legislation, the report noted that national laws on remote sensing were still rather scarce. It was recommended that topics such as authorization and licensing, operation and supervision of Earth observation satellites, data policies and access control should be dealt with by domestic law. Among the countries having enacted national space legislation or at least administrative regulations on the matter, especially in the field of national registries, mention was made of Argentina, Australia, Brazil, Norway, the Russian Federation, Sweden, the United Kingdom and the United States. Other countries, such as France and the Netherlands, were currently working on the subject.<sup>9</sup>

17. Part two of the Toronto report gave due importance to registration issues, which was, in fact, one of the four building blocks for national space legislation, as generally concluded in the workshops on the subject within Project 2001 Plus.

18. It was agreed that, among the many reasons for having national space legislation, the following took pride of place:

(a) The sharp differences in current state practice concerning registration, licensing, fees and insurance requirements, which, in turn, eased "licence shopping";

(b) The fact that States were not fully aware of their international obligations arising from article VI of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (General Assembly resolution 2222 (XXI), annex), with respect to the authorization and supervision of national space activities, especially those carried out by non-state actors. In that context, it was recommended that the Outer Space Treaty and the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex) be strengthened so as to be consistent with the present international situation and that it was essential to identify those provisions which should be made more specific by domestic law. This was likely to create more awareness in those countries which had not yet enacted national space legislation in the sense that they were possibly in danger of breaching public international law.

<sup>7</sup> The proceedings of the symposium, where registration issues were one of the priorities, were published in *Project 2001 Plus: Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (Cologne, Carl Heymanns, 2006).

<sup>8</sup> Attention was drawn, in this connection, to the workshop on the theme "Towards a harmonised approach to NSL in Europe" (Berlin, January 2004) and, later, the workshop organized jointly by the University of Cologne and the German Aerospace Center on the theme "*Current issues in the registration of space objects*".

<sup>9</sup> For the views of the members of the ILA Space Law Committee, see part two of the 2006 ILA report (Toronto), sect. 6 (a) and (b).

## Annex

### **Comments and suggestions on registration issues by the Space Law Committee of the International Law Association**

#### **Contribution of the International Law Association to the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space and its Working Group on the practice of States and International Organizations in Registering Space Objects**

1. Further to its first report, discussed and adopted at the International Law Association (ILA) Berlin Conference in 2004, the ILA Space Law Committee submitted a second report, entitled “Legal aspects of the privatization and commercialization of space activities: remote sensing and national space legislation”, focusing on state practice relating to all three topics, to the ILA at its 72nd Conference, held in Toronto in 2006. The registration of space objects, in fact, has been on the agenda of the Space Law Committee since 2000, when a special report was submitted to the ILA London Conference, followed by a resolution adopted at the 70th Conference, held in New Delhi in 2002, that included recommendations on registration.

2. The 2006 Toronto report includes a chapter with comments on the answers of Committee members to a questionnaire circulated in 2005 addressing state practice with regard to remote sensing, national space legislation and registration. That report draws attention to important developments in recent times and at both the scientific and the governmental levels relating to registration, clearly indicating that certain sections of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex) are outdated. It is most important to get States to implement the obligations of the treaties relating to outer space. In that quest, many of the deficiencies or outdated aspects of the Convention can be taken into account during national implementation.

3. The beginning of the new millennium was marked by scientific meetings and workshops on registration and related matters. The Institute of Air and Space Law of the University of Cologne, Germany, for example, organized a number of international symposiums on the topic in cooperation with the German Aerospace Center (DLR) during 2004-2005. In other latitudes, a research project on the subject is currently being conducted in the framework of the National Council for Scientific and Technological Research of Argentina (CONICET/University of Buenos Aires) in consultation with the National Space Activities (CONAE) of that country. Details concerning these projects can be found in the ILA report submitted by the Space Law Committee to the 2006 Toronto Conference.<sup>a</sup>

4. Noteworthy for its many implications, and at the governmental level, is the setting up in 2004 by the Committee on the Peaceful Uses of Outer Space of the

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<sup>a</sup> For the full text of the report see the ILA website ([www.ila-hq.org](http://www.ila-hq.org): click on “Committees” and then on “Space Law”), as also the London, New Delhi and Berlin ILA reports of the Space Law Committee. The Toronto proceedings and resolutions, in book format, should be available by the end of 2006.

Working Group on the Practice of States and International Organizations in Registering Space Objects (Working Group on Registration) to deal with the practice of States and international organizations in registering space objects. The Working Group submitted its first report in 2006 (A/AC.105/871, annex III).

5. In the following comments on registration, due regard will be given to the above-mentioned sources, which reflect the views of both industrialized and developing countries. Likewise, the above-mentioned report, submitted by Kai-Uwe Schrogl, Chairman of the Working Group, will be a source of permanent reference, as well as the opinion of experts within the Scientific and Technical Subcommittee and the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space. On these bases, the ILA Space Law Committee, as a permanent observer to the Committee on the Peaceful Uses of Outer Space, will be expressing its views hereunder. An attempt will be made to produce suggestions on possible ways of interpreting the Registration Convention in the light of the current trends towards commercialization and privatization of space activities. The main objective of the present ILA contribution is to increase the overall acceptance of the Convention, today under challenge, both by States, international organizations and private entities involved in space activities.

#### **1. General comment**

6. The underlying approach of the Chairman of the Working Group on Registration, in the sense that every effort should be made to broaden the acceptance of the Registration Convention (para. 8 of the report), should be fully supported. Therefore, the recommended harmonization of administrative proceedings seem a sensible course of action in order to achieve the objectives set by the Working Group.

#### **2. Definitions**

7. It appears realistic to make use of some of the key notions applicable to the field of international space legislation relating to the registration of space objects with a view to increasing support to the Convention, which is at present under challenge:

(a) Within the concept of “launching State” embodied in General Assembly resolution 59/115, it is advisable to include not only the actual launching State and the State from whose facilities or territory a space object is launched, but also the State procuring the launching. To that end, the meaning of “procurement” should be clarified by adding the words “State controlling a launching activity”. This would no doubt enhance the possibility of also considering launching States those which authorize or supervise private space activities;

(b) Furthermore, and as recommended by the General Assembly in its resolution 59/115, the concept of “space object” should also include parts of a space object and the launcher;

(c) In addition, if such objects are included within that concept, then objects that are technically or functionally independent parts of larger space objects should also be included;

(d) Space objects built in outer space using various parts or elements launched thereto for that purpose should be equally considered space objects;

(e) The expression “State of registry” should be fully introduced as meaning the launching State in whose registry a space object has been listed pursuant to article II of the Registration Convention;

(f) In cases where more than one possibility for State of registry exists, the States involved should establish, in accordance with the terms of their underlying agreements, which of them is to be considered the State of registry.

### **3. Duty to register**

8. Without getting involved in the subtleties of a discussion on the reach and implications of the terms “duty” and “obligation”,<sup>b</sup> it is considered that, as embodied in the Registration Convention, there are two aspects to this question:

(a) The national aspect, that is, the entry into a national registry;

(b) The international aspect, which concerns registration of a space object, with all the required information, with the Secretary-General of the United Nations.

9. These duties are incumbent on the State responsible for the launch and, if and when the requirements laid down in article VII of the Convention are met, also on international organizations. In the case of more than one launching State, the States involved shall establish, by means of an inter-party agreement, which of them is to be the State of registry.

10. It should be borne in mind, however, that, in spite of the need for inter-party agreement, normal practice is dual notification. The United Nations registry normally takes account of this with dual references to the notifications.

### **4. Contents of the United Nations Registry**

11. Every State of registry shall submit the information listed in this section to the Secretary-General of the United Nations. In that context, and in order to avoid significant delays, States parties to the Registration Convention should agree to consider the formula “as soon as practicable” embodied in article IV as meaning 24-72 hours after the launch.

12. The above statement is, of course, without prejudice to certain realities. For example, some geostationary (GEO) satellites may take some time to reach their final orbit position, in particular when using electric propulsion. Therefore final details will remain uncertain for a time. This is also the case for those and other GEO satellites which are purchased in orbit. In such circumstances the State having procured the launch does not own the satellite for many months after launch. The prevailing trend among the major launching States is to notify in batches, three or four times a year.

13. That said, and besides the information required by article IV of the Registration Convention, information should be included on the designation of the space object made in accordance with the standards of the Committee on Space

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<sup>b</sup> For the purpose of the present comments, the word “duty” will be seen as synonymous with “obligation”.



Research, as well as the date and time of launch, the place and jurisdiction of the launch and the specific function of the space object. Kilometres, minutes and degrees are recommended as agreed standards.

14. The report of the Working Group on Registration underlines the need for additional information to be furnished in connection with the space object (A/AC.105/871, annex, para. 8 (b)(iv)). In this respect it appears appropriate for the following additional information to be furnished to the Secretary-General of the United Nations:

- (a) Information relevant to the mass of the space object;
- (b) Information concerning the owner and operator of the space object;
- (c) Information concerning a change of owner or State of registry;
- (d) Information concerning the use of nuclear power sources on board;
- (e) Information concerning the presence of astronauts on board;
- (f) Information in the case of the non-functioning of a space object;
- (g) Date of decay of the space object based on Greenwich Mean Time (GMT)/Coordinated Universal Time (UTC);
- (h) Information concerning a military satellite, provided this does not affect strategic information;
- (i) Date of entry into a national registry;
- (j) Designation of the national authority for registration;
- (k) Any change in the mission or in the fundamental parameters of the orbits.

15. Indeed, agreement on the need to provide the information listed, as described in the report of the Working Group, would be an important step forward.

## **5. Details concerning the national registry**

16. The requirements for national registries shall be established by States parties having in mind the current general practice and with a view to maintaining uniformity. In addition to the information furnished to the Secretary-General pursuant to article IV of the Registration Convention, the following details should be provided in the case of national registries:<sup>c</sup>

- (a) Information concerning the owner and operator of the space object;
- (b) Information concerning a change of owner or State of registry;
- (c) Information concerning the use of nuclear power sources on board;
- (d) Information concerning the presence of astronauts on board;
- (e) Information in the case of the non-functioning of a space object;
- (f) Date of decay of the space object based on GMT/UTC;

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<sup>c</sup> The suggested extra requirements for national registries are shown in italics.

- (g) Information concerning a military satellite, provided this does not affect strategic information;
- (h) Date of entry into a national registry;
- (i) Designation of the national authority for registration;
- (j) Any change in the mission or in the fundamental parameters of the orbits;
- (k) *In the case of joint launches, the text of the relevant agreements;*
- (l) *Details relating to insurance;*
- (m) *Precautions and measures concerning possible contamination resulting from the activity of the space object in question.*

**6. Transfer in orbit**

17. The currently topical issue of transfer in orbit is covered in paragraph 8 (c) (iii) of the report of the Working Group on Registration. It is important to bear in mind that, in the case of transfer of ownership from one legal person to another, this should be indicated by the State of registry to the Secretary-General. This information should contain every detail of the new legal situation.

**7. Registry of payloads**

18. In the case of transfer of payloads, the launching vehicle and the payloads on board shall be registered separately. The launching vehicle shall be registered by the State meeting the requirements as launching State set out in article I of the Registration Convention. The registry of the payload on board the launching system is incumbent on the State procuring the launch or on the State under whose jurisdiction or control the launch is made.

**8. Nuclear power sources**

19. When a space object uses nuclear power sources on board in outer space, information relevant to the use of those sources, as required by the Principles Relevant to the Use of Nuclear Power Sources in Outer Space (General Assembly resolution 47/68), and its safety assessment should be included in the registry.

**9. Change of contents of the registry**

20. Any change in the information relevant to the registration shall be followed by a change in the registry. This is also the case when a space object leaves an orbit and re-enters the Earth's atmosphere.

**10. International organizations**

21. International organizations not fulfilling the requirements of article VII of the Registration Convention shall register objects on a voluntary basis pursuant to General Assembly resolution 1721 (XVI). Privatized international organizations (such as Intelsat and Inmarsat) shall be treated as private enterprises. The seat of a company or satellite organization shall be the main point of reference for attributing responsibility to a State for exercising jurisdiction and control.