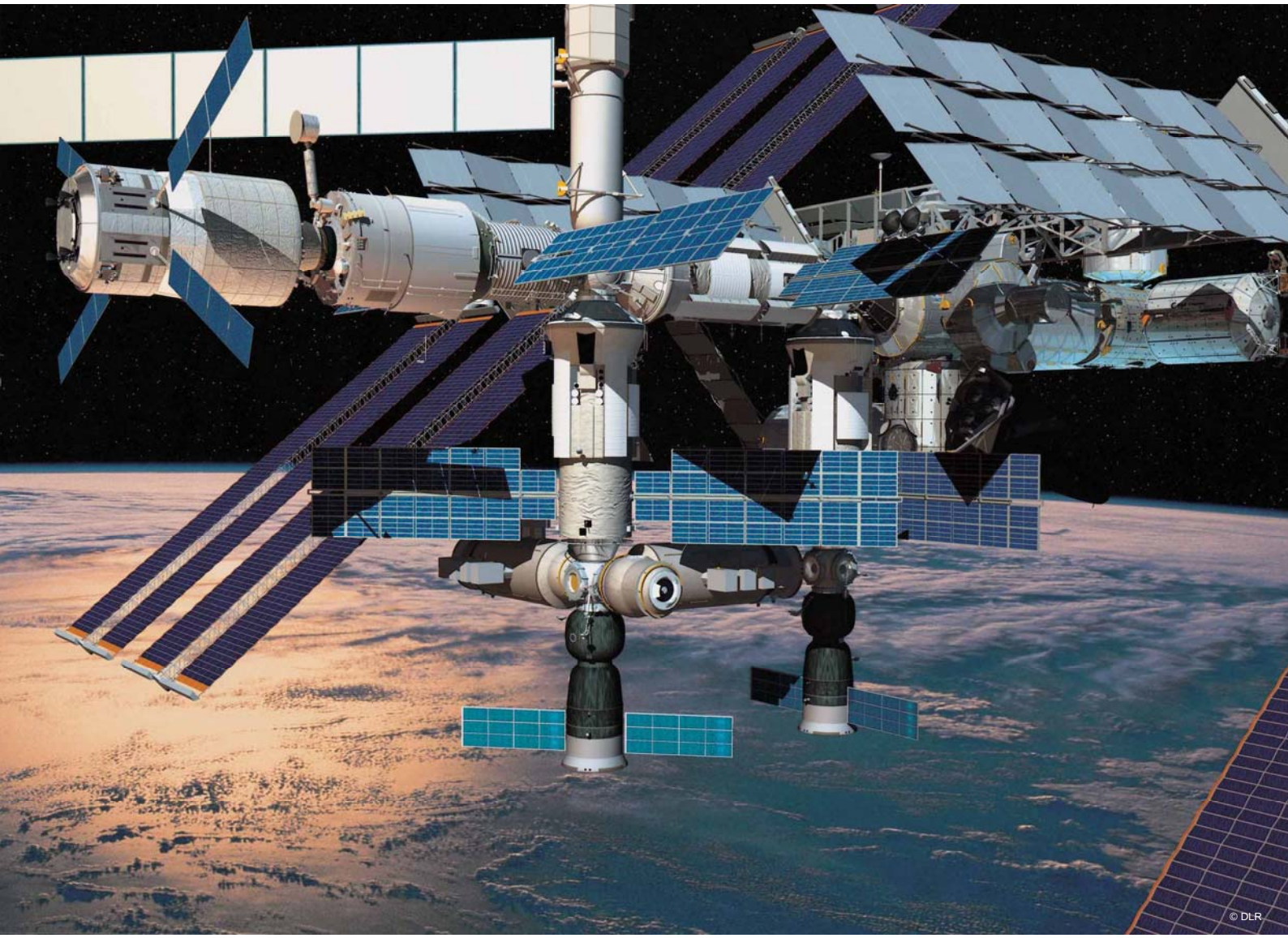
Proceedings of the 1st Authors' Workshop
Vienna, Austria, 10 – 11 January 2008
Volume I: The 1967 Outer Space Treaty

CoCoSL
Cologne Commentary on Space Law



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für Luft- und Raumfahrt e.V.
German Aerospace Center

Stephan Hobe • Bernhard Schmidt-Tedd • Kai-Uwe Schrogl • Gérardine Goh

Proceedings

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for Volume I:
The 1967 Outer Space Treaty

of the Cologne Commentary on
Space Law (**CoCoSL**)

Institute of Air and Space Law
of the University of Cologne

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für Luft- und Raumfahrt e.V.
German Aerospace Center

Preface

This document is based on the presentations and round-table discussions from the Cologne Commentary on Space Law (**CoCoSL**) First Authors' Workshop held at the premises of the European Space Policy Institute (ESPI), in Vienna, Austria, on 10 – 11 January 2008. The meeting gathered twenty-three legal academicians, practitioners and scientists from twelve countries to discuss the application of the rule of law to activities in outer space, in particular the relevance and practicability of the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies ("Outer Space Treaty").

The Workshop was held in the framework of the Cologne Commentary on Space Law (**CoCoSL**), a joint undertaking between the Institute of Air and Space Law (ILWR) of the University of Cologne and the German Aerospace Center (DLR). This collaboration builds on the scientific proficiency of the Institute and the technical capacity of the DLR. Leveraging this unique partnership, the **CoCoSL** Project aims to provide a detailed commentary on the output of forty years of space law-making in the United Nations, in a format useful to academics, practitioners and technicians from the field of space law and beyond.

The output of the **CoCoSL** Project comprises a three-volume, provision-by-provision Commentary on the five United Nations treaties on outer space and the relevant major UN General Assembly resolutions. Written entirely in English, the **CoCoSL** Project will take a closer look at the written norms of space law, taking into account space law provisions developed outside the United Nations, as well as the associated State practice, with a special emphasis on the European perspective of space activities and space law.

The First Authors' Workshop involved members of the Project's Scientific Advisory Board, its Editors, and Authors of Volume I. Volume I of **CoCoSL** focuses on the 1967 Outer Space Treaty, which was adopted by the United Nations General Assembly in its resolution 2222 (XXI) and opened for signature on 27 January 2008. It entered into force on 10 October 1967, and as of 01 January 2007, has received 98 ratifications and 27 signatures. Volume I of **CoCoSL** will provide a historical overview of the Outer Space Treaty, including a provision-by-provision review as to its present-day applicability. Insights into the negotiations and drafting history, interpretation of the text of each Article, and future perspectives will also be considered. A total of twenty Authors will contribute to Volume I, with each substantive Article being discussed in a dedicated chapter.

Several people were instrumental in the organisation of the Workshop. Michel Jakob and Ségolène van den Steen of ESPI provided the logistical support that ensured the flawless execution of the Workshop. Julia Neumann, Nicola Rohner, Michael Gerhard and Julie Abou Yehia provided invaluable assistance as rapporteurs to the four sessions and round-table discussions thereafter. We are grateful to the members of the Scientific Advisory Board and to the Authors who participated in the Workshop. It was with the insight, dedication and energy of all the participants that the two-day Workshop resulted in such fruitful and exciting scientific discussions.

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Contents

Opening

The First Authors' Workshop of the Cologne Commentary on Space Law (**CoCoSL**) started punctually at noon on Thursday, 10 January 2008 with a welcome luncheon for all participants at the premises of the European Space Policy Institute (ESPI) in Vienna, Austria.

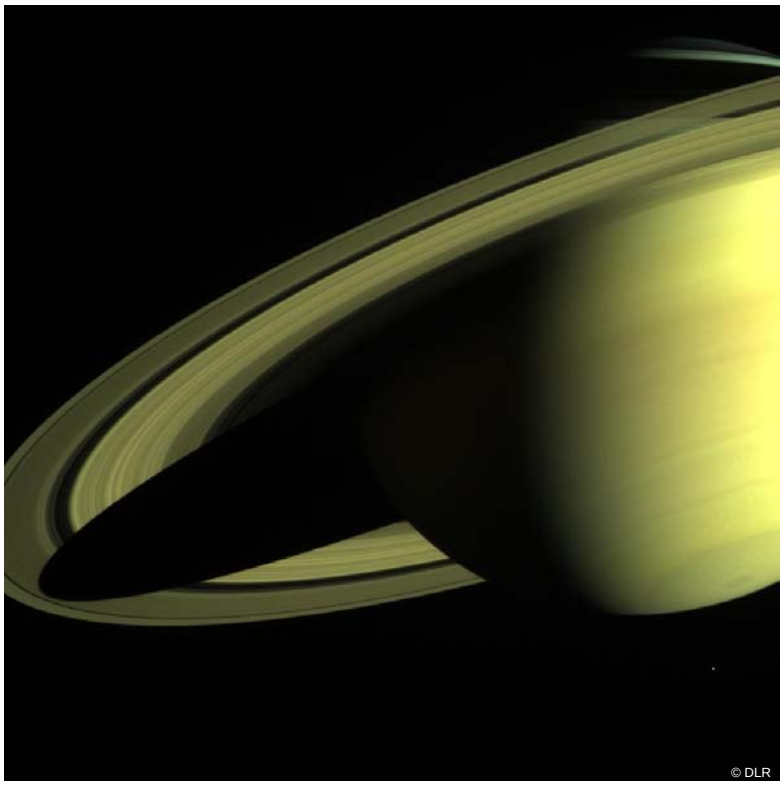
The Editors, *Prof. Dr. Stephan Hobe*, *Dr. Bernhard Schmidt-Tedd* and *Prof. Dr. Kai-Uwe Schrogl*, were on hand to welcome the participants. The informal atmosphere created by the buffet luncheon allowed participants, most of whom were acquainted, to renew working relationships and catch up on recent developments.

Prof. Dr. Kai-Uwe Schrogl, as Director of the host Institute ESPI, welcomed the participants to Vienna. He underscored the historic importance of the city of Vienna in the development of space law and policy, and also drew attention to the significance of an international space law event taking place at the premises of an Institute studying space policy. *Prof. Dr. Schrogl* highlighted the undeniable truth that space law and policy were inseparably intertwined, and that it was impossible to have a thorough study of one without a deep understanding of the other field. He concluded with the hope that the participants will find the discussions over the two days to be fruitful and thought-provoking, and that the Workshop will set the tone for the further progress of the **CoCoSL** Workshop.

Dr. Bernhard Schmidt-Tedd then addressed the participants, welcoming them to the Workshop both as an Editor of the Project and as a representative of the German Aerospace Center (DLR), the financial sponsor of the Project. *Dr. Schmidt-Tedd* emphasised the importance of the rule of law in managing activities in outer space, and also the place of a commentary on the written norms of space law in rapidly evolving context of technology and business. He then officially launched the Project website http://www.cocosl.com. *Dr. Schmidt-Tedd* briefly introduced the content on the website, including the **CoCoSL** forum, which allows participants to exchange ideas and messages on a chat platform. He encouraged all participants to engage themselves online in active discussions and expressed his conviction that the online forum will allow better communication between participants, thereby creating a strong esprit de corps amongst all participants. The full text of *Dr. Schmidt-Tedd*'s welcome address follows on the next page.

Prof. Dr. Stephan Hobe, acting in his capacity as academic director of the Project, then took the podium to give a brief scientific introduction to the Project. In addition to the high scientific standards of the Project, *Prof. Dr. Hobe* also underlined the importance of sound research and critical analysis so as to ensure a reliable and practicable commentary to the written norms of space law. He then reminded authors of the final deadline of 30 September 2008 – the last date on which authors are to submit their final manuscripts. *Prof. Dr. Hobe* also asked authors to raise any contentious issues arising in the course of the preparations of their contributions, especially in the case where there may be conflicting opinions between authors. He emphasised the importance of a coherent, scientific output, and also asked authors to raise any issues relating to logistics, scheduling difficulties or lack of resources. *Prof. Dr. Hobe* then opened the Workshop with Session 1.

Welcome Address: Dr. Bernhard Schmidt-Tedd, Editor, CoCoSL



Distinguished Members of the
Scientific Advisory Board,
Authors,
Colleagues and Friends,

I warmly welcome you, on behalf of DLR, to our First Authors' Workshop here in the lovely city of Vienna.

ESPI is certainly an ideal location for this event – not only because our former DLR colleague Prof. Dr. Kai-Uwe Schrogl is now leading the Institute, but also because of the close connection between ESPI and international policy development. A realistic interpretation of legal perspectives in international law is not feasible without considering its policy background.

DLR is affected by space law in many practical aspects, from the preparation of international agreements and papers for the United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) to the actual discussion in Brussels about a Code of Conduct in the areas of space traffic management, dual use and space debris.

Therefore, DLR is engaged in the **CoCoSL** Project from a very praxis-oriented perspective. We are looking forward to the results, which we believe will serve the application of space law in practice and be in line with the correct and realistic interpretation of the rule of law.

Since the first in formal **CoCoSL** meeting in Hyderabad, we have finalised, with the intensive support of Gérardine, many organisational and administrative issues.

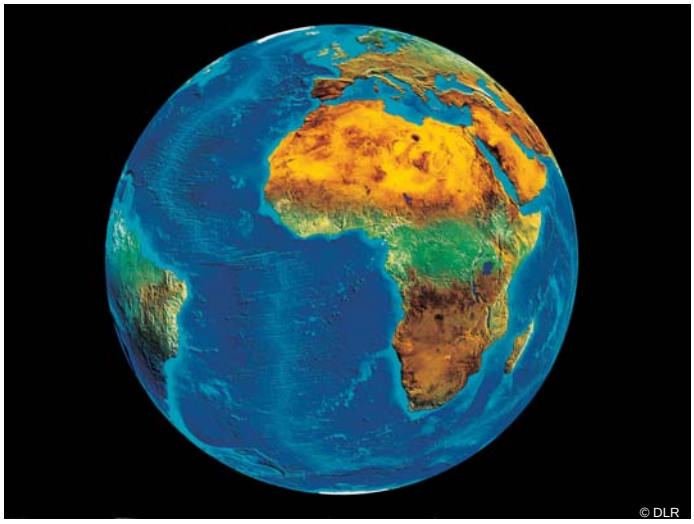
One visible outcome is the website of **CoCoSL**. There you will also find information about all the authors working on the Commentary. Let me take the occasion of this opinion event to go through the website with you in order to familiarise you with our common forum.

I hope it also contributes to the esprit de corps of the **CoCoSL** Project for all engaged in this ambitious undertaking.

Thank you.

Session 1: Outer Space Treaty – Historical Background, Preamble, Articles I and II

Thursday, 10 January 2008



Moderators:
Ambassador Dr. Peter Jankowitsch
Former Chairperson, UN COPUOS (Austria) and Member of the Scientific Advisory Board, **CoCoSL**
Dr. Gérardine Goh
Assistant Editor and Project Coordinator, **CoCoSL,** Senior Research Fellow, German Aerospace Center (DLR), Germany and Institute of Air and Space Law, University of Cologne, Germany

Rapporteur:
Ms. Julia Neumann
Legal Assistant, Ministry of Transport, Germany

Session 1: Outer Space Treaty – Historical Background, Preamble, Articles I and II was scheduled from 13:30 to 15:30. The programme was as follows:

13:30 **Historical Background of the Outer Space Treaty**
Prof. Dr. Stephan Hobe, LL.M.
Editor and Research Director, **CoCoSL,** Director, Institute of Air and Space Law, University of Cologne, Germany

14:00 **Preamble of the Outer Space Treaty**
Prof. Dr. Stephan Hobe, LL.M.
Editor and Research Director, **CoCoSL,** Director, Institute of Air and Space Law, University of Cologne, Germany
Mr. Niklas Hedman
Chief, Committee Services and Research, United Nations Office of Outer Space Affairs, Austria

14:30 **Article I – Freedom of Use / Benefits**
Prof. Dr. Stephan Hobe, LL.M.

15:00 **Article II – Non-Appropriation**
Assoc. Prof. Steven Freeland, Associate Professor of International Law, Faculty of Law, University of Western Sydney, Australia
Prof. Dr. Ram Jakhu, Associate Professor, Institute of Air and Space Law, McGill University, Canada

Historical Background of the Outer Space Treaty

Prof. Dr. Stephan Hobe, LL.M.

Editor and Research Director, **CoCoSL,** Director, Institute of Air and Space Law, University of Cologne, Germany

Presentation Content

1. Introduction and Negotiation Context
    a. Aftermath of the Second World War
    b. Dawning of the Space Era
    c. The Cold War
    d. Development of Spaceflight Technology
    e. Role and Function of the United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS)

2. Relevant Technological Developments
    a. Launch Technology
    b. Spacecraft
    c. Satellite for Earth Observation, Telecommunications and Direct Broadcasting
    d. Spin-Offs

3. Future Perspectives
    a. Scientific Exploration of the Inner and Outer Solar System
    b. International Cooperation
    c. Privatisation and Commercialisation of Space Activities
    d. New Actors and *Locus Standi*
    e. Space Tourism
    f. Space Debris and Space Traffic Management
    g. Space Safety Regulation
    h. Terrorism, Defence and National Security
    i. Dual-Use Technology

Rapporteur's Notes

The discussion on the historical background was conducted together with the discussion on the Preamble.

1. Substantive issues
   The author referred to the launch of Sputnik-1 in 1957 and the political situation of the Cold War at the time of negotiating and drafting the Outer Space Treaty. He pointed to the fact that there was a clear decision for the UN as a key player in the field. It should also be remembered that the major nations involved at the time (US and Soviet Union) were military space powers and thus obviously had military purposes in mind. At the same time, however, there was a growing awareness of independence by some states. It was noted that the development of the Treaty took place in a rather short period of time, from the launch of Sputnik-1 in 1957 to the final document of the Outer Space Treaty in 1967. Content-wise, the military interests were a strong influence, but also the balancing of "first world"- and "third world"-interests.

Preamble of the Outer Space Treaty

Prof. Dr. Stephan Hobe, LL.M.
Editor and Research Director, **CoCoSL,** Director, Institute of Air and Space Law, University of Cologne, Germany

Mr. Niklas Hedman
Chief, Committee Services and Research, United Nations Office of Outer Space Affairs, Austria

Presentation Content

(Text provided by *Niklas Hedman*)

The preamble to a treaty serves various purposes, including providing an overall political introduction to the treaty. Often, it provides the means of incorporating certain elements of political value that did not reach consensus in the negotiations leading up to the conclusion of the legally binding provisions of the treaty.

This chapter of the **CoCoSL** aims at analyzing the preamble to the Outer Space Treaty. As such, the role of the preamble in serving as a bridge between the 1963 Declaration (UNGA resolution 1962 (XVIII)) and the Outer Space Treaty will be examined.

The preamble, in its first five paragraphs, re-states the preambular part of the 1963 Declaration. An assessment of preambular paragraphs 2, 3, 4 and 9 of the Outer Space Treaty in relation to fundamental principles enshrined in relevant articles of the treaty will be undertaken in order to determine the role and purpose of the preamble to this particular treaty. Since the preamble also makes explicit reference to the 1963 Declaration but not to UNGA resolution 1721 (XVI) of 1961, it would be of interest to analyze the relationship between these two fundamental resolutions, given the importance of UNGA resolution 1721 particularly in light of current practice of States and intergovernmental organizations in registering space objects.

The notion of “peaceful purposes” is of particular interest given the political context and military implications to the negotiations leading to the adoption of the treaty 40 years ago, and in view of the importance of military applications in today’s space activities. The term “peaceful purposes” as used in the preamble and seen in the overall context of the UN Charter, deserves particular attention since it is nowhere repeated in the treaty provisions, except for Article IV which uses the qualification “exclusively for peaceful purposes”, but limited to the Moon and other celestial bodies. The term “peaceful exploration and use of outer space” as used in articles IX and XI should also be observed in this regard. It is also important to consider UNGA resolution 1884 (XVIII) of 1963, as referred to in the preamble, as well as other related resolutions in view of Article IV of the treaty, and to examine the overall negotiation history, since the 1963 Declaration does not include substantive elements on “non-peaceful” use of outer space.

A related issue of interest would be to assess the differences in use of terminology between the preamble and relevant articles in the Outer Space Treaty regarding the scope of application of the treaty, in view of the preamble referring to “outer space” without any additions relating to the Moon and other celestial bodies.

Coordination will be undertaken with **CoCoSL** authors of relevant chapters.

Rapporteur's Notes

1. Keywords to define
    a. Which keywords should be defined?
    "peoples", "States and peoples", "mankind", (<-> "countries" in Art. I);
    "peaceful purposes"
    b. Is this the first place in the OST in which these keywords appear?
    Yes; it was considered problematic, however, whether "peaceful purposes" should be defined in the Preamble as opposed to Art. IV OST.
    c. In which chapters are these keywords best defined?
    No consensus has been found regarding where to define/interpret "peaceful purposes"

2. Substantive issues
    a. Contentious issues:
        i. Are there any issues involved in the topic which are contentious?
        There is the problem of the meaning of "peaceful" in terms of "non-military" or "non-aggressive". "Peaceful" in the Preamble was considered as a broader term than when it is used in the context of Art. IV OST.

        Moreover, the character of a Preamble in an international treaty was discussed. Stephan Hobe referred to it as legally binding. Judge Vereshchetin pointed to its important role in the interpretation of a treaty, at the same time reflecting the political environment of the provisions of the treaty.
        Ram Jakhu asked what the achieved value of a Preamble was. In his view, the Preamble as well as the history provided tools for the interpretation of a treaty. Moreover, he pointed to the criticism of the generality of Article I and added that it was purposefully drafted broadly so as to keep it open for later developments.
        Judge Koroma emphasized that the Preamble reflected the political environment and purpose of a treaty and had an important role to play in the interpretation of a treaty.

        ii. Are there opinions expressed in this Chapter which differ from that expressed by another?
        No.
        iii. Do the views expressed conflict with the established academic and practical view?
        No.

    b. Future development
        i. In which direction will these issues develop?
        The interpretation of "peaceful" strongly depends on the military space capabilities.
        ii. Is the development at law comparable with the ambient developments in the field?
        This issue was not specifically addressed.

3. Overlap
    a. Overlap with other Chapters in Volume I
    Articles I, IV, IX, XI
    b. Reference to Volumes II and III
    None was specifically addressed.

4. Suggested page length
    No reference made

5. Other suggestions
    a. From other authors

    (It was brought forward that outer space could be used for military purposes according to the Treaty.)

    Ram Jakhu asked whether authors were named for each contribution. If that was the case, it would be OK to hold different positions in the different contributions. He did consider it a flawed approach to look only at Art. IV with regard to demilitarization.

    Moreover, he suggested looking at the US Senate hearings, which were important regarding the history of the Treaty.

    Sergio Marchisio remarked that where incoherencies in the interpretation/definition could not be resolved, these inconsistencies should be noted.

    Kai-Uwe Schrogl suggested interpreting “peaceful” in Art. IV OST. Methodologically, one should define a term wherever it appears for the first time, but only in Articles, not the Preamble.

    Niklas Hedman said that it was too early at this point to define “peaceful”. The question where to tackle the terminology should be clarified, however. He added that “exploration and use for peaceful purposes” was broader than the terminology used in Art. IV.

    Bernhard Schmidt-Tedd emphasized that the Commentary should be an interpretation of the Treaty by independent authors that could hold their own views.

    Ram Jakhu added that it was crucial in this respect whether the Articles were published under the name(s) of the author(s).

    b. From members of the Scientific Advisory Board

    Judge Vereshchetin had a methodological remark in that he considers it impossible to provide definitions in the contributions where even the drafters of the Treaty could not do so. Also, he raised the question of whether the views presented in the contributions would reflect different views or whether it was intended to present only the respective authors’/author’s view.

    José Monserrat Filho pointed to the Brazilian proposal of the Outer Space Treaty. He also mentioned that one should go back and ask why the space question was brought to the General Assembly in the first place.

    Judge Koroma suggested not speaking of the OST as the “Magna Charta” of space law but rather as the “universal charter”, since the term Magna Charta was more of a national character.

    It was agreed that contributions should be made so as to reflect the law “as it is”.

Article I – Freedom of Use / Benefits

Prof. Dr. Stephan Hobe, LL.M.
Editor and Research Director, **CoCoSL,** Director, Institute of Air and Space Law, University of Cologne, Germany

Presentation Content

1. Introduction and Drafting History
    a. Objectives and significance of the provision
    b. Regulation of other common spaces: seabed/high seas; Antarctica; airspace

2. Keywords in Article I
    a. “province of all mankind” (para. 1)
    b. “free (for exploration and use” (para. 2)
    c. “discrimination” (para. 2)
    d. “free access” (para. 2)
    e. “facilitate” (para. 3)

3. Interpretation of Article I
    a. Scope of application: “outer space, including the Moon and other celestial bodies”
    b. Rights Granted
        i. Freedom of Exploration and Use
        ii. Exploration and its relation to scientific investigation
        iii. Use: Exploration vs. Exploitation
        iv. Freedom of use for military activities: Inter-relation with Articles III and IV OST, especially with regard to the use of force in outer space
        v. Commercial use of outer space and its relation to various actors
    c. Freedom of access
    d. Freedom of scientific investigation (Art. I para. 3 OST)
    e. Limitations to granted rights
        i. The “common benefit” clause (Art. I para. 1 OST)
        ii. “for the benefit and in the interests of all countries”
        iii. “province of all mankind”
        iv. Limitations outside Art. I OST: Articles II, IV para. 1, V, VI, VII , IX, XI OST
    f. Legal consequences of Art. I para. 1 OST
        i. Binding character of the “common benefit” clause
        ii. Prohibition of national monopolisation or appropriation
        iii. Prohibition of discrimination (Art. I para. 2 OST)
        iv. “to facilitate and encourage international cooperation” (Art. I para. 3 OST)
    g. Legal rights and obligations resulting from Art. I OST
    h. Legal and practical significance
    i. Subsequent State practice
    j. Subsequent practice of the international community

4. Future Perspectives
    a. Work of the ILA
    b. 1996 UN GA Space Benefits Declaration
    c. Possibility of a World Space Organisation
    d. Problems and recommendations

Rapporteur's Notes

1. Keywords to define
   "benefits", "province of all mankind", scientific investigation"

2. Substantive issues
   a. Contentious issues:
      i. Are there any issues involved in the topic which are contentious?
      The value of Art. I para. 3 OST was discussed. Judge Vereshchetin asked whether the purpose was to underline international cooperation. He pointed to the wording "shall", which in international law referred to an obligation, and asked whether such obligation to cooperate referred only to scientific investigation.
      Stephan Hobe was of the opinion that scientific investigation was only part of the broader term "exploration".
      Judge Vereshchetin replied by asking why the provision had a third paragraph, if that was the case. He added that form a reader's perspective, it would be expected to get answers from the Commentary to these questions.
      Ram Jakhu was of the view that it remained as a remnant of earlier drafts. Moreover, Art. III provided responsibility for international cooperation.
      Steven Freeland noted that paragraph 2 spoke of "in accordance with international law" already. Paragraph 3 in his opinion also went back to the drafting history. There was on the one hand side the need to stress that, and on the other hand no one wanted to really take the paragraph out.
      Stephan Hobe was of the view that both paragraphs 2 and 3 needed to be seen in the light of paragraph 1, which speaks of "province of all mankind".
      Gérardine Goh mentioned that paragraph 3 had to be seen in analogy to the 1959 Antarctic Treaty, which provided the background to Article I paragraph 3 OST.

      Kai-Uwe Schrogl drew the attention to the fact that the basic question in Article I was whether there was a duty to cooperate. He was of the view that there is no such obligation. Also the 1996 Space Benefits Declaration was indicative of that fact.

      Ram Jakhu referred to Articles III, X and XI and concluded that there was a duty to cooperate, since one could not "promote" international cooperation unless one was obliged to.

      José Monserrat Filho mentioned the problem of how to define the terms "benefits" and "province of all mankind".
3. Overlap
   a. Overlap with other Chapters in Volume I
      Art. III, X, XI (not exhaustive).
   b. Reference to Volumes II and III
      Space Benefits Declaration 1996

4. Suggested page length
   No reference made

5. Other suggestions
   Judge Koroma noted that if the commentary was going to be credible, it would have to reflect different views. With regard to the interpretation of paragraph 3 he was of the view that it allows for private and state cooperation.
   Also Ambassador Jankowitsch was of the view that the Commentary should reflect the different opinions that exist.

Article II – Non-Appropriation

Assoc. Prof. Steven Freeland
Associate Professor of International Law, Faculty of Law, University of Western Sydney, Australia

Prof. Dr. Ram Jakhu
Associate Professor, Institute of Air and Space Law, McGill University, Canada

Presentation Content

1. Article II Outer Space Treaty

‘Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.’

2. Proposed Structure of Chapter
    a. Historical Context
    b. Interpretation and analysis of Article II
    c. Other Treaties / Subsequent Practice
    d. Implications of the Meaning of Article II
    e. Suggestions for the Future

3. Historical Context
    a. How States (purport to) appropriate ’territory’
    b. The Need for Regulation
    c. Drafting History of Article II

4. Interpretation and Analysis of Article II
    a. Traditional International Law Methodology
    b. Application of the VCLT principles – articles 31 and 32
    c. ‘national’: governmental (public) and/or private ?
    d. ‘appropriation’: acquisition or taking to oneself to the exclusion of others permanently
    e. ‘use’: distinction between "use" and "appropriation by use"
    f. ‘occupation’: distinction between "occupation" and "appropriation by occupation"
    g. ‘any other means’ : broad coverage; non-sovereignty & unknown environment
    h. ‘exploitation’:”exclusionary rights of way or the monopolistic exploitation”?
    i. ‘private appropriation’: is it allowed? If yes, it might defeat the broad purpose of the Article II (as well as Article I, para 1 (common interest) & para 2 (freedom))
    j. ‘natural resources’ : does non-appropriation cover natural resources?
    k. Other forms of quasi ‘property rights’: is it necessary to have property rights in order to ‘use’ and ‘exploit’ outer space & natural resources?

5. Other Treaties / Subsequent Practice
    a. Moon Agreement

i. Art. 11 (1) CHM - narrow concept & Art. 11 (2) prohibits appropriation, but Art. 11 (3) the surface, the subsurface, & any part thereof, natural resources *in place* NOT to be become exclusive property
ii. Art. 6 (2) right to collect and remove samples of mineral and other substances, and use them for scientific investigations in support of missions
iii. Art. 11 (5) is the exploitation allowed before the envisioned international regime created? The regime to govern the exploitation of the natural resources when such exploitation *is about to become feasible*.
iv. flexible provisions allowing some appropriation * directly relevant model

b. Law of the Sea Convention
   i. US will most likely ratify the 1982 LOS Convention, CHM principle remains
   ii. *an interesting and some what relevant model *

c. Geostationary Orbit
   i. Detailed rules allow all to use (not to appropriate) this international resource - a global common, irrespective of the fact whether one acquires right to use through first-come first-served or *a priori allotment plans* - guaranteed access *an interesting & alternative model *

d. Assessment of these three models

6. Implications of the Meaning of Article II

Legal:
Future regime and compatibility with Art. II
How to allow exploitation without appropriation?
Should Art. II be changed?
Practical:
Need for some sort of international collaborative exploitation or licensing system, procedures and implementing organization.
Ethical / Philosophical Considerations
How to avoid conflict and ensure 'common benefit'?
Should private appropriation – exploitation be for public good?
Sustainability exploitation?

7. Suggestions for the Future
   a. Should we make some suggestions for the future course?
   b. If yes, should they be in the form options?
   c. Any other idea?

Rapporteur's Notes

1. Keywords to define
   "national", "appropriation", "use", "occupation", "any other means"

2. Substantive issues
   Frans von der Dunk asked whether it was suggested that Art. II does not refer to exploitation because exploration could not be exploitation.

   Kai-Uwe Schrogl pointed to the fact that one should not just look at appropriation on the Moon but also at the "quasi"-appropriation of orbital positions, which would provide the link to ITU law.

Anatoly Kapustin mentioned the problem of defining “appropriation”, since that term might not apply to private companies conducting commercial activities in outer space.

Judge Koroma stated that he supported the Common Heritage of Mankind principle, but that he at the same time thought it more important to refer to the res communis character of outer space. Whereas the principle of sovereignty still applied, the territoriality principle does not apply.

3. Overlap
    a. Overlap with other Chapters in Volume I
       Art. VI
    b. Reference to Volumes II and III
       Articles 6, 11 MOON

4. Suggested page length
   No reference made

5. Other suggestions
   (From other authors and members of the Scientific Advisory Board)

   Judge Vereshchetin remarked that Art. II touched upon the question of national versus private activities. According to a Russian TV programme, there were more than 3 million people worldwide that already bought “property” on the Moon. He was of the view that one should make a clear statement, giving a clear answer to the effect that Art. II was violated if a State did not take measures to prevent such illegal behaviour. The purported private appropriation should be addressed. One should maybe draw even the attention of the UN General Assembly to this issue.

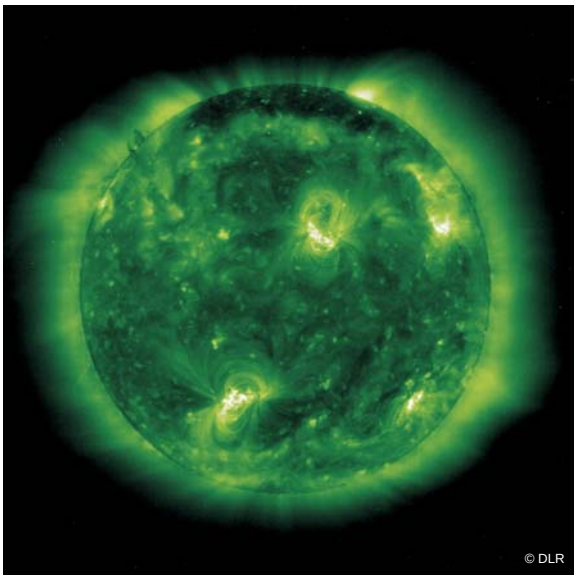
   Frans von der Dunk mentioned that there already were certain developments by States trying to stop such conduct. He specifically referred to a Dutch company, which was forced by the Dutch Ministry of Internal Affairs to remove announcements to such end from its website. In China, he said, someone was held guilty of fraud for selling property on the Moon.

   Ram Jakhu added that the US government stated that such fraud activities were not legal. One should follow this discussion with regard to state practice.

   Olivier Ribbelink drew the attention to the debate on whether asteroids were included in the term celestial bodies.

Session 2: Outer Space Treaty – Articles III – VI

Thursday. 10 January 2008



Moderators:

Judge Abdul Koroma

Judge of the International Court of Justice (Netherlands) and Member of the Scientific Advisory Board, CoCoSL

Dr. Bernhard Schmidt-Tedd

Editor, CoCoSL and Head, Legal and Business Support: Space Agency, German Aerospace Center (DLR), Germany

Rapporteur:

Dr. Nicola Rohner

Corporate Development and External Relations, German Aerospace Center (DLR), Germany

Session 2: Outer Space Treaty – Articles III – VI was scheduled from 16:00 to 18:00. The programme was as follows:

16:00 **Article III – Application of International Law**
Dr. Olivier Ribbelink, Head, Research Department, T.M.C. Asser Institute, the Netherlands

16:30 **Article IV – Military Uses of Outer Space**
Prof. Dr. Kai-Uwe Schrogl, Editor, CoCoSL, Director, European Space Policy Institute, Austria
Ms. Julia Neumann, Legal Assistant, Ministry of Transport, Germany

17:00 **Article V – Rescue of Astronauts**
Prof. Dr. Frans G. von der Dunk, Professor of Space Law, Telecommunications and Space Law Program, University of Nebraska, USA
Dr. Gérardine Goh
Senior Research Fellow, German Aerospace Center (DLR), Germany and Institute of Air and Space Law, University of Cologne, Germany

17:30 **Article VI – International Responsibility for National Activities**
Dr. Michael Gerhard, Assistant to the Executive Board, German Aerospace Center (DLR), Germany

General overview remarks concerning CoCoSL:

1. Common wording needed (suggestion to follow to the UN nomenclature when referring to UN treaties)
2. Attention to be paid to translations into other languages and subsequent change in details of definitions and possible (mis-)interpretations
3. If an author refers to other treaties and articles he/she should always respect the historical and political contexts of the initial formulation

Article III – Application of International Law

Dr. Olivier Ribbelink
Head, Research Department, T.M.C. Asser Institute, the Netherlands

Presentation Content

1. **Article III OST**
   "States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international co-operation and understanding.**"**

2. **Article III OST**
   a. Today often treated as less relevant article
      i. Earlier literature different (cf Jenks; Lachs)
   b. Interesting aspects
      i. history & context
      ii. general international law
      iii. Charter United Nations
      iv. relation to other articles OST

3. **Article III OST**
   a. Introduction
      i. significance then & now
      ii. context (Cold War) & intention
      iii. *lex generalis – lex specialis*

   b. History (role of UN)
      i. GA Res 1721 (XVI); 20 Dec 1961
      ii. GA Res 1802 (XVII); 14 Dec 1962
      iii. GA Res 1962 (XVIII); 13 Dec 1963
      iv. Declaration of Legal Principles (etc); para.4

   c. Interpretation
      • States Parties to the Treaty <u>shall</u>
      • <u>carry on activities in the exploration and use</u> of outer space, including the Moon and other celestial bodies,
      • <u>in accordance with international law, including the Charter of the United Nations</u>,
      • <u>in the interest of maintaining international peace and security and promoting international co-operation and understanding</u>

3.1 General

– "shall carry on" ["doivent s'effectuer"]
  – binding obligation (brief)

– "carry on activities in the exploration and use of outer space"
  – cf history wording GA Res 1721 (XVI) (brief)

3.2

"in accordance with international law, including the Charter of the United Nations"

– What does apply and what does not?

- international law *in toto*?
- Charter UN *in toto?*
- customary int. law?
- general principles?

– Applicable int. law (general agreement)
- good faith
- pacta sunt servanda
- sovereign equality of States
- non-intervention & non-agression
- ban on the use of force
- right to self-defence
- obligation peaceful settlement international disputes

– What about other, later, and future, fields & developments?
- int. human rights law
- int. environmental law
- int. economic law (WTO)
- int. criminal law
- private int. law
- subsequent practice UN (& other IOs)?
- Other?

– Int. law is *ipso iure* applicable extra-terrestrially. The *relevant* rules of int. law must be taken to regulate international relations wherever such relations take place, on land, territorial waters, and the high seas, in air space and in outer space.

– Prof. Goedhuis (1967)

3.3

–By accepting the Charter as part of contemporary law applicable to OS and celestial bodies, one has to accept it as it is today, incl. all the progress made during the years it has been in operation. Thus the obligation to conform with the Charter … implies not only the application of provisions of int. law as defined by it but also all those that have grown as a result of the further development of the UN and subjected to a new and more up-to-date interpretation.

–None of this, however, implies an automatic extension to OS and celestial bodies of "int. law incl. the Charter" *in toto.*

–Manfred Lachs, 1972

– Applicable from Charter UN
- maintenance int. peace and security
- sovereign equality of States
- non-intervention & non-agression
- ban on the use of force
- right to self-defence
- obligation peaceful settlement international disputes

– Applicable from Charter UN
- Art.1 (purposes)
- Art.2 (principles), esp. 2.4 (ban on use of force)
- Art.11 (functions & powers GA)
- Art.51 (right of self-defence)
- Artt.55 & 56 (int. economic and social co-operation)
- Chapter VI (pacific settlement disputes)
- Chapter VII (int. peace and security)
- Art.103 (conflict Charter & other obligations)
- Other? > Art.2.7? Art.13?

– Not applicable from Charter UN?
  - Art.2.7 (domestic jurisdiction)?
  - Chapter XI (non-self-governing territories)
  - Chapter XII (Trusteeship system)

3.4
"in the interest of ["en vue de"] maintaining international peace and security and promoting international co-operation and understanding"

– French text slightly different

– two parts:
  - maintaining int. peace and security
  - promoting int. co-operation & understanding

• "maintaining int. peace and security"

– what role for the Security Council?

– to what extent will e.g. Chapter VII apply?

• "promoting int. co-operation and understanding"

– essential principles in Charter UN & 1970 Friendly Relations Declaration

3.5 Relation to other articles OST

• co-operation and understanding

– Art.I para.2 and para.3
• "on a basis of equality and in accordance with int. law"
• "facilitate and encourage int. cooperation"

– Art.IX
• "shall be guided by the principle of co-operation and mutual assistance" … "undertake appropriate int. consultations"

– Art.X
• "promote int. co-operation"

• int. peace and security

– Art.IV

Remaining question(s):
1. Do similar references exist in other international instruments?
2. e.g. Art.1.F Refugee Convention
3. others?
4. …?

Rapporteur's Notes

1. **Keywords** to define:
   - "activity" and "human activity" in outer space
   - Attention to be paid to translations! (e.g. "in the interest of" ↔ "en vue de" – not the same meaning)

2. **Remarks** to presentation:
   - Author: few articles refer to Article III
   - Author identifies and discusses three sections (see charts):

    - What does apply to Article III: international law; UN-charter… (see charts)
    - What does not apply
    - What about expected future laws (human rights, environmental…., charter)
- Relations to Articles I, IX, X of OST
- Open questions: Do similar references exist in other international instruments?

3. **Discussion** / Commentaries / suggestions to presentation:
    - Does it make sense to ask if international law is applicable?
    - It should be discussed and defined “activity” and “human activity” in outer space
    - Articles of the charter do not apply in some cases
    - Would human rights apply to / involve Article III?
    - Practice/history: no legal regulations after the first space activities and the first launch: all activities should first apply to international law in general
    - The difference between two schools of international law: treaty-based / practice vs. jurisprudential was raised
    - “general principles” and “non-aggression-law” has been confused
    - International law applies on earth or near earth (not in far outer space)
    - Law applies to *human activity in space* (not to outer space itself)
    - Author asked to explain/suggest an approach to Article III
    - Author asked to include resolutions of the UN and the concept of the international abuse of rights
    - So as to avoid the perception that the listed sources and fields of international law is exhaustive, the author is asked to use international law *only* in examples (instead of systematic listing and discussing).
    - Why is Article III rarely used as reference?
    - Which historical negotiations are applicable to Article III?
    - Self defense should apply to outer space and should be treated in the Chapter
    - Attention when comparing “international peace” and “security” (Chapter VII of UN Charter): their definitions have been formulated in different times. Which was the understanding of “security” at that time and what changed up to now? (e.g. “international security” is not the security of states but a kind of “conflict security”; e.g. it was never meant “food security” but nowadays the concept is also all-embracing picked up).
    - Hint: 30 years ago a manual was written (by Jasentuliyana / Lee), especially Vol. IV of that manual should be used as source of information (without repeating it).
    - Interpretations should be done with a view on State practice
    - UN GA Resolutions should be mentioned

Article IV – Military Uses of Outer Space

Prof. Dr. Kai-Uwe Schrogl
Editor, **CoCoSL,** Director, European Space Policy Institute, Austria

Ms. Julia Neumann
Legal Assistant, Ministry of Transport, Germany

Presentation Content

Slide 1: Outline
1. Introduction
2. Negotiations and Drafting History
3. Interpretation of Provision

3.1 Ban of Nuclear Weapons or any other kinds of Weapons of Mass Destruction
3.1.1 *„not to place in orbit around the Earth nuclear weapons or any other kinds of weapons of mass destruction“*
3.1.2 *„install such weapons on celestial bodies, or station such weapons in outer space in any other manner“*

3.2 Peaceful Uses of the Moon and other Celestial Bodies
3.2.1 Moon and other celestial bodies
3.2.2 *„Exclusively for peaceful purposes“*
3.2.3 Prohibition of the *„establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies“*
3.2.4 Use of military personnel
3.2.5 Use of any equipment or facility necessary for peaceful exploration

3.3 Article IX in the Context of Article IV
3.4 Interrelation with other Space Law Provisions
3.5 Subsequent State Practice and Development of Military Doctrines

4. Future Perspectives

Slide 2: Context
- Article IV provides for partial non-weaponization (WMD) in Earth orbit and an even stricter regime on the Moon
- Conventional weapons allowed in Earth orbit, but no real arms race in outer space so far (albeit prolific testing during the 1960‘s and 1970‘s)
- Article IV is the starting point for the discussion of the meaning „peaceful uses“
- Chinese ASAT-test and missile defense: hot topics in the current political debate, but no relevance for Article IV
- New relevance in the context of the current space exploration initiatives
- Up to now, State practice in accordance with provision

Slide 3: Drafting History

	Outer Space Treaty (OST) 1967	Moon Treaty (MT) 1979/84
Article I Antarctic Treaty 1959	Article IV (2)	Article 3

1. Antarctica shall be used for peaceful purposes *only*. There shall be *prohibited*, inter alia, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons. 2. The present treaty shall not *prevent* the use of military personnel or equipment for scientific research or for any other peaceful purposes.	The Moon and other celestial bodies shall be used by all States Parties to the Treaty *exclusively* for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be *forbidden*. The use of military personnel for scientific research or for any other peaceful purposes shall not be *prohibited*. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited.	1. The Moon shall be used by all States Parties exclusively for peaceful purposes. 2. Any threat or use of force or any other hostile act or threat of hostile act on the Moon is prohibited. It is likewise prohibited to use the Moon inorder to commit any such act or to engage in any such threat in relationto the Earth, the Moon, spacecraft, the personnel of spacecraft or manmade space objects.4. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on the Moon shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration and use of the Moon shall also not be prohibited.

Slide 4: Drafting History

Article I Limited Test Ban Treaty 1963	Article IV (1) OST 1967	Article 3 (3) MT 1979/84
1. Each of the Parties to this Treaty undertakes to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control: (a) in the atmosphere; beyond its limits, including outer space; (…)	States Parties to the Treaty undertake *not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.*	States Parties shall not place in orbit around or other trajectory to or around the Moon objects carrying nuclear weapons or any other kinds of weapons of mass destruction *or place or use such weapons* on or in the Moon.
UNGA Res. 1884 (XVIII) of 1963		
2. Solemnly calls upon all States: (a) To *refrain from placing* in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, installing such weapons on celestial bodies, or stationing such weapons in outer space in		

any other manner;

Slide 5: Meaning of the Terms

	non-peaceful	Peaceful	exclusively peaceful
weapons	WMD	conventional weapons	no weapons (specifically mentioned: testing)
conduct	aggression (UN Charter)	non-aggressive	no harmful interference
use		military use	no military bases, installations and fortifications no testing of weapons no military manoeuvres military personnel military equipment

Slide 6: Uses Allowed and Not Allowed

	explicitly prohibited / Area	implicitly permitted / Area
Art. IV (1) OST	WMD / Earth orbit	military use (e.g. telecommunications, navigation, Earth observation, transit of weapons up to WMD), placement of conventional weapons / Earth orbit
Art. IV (2) OST	military use / Moon and CB	military personnel, equipment/facility / Moon and CB
Art. 3 Moon Treaty	Military use, including even threat or use of force / Moon	military personnel, equipment/facility / Moon

Slide 7: Issues for Discussion and Exchange

ad 2.: any further Treaties [chart 1] as sources for Art. IV OST?
ad 3.1: meaning of „weapons“ and „weapons of mass destruction“
ad 3.1: meaning of „install“ with regard to destruction of asteroids by WMD
ad 3.2: meaning of „exclusively for peaceful purposes“ [chart 2]
ad 3.2: sentence „the use of military personnel...“ only related to Moon? Context!
ad 3.2: meaning of „any equipment“ including military equipment?

ad 3.3: coordination with contributions on Articles IX, XI OST (as well as with contribution on Preamble)

Rapporteur's Notes

1. **Keywords** to define:
    a. "peaceful use", "peaceful purposes", "exclusively peaceful", "non-peaceful", "aggressive"
    b. (Definitions placed here or maybe in article III; different opinions in the audience)
    c. "military person" ≠ "acting as military person"

2. **Remarks** to presentation:
    a. Many links to other treaties (e.g. Antarctic Treaty, Art.I; Moon Treaty, Art. III etc. see table in charts)

3. **Discussion** / Commentaries / suggestions to presentation:
    a. Unanswered: what about military activities like i.e. destroying asteroids? All military activities are excluded here
    b. Recommendation: do not put the MOON and the OST on the same level as the MOON is only valid for a number of states
    c. Relevance of Art. IV? Military actions are regulated by international law
    d. Relevance of the same provision in Antarctic Treaty
    e. What about the use of national laws? In practice national laws are used to write international law (Example given with Russian legislation)
    f. Commentary should not touch upon political problems or raise conflicts
    g. "military person" ≠ "acting as military person"
    h. Definitions around "peaceful use", "non-peaceful use" etc. maybe better in Art. III?
    i. Attention to context of phrases; e.g. "use of military personnel" – only on the Moon?
    j. Attention to context / historical situation of treaties when taking them to explain another treaty
    k. It is not suitable to mention the case of ballistic flight

Article V – Rescue of Astronauts

Prof. Dr. Frans G. von der Dunk
Professor of Space Law, Telecommunications and Space Law Program, University of Nebraska, USA

Dr. Gérardine Goh
Senior Research Fellow, German Aerospace Center (DLR), Germany and Institute of Air and Space Law, University of Cologne, Germany

Presentation Content

Slide 1: Article V, OST
- Key elements
  - "States (...) shall regard astronauts as envoys of mankind in outer space"
    - Astronauts in distress on earth
    - Astronauts (in distress?) in outer space
    - Obligation to provide information
  - Later elaboration by way of 1968 Rescue & Return Agreement, adding space objects

Slide 2: Negotiation & drafting
N.B.: Astronauts ... & cosmonauts
- UNGA Resolution 1962
  - Principle 9
  - First 3 paras
- Travaux preparatoires
  - *Yet to be investigated*
- Commentaries
  - *Yet to be investigated*

Slide 3: Further elements
- Interpretation of provision
  - "Envoys of mankind"
    - Ref. "diplomatic envoy"
    - Space tourism
  - Other provisions
    - Astronauts in distress on earth
    - Astronauts (in distress?) in outer space
    - Obligation to provide information
  - Subsequent developments & practice
- Future perspectives

Slide 4: Reading list
- Chapters (hand)books
- Proceedings IISL Colloquia
- Journal of Space Law
- Zeitschrift für Luft- und Weltraumrecht
- Space Policy
- Air & Space Law
- Annuaire Française

Rapporteur's Notes

1. **Keywords** to define:
   - "envoys of mankind"
   - "Astronauts" ↔ "cosmonauts"

2. **Remarks** to presentation: -

3. **Discussion** / Commentaries / suggestions to presentation:

   - wording "envoy" was defined by Russians. At that time not liability but safety of the people sent to space was meant, which was the most important thing. Therefore was established "envoy of mankind". But it did not give the envoys a special legal status
   - Original wording is "…they are *regarded as* envoys of mankind" and not they *are* envoys of mankind, but there still is an obligation
   - Space tourists should not be treated as "envoys of mankind" as the historical meaning is different; (always include classical view and background)
   - What about a space tourist bringing an own experiment to space?
   - Link OST ↔ ARRA? Does Art.V follow the ARRA or is it based on it?

Article VI – International Responsibility for National Activities

Dr. Michael Gerhard
Assistant to the Executive Board, German Aerospace Center (DLR), Germany

Presentation Content

Slide 1. Introduction / Negotiations and Drafting History

1. Introduction
    a. Art. VI in the context of the OST principles
    b. differentiation responsibility / liability
2. Negotiation and Drafting History
    a. Principle 5 UNGA Resolution 1962 (XVIII)
    b. compromise US / USSR
    c. IDI Declaration

Slide 2. Interpretation of Provisions

1. Paragraph 1
    a. reference to delimitation issue
    b. interpretation of „activities in outer space“: inclusion of launching activities, suborbitals and sounding rockets?
    c. national activities vs. activities of international organizations
    d. governmental agencies and non-governmental entities
    e. responsibility for governmental activities
    f. responsibility for non-governmental activities
        i. discussion on which State is responsible (“appropriate State discussion”)
        ii. including controlling interest etc. problems in private activities
        iii. responsibility / liability / jurisdiction
        iv. ILC report on international responsibility
    g. conformity of national activities with OST provisions

2. Paragraph 2
    a. activities of non-governmemtal entities and appropriate State: reference to para. 1
    b. authorization
        i. necessary and recommended contents
        ii. implementation (National Space Legislation or others)
    c. continuing supervision
    d. Art. VI para. 2 as basis for National Space Legislation – Building Blocks (authorisation, supervision, registration, state indemnification)

3. Paragraph 3
    a. International activities / Art. XIII
    b. -> suggestion: new headline “International responsibility for activities in outer space”
    c. reference to LIAB and REG provisions

Slide 3. Future Perspectives

- prospects of National Space Legislation
- harmonsiation issues
- licence shopping
- transfer of ownership

Rapporteur's Notes

1. **Keywords** to define:
    a. "responsibility" ↔ "liability" (and "jurisdiction"?)
    b. "governmental agencies", "non- governmental entities"
    c. "activities in outer space"

2. **Remarks** to presentation:
    a. Problems in translations due to above mentioned wording
    b. (Therefore problem of different possibilities in the interpretation of the provisions)

3. **Discussion** / Commentaries / suggestions to presentation:
    a. General technical issue (concerning wording in the whole **CoCoSL**): difference between "paragraphs" or only "sentences" in the articles.
    b. Suggestion: refer to UN rules (Gérardine, please send UN-nomenclature to all authors)
    c. Common opinion of the participants: if there is a block of sentences like in Art. VI , talk about "sentences" and not of "paragraphs". Otherwise the reference from one sentence to another could miss
    d. Referring to the phrase "Space legislation and other ways" – please explain "other ways" (will be included in "state practice")
    e. Example Arianespace?

Workshop Dinner

Gasthaus “Zu den 3 Hacken”
Singerstrasse 28, A-1010 Vienna

Dinner Address: Judge Abdul Koroma, Judge of the International Court of Justice and Member of the Scientific Advisory Board, CoCoSL

Full text not available

Judge Koroma expressed his great interest in the scientific work of the participants of the **CoCoSL** Project. He reminisced about the importance of the rule of law in the evolution of international space law, including the contributions of former Judges of the ICJ, such as Judge Manfred Lachs, to the development of international space law as it is today. Judge Koroma also referred to the significance of law in the operation and execution of space activities today, from telecommunications to direct broadcasting. He referred in particular to the commercialisation of space activities, and highlighted the essential nature of the law in high-technology, high-risk and high-capital fields such as the exploration and use of outer space.

Judge Koroma thanked the Editors of the **CoCoSL** Project for the invitation to contribute on the Scientific Advisory Board of **CoCoSL**, and for the organisation of the Workshop. He expressed his expectation that much scientific progress will come out of the Workshop and the Project, and especially his pleasure at the fact that after so many years, an undertaking has finally come about to comment on international space law.

Dinner Address: Ambassador Dr. Peter Jankowitsch, Chairperson, Advisory Board, Austrian Aerospace Agency and Member of the Scientific Advisory Board, CoCoSL

Full text

Dear Kai-Uwe,
Distinguished authors,
Distinguished Judges of the ICJ

Let me at the outset express my feelings of pleasure and satisfaction that you have chosen Vienna and ESPI as the venue of the first Authors Workshop of the Cologne Commentary on Space Law, a pathbreaking and innovative international project which will be the first-ever consolidated and comprehensive set of commentaries on the existing body of statutory, written space law and will therefore certainly shed much new light on the provisions of the international conventions, principles and declarations it will examine.

I have no doubt that the result of your work, which will be performed by such an impressive group of highly competent experts and practitioners, many of whom I had the pleasure to hear ,to read and to admire in the past, will be of great and lasting benefit. It will be of great and lasting benefit first of all to all those who, in the future, will be called upon in various settings and instances to interpret and apply provisions of these space treaties and principles. This will, not least, also be the case for the International Court of Justice whose decisions, according to Article 38 of its Statute shall also be based "on the teachings of the most highly qualified publicists of the various nations" as a subsidiary means for the determination of rules of law.

As many of you here are aware, Austria and Vienna have over the years developed a strong and permanent commitment to the international efforts to promote the peaceful uses of Outer Space, including efforts to extend the rule of law into Outer Space. It was part of this commitment to offer Vienna with its central geographical location and its modern international infrastructure to the type of meeting you are holding today and tomorrow. And indeed from an early moment in the process of international cooperation in matters of Outer Space Vienna served as the site of important global meetings and conferences beginning in 1968 with the first UN Conference on Outer Space to be followed, to date, by two more of such meetings, namely UNISPACE 82 and lately UNISPACE 99.

Another part of our commitment was strong support for the UN Committee on the Peaceful Uses of Outer Space which Austria chaired first in the delicate political climate of the Cold War for many years.

Vienna's and Austria's role in international space cooperation were further underscored by a first meeting of COPUOS in Vienna in 1977 and a second one in Graz in 1991 and finally by the decision of the Secretary General of the United Nations, at the time Boutros Boutros Ghali, to make Vienna the HQ of OOSA, the UN Office of Outer Space Affairs.

This Office has since then conducted all of its activities, including new ones like SPIDER, a brand new UN Platform for Space-based Information for Disaster Management and Emergency Response from the Vienna International Centre.

Opened in 1979 this vast international complex, whose building was financed by Austria is home today to such important international organisations as the IAEA, UNIDO ,the CTBTO, the Prep. Commission for the Comprehensive Nuclear Test Ban Treaty Organisation and various other UN Agencies like the UN Office on Drugs and Crime, which today also includes special units to counter terrorism.

We are also proud that today ESPI, as a nascent European Think tank on matters of European and global space policy ,since last September placed under the dynamic leadership of Kai Uwe Schrogl, is one of the latest additions to this network of international organisations in Vienna.

Since the establishment of OOSA in Vienna all meetings of COPUOS and its two Sub-Committees are also conducted at the VIC, in particular meetings of the Legal Sub-Committee that were formerly held in Geneva. I am pleased to recognize here one of its former chairs in the person of Professor Sergio MARCHISIO.

Vienna is thus hoping to continue and to confirm its role as one of the birth places of modern international law, a role that in earlier decades of the last century resulted in the elaboration of such instruments as the Vienna Conventions on Diplomatic Relations.

We are also pleased to note, in this context, that one of the founding fathers of present international space law ,the late Manfred LACHS ,born incidentally in what was then a part of Austria-Hungary, studied law not only at his native Jagellonic University of Cracow but also at Vienna University where the teachings of Hans Kelsen were still not forgotten, receiving training at the same time at Vienna's Diplomatic Academy from which he also graduated. He shared this experience with contemporaries like Alfred Verdross or Stephan Verosta later to become leading lights in the teachings of international law in Europe.

It is my hope, therefore, that in this atmosphere of wide-ranging international cooperation and against this historical background which has already seen so many advances in the building of a solid groundwork of international law your work will progress and prosper.

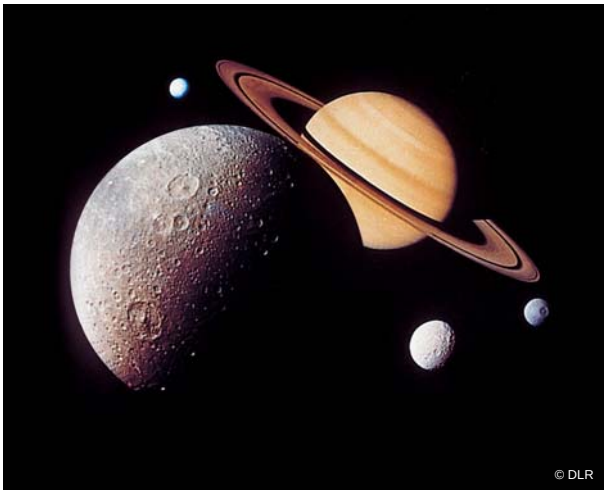
It is finally also my hope that the personal impressions you will gain during your stay in Vienna will be some what in line with the promise contained in the letter of invitation you received and in which Vienna was, quite properly, described as "an exhilarating contrast in sights and sounds" and in which visitors, I still quote from Gerardine Goh's letter "will find traditions and novelties to suit every whim, interest and fancy".

As far as sounds are concerned your work shop comes a little late for the famous New Years Concert of the Vienna Philharmonic, which was of course performed, as every year, exactly on January 1st but I have good news for you in so far as, according to the latest communications, the CD with the 2008 Concert is already on sale. A DVD with all the visual effects will also be available shortly….

Let me thus conclude by wishing you bon appetite for tonight, but an especially fruitful and creative day during your work tomorrow.

Session 3: Outer Space Treaty – Articles VII – IX

Friday, 11 January 2008



Moderators:

Prof. José Monserrat Filho
Head, International Cooperation Affairs, Brazilian Ministry of Science and Technology and Member of the Scientific Advisory Board, **CoCoSL**

Prof. Dr. Stephan Hobe, LL.M.
Editor and Research Director, **CoCoSL** and Director, Institute of Air and Space Law, University of Cologne, Germany

Rapporteur:

Dr. Michael Gerhard
Assistant to the Executive Board, German Aerospace Center (DLR), Germany

Session 3 of the Workshop was scheduled to run from 08:30 to 10:30. The programme was as follows:

08:30 **Article VII – International Liability**
Prof. Dr. Armel Kerrest, Professeur, Institut de droit des espaces et des télécommunications, Faculty of Law, University of Brest, France

09:00 **Article VIII – Registration**
Dr. Bernhard Schmidt-Tedd, Editor, **CoCoSL** and Head, Legal and Business Support: Space Agency, German Aerospace Center (DLR), Germany
Dr. Stephan Mick (in absentia), Assistant to the Chief Executive, Joint Aviation Agency, Germany

09:30 **Article IX – Due Regard / Environment**
Prof. Sergio Marchisio, Professor, Instituto di Studi Giuridici Internazionali (CNR), University of Rome, „La Sapienza“, Italy

10:00 **Article X – Requests for Observation of Flights**
Prof. Anatoly Kapustin, Dean, Faculty of Law, People's Friendship University of Moscow, Russia

Due to over-runs in discussion, the presentation by Prof. Kapustin on Article X was moved to Session 4.

Article VII – International Liability

Prof. Dr. Armel Kerrest
Professeur, Institut de droit des espaces et des télécommunications, Faculty of Law, University of Brest, France

Presentation Content

Slide 1: Problematic of the study.

- The liability regime for damage caused by a space object is mostly organised by the liability convention, only principles are set in the 1963 declaration and in the 1967 treaty.

- The most important distinction made in the Liability convention i.e. damage on earth and damage in orbit is not made in these texts.

Slide 2: Some hypothesis may be done and should be verify by a more precise study especially using the "travaux préparatoires".

- Was the liability referred to in article VII already a strict liability?

- Why did the USA and USSR accepted such a liability? Is it a counterpart to non space faring States for the freedom of use of outer space?

Slide 3: *Responsibility / liability /Responsabilité/ Responsabilitad*

A clarification must be done because of the difference between English and the other official languages. *(this issue may be looked after when responsibility –article VI – or when liability is concerned (article VII)*

- The distinction is not so clear in international law outside space law
  - If we have a look to the work of the International Law Commission of the UN on responsibility of States for Internationally wrongful acts, the word used in English was responsibility. In 1973 the US member of the Commission Mr Kearny ask the translators to use the word *"responsibility" "only in connection with internationally wrongful acts and that, with reference to the possible injurious consequences arising out the performance of certain lawful activities, the more suitable term "liability" should be used."*

  - In his report on "International liability for injurious consequences arising out of acts not prohibited by International Law", Mr Quentin Baxter Special Rapporteur referred to this precedent: "*Indeed, the distinction made by Mr Kearney was well established, at least by the mid-1960s, in the practice of the United Nations Committee on the Peaceful Uses of Outer Space; and no change is now proposed. Nevertheless, if two terms are used in English where one serves in French and in other working*

languages, it is necessary for the Commission to be satisfied that the variation in English is a matter of idiom (like the use of the two English terms, "President" and "Chairman", to correspond with the single French term, "President"), and that it imports no distinction in substance. This would seem to be the case. Within the Commission and elsewhere, the English terms "responsibility" and "liability" have been used interchangeably in relation to the regime of obligation in respect to the injurious consequences of acts not prohibited by international law. The term "responsibility", no less than the term "liability", implies "the necessity to make reparation", and in the English language literature of international law the term "liability" is commonly employed to refer generically to the consequences of any legal obligation."

- In a footnote, Mr Quentin Baxter very usefully refers to the text of Informal Composite Negotiating text of the convention of the law of the see in discussion at the time (for instance article 139 of the LOS conv "Responsibility to ensure compliance and liability for damage » is translated into "Obligation de veiller au respect de la Convention et responsabilité en cas de dommages" and "Obligación de garantizar el cumplimiento de las disposiciones de la Convención y responsabilidad por daños"

Slide 4: The extent of the liability under article VII

- Imputation: the launching State
  - Criteria of the launching State
  - Aims of the criteria
  - Nature of the criteria

Slide 5: The extent of the liability under article VII

- Nature of the liability
  - "Internationally liable"
  - A State-to-State liability
  - "Damage …by such object or its component parts".

Rapporteur's Notes

<u>Presentation</u>

- how much do the provisions of the LIAB can be taken into account (e.g. differentiation between damage on earth / damage in outer space)

- hypothesis Kerrest: Art. VII already contains strict liability

- historical background: why did US and USSR accepted such liability? Probably as a counterpart to the freedom to explore and use outer space

- distinction between liability and responsibility (reference to ILC report)

- interpretation of launching state criteria (message: in every launch we have a launching state)

- where to deal with the notion of “space object”?

Plenary Discussion

- ILC concept is fundamentally different from the concept of the OST; OST is mentioned as another concept, which is not be dealt with by ILC; ILC did not succeed on this topic; unanimously understanding: not to much reference to ILC concept, ILC concept might be misconceived

- Distinction between responsibility and liability: controversial discussion, no common understanding. Responsibility may include compensation, but under the conditions of Art. VII – but Art. VII has a totally different sphere of application: space objects vs. space activity. Maybe right understanding: States are responsible (jurisdiction, Art. VI), there might be liability/compensation under common concepts (violation of responsibility – fault), Art. VII liability is in addition (broader), also for those States, which were involved in the launching

- Strong interactivity between commentaries of Art. VI, VII, VIII necessary (responsible State always liable? No, e.g. transfer of ownership etc.)

- Law of the sea has to be considered

- the term “strict liability” does nowhere appear in the OST

- To some extent a linkage between Art. VII and LIAB is already necessary

- Languages: responsibility / liability (only English versions differentiates) will be dealt under Art. XVII

Article VIII – Registration

Dr. Bernhard Schmidt-Tedd
Editor, CoCoSL and Head, Legal and Business Support: Space Agency, German Aerospace Center (DLR), Germany

Dr. Stephan Mick *(in absentia)*
Assistant to the Chief Executive, Joint Aviation Agency, Germany

Presentation Content

Slide 1: Article VIII Outer Space Treaty

A State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body. Ownership of objects launched into outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a celestial body or by their return to the Earth. Such objects or component parts found beyond the limits of the State Party to the Treaty on whose registry they are carried shall be returned to that State Party, which shall, upon request, furnish identifying data prior to their return.

Slide 2: Outline

1. Introduction
2. Negotiations and Drafting History
3. Interpretation of Provision
   3.1. Registry / Object launched into outer space (1st sentence / 1st part)
   3.2. Jurisdiction and control (1st sentence / 2nd part)
   3.3. Ownership rule (2nd sentence)
   3.4. Return of objects (3rd sentence)
   3.5. Subsequent State practice (for States Parties to REG / for non-States Parties)
   3.6. Establishment of national registries (in compliance with Article VIII and REG)
4. Future Perspectives
   4.1. Relation to other registers
   4.2. Enhancement of registration practice / UNCOPUOS
   4.3. Harmonisation
   4.4. Space Debris
   4.5. Space Traffic Management

Slide 3: Content and Context

- Jurisdiction and control focused on a State Party on whose registry the object is carried (in contrast to the multiple responsibility / liability according to Articles VI and VII)
- Object-related jurisdiction and control in outer space, an area not subject to national appropriation by claim of sovereignty (special regulation in relation to Article II)

- Clarification with regard to ownership of objects / terrestrial civil law (clarification in view of Article II)
- Article VIII has to be seen in the context of Articles VI and VII; the goal of Articles VI – VIII is to guarantee responsibility of States and an object-related applicable law in a sovereignty-free area; no original private activities, without any responsible State; even activities of international organisations are backed by the responsibility of the participating State
- Principle to return foreign property follows the intention of Article V (Return and Rescue)

Slide 4: Drafting History

- 20 Dec 1961: GA Resolution 1721 B (XVI)
- 27 Jan 1967: Article VIII OST
- 1968 / 1969: French Draft Registration Convention UN Doc. A/AC.105/C.2/L.45 (1968)
    - 7th / 8th session UNCOPUOS
- 1972: Canadian Draft Registration Convention UN Doc. A/AC.105/C.2/L.82 (1972)
    - 11th session UNCOPUOS
- 1972: Common French / Canadian Draft UN Doc. A/AC.105/C.2/L.83 (1972)
- 1974: 13th session UNCOPUOS Div. Draft / Discussions
- 14 Jan 1975: Convention on Registration of Objects Launched into Outer Space (Registration Convention)
- 17 Dec 2007: UN GA Resolution 62 / 101: Resolution on the practice of registering space objects

Slide 5: Registration and Registry – Status Quo according to Article VIII OST (1967)

Article VIII OST takes the existence of a national registry for granted; the existence of a so-called (UN-) „Resolution Register“ is not mentioned (Convention Register still in existence)

Resolution 1721 B (XVI) of 20 December 1961

- Calls upon States launching objects into orbit…to furnish information promptly to UNCOPUOS… and
- Requests the Secretary-General to maintain a public registry of the information furnised accordingly (OOSA designated to maintain the public register)

Starting point: (National) registry of the State Party to the Treaty

Slide 6: **Keywords / Terms / Definitions**

Keywords for the regulation of Article VIII	**Definition / Context**
▪ Registry →← object launched into outer space	▪ Object → Articles IV, VII ▪ Outer space → Preamble, Article I
▪ Retain jurisdiction and control	▪ Interrelation with Articles VI and VII (Responsibility and Liability)
Related Terms	

▪ Ownership objects launched into outer space and of their component parts is not affected…	▪ Ownership: General legal term
▪ Such objects or component parts … shall be returned	▪ Article V return: State of registry
▪ Such objects … →← identifying data	▪ Interrelation with the content of the registry

Slide 7: Issues for Discussion and Exchange

- Article VIII (Content for Vol. I) as status of 1967 and the following developments, 1975 REG Convention, 2007 Principles (Content for Vol. II and IIII)
- Interrelation of Articles VI, VII and VIII OST
- Article II (non-appropriation), no claim of sovereignty (→ critical points of interpretation, e.g. keep-out zones) and Article VIII (object-related extension of jurisdiction and control)
- Article V (Rescue / Return principles), baseline for the ARRA Agreement and Article VIII (return of foreign objects)
- Definitions: „Object“ (see Articles IV and VII), „outer space“ (Preamble, Article I)

Rapporteur's Notes

<u>Presentation</u>

- only one State can have jurisdiction (State of registry)
- ownership clause is only clarification
- interrelation between Art. VI, VII and VIII necessary
- problem: international organisations
- Sentence 3 linkage to ARRA, how to reflect this in the commentary of Art. VIII?
- Keywords: registry, objects launched into outer space, jurisdiction and control
- Related terms: ownership, component parts, identifying data
- Interrelation to Art. II
- Where to define "space object" and "outer space"?
- To which extent can procedures implementing Art. VIII be seen as an interpretation of Art.VIII? To which extent mentioning of the Resolution Register?

<u>Plenary Discussion</u>

- Art. VIII does not deal with registration! It's only the reflex. Art. VIII deals with jurisdiction and control. The commentary has to reflect this

- Discussion necessary on the term jurisdiction “and” control (why not “or”)

- What is the difference between “jurisdiction and control” and “nationality”?

- Component parts – discussion on “debris”

- ILA report on registration has to be taken into consideration

- Interpretation of the terms of Art. VIII has to take into account that the State of registry has practical means to exercise jurisdiction. Not all launching States shall claim jurisdiction and control (via registration of the object)

Article IX – Due Regard / Environment

Prof. Sergio Marchisio
Professor, Instituto di Studi Giuridici Internazionali (CNR), University of Rome, „La Sapienza“, Italy

Presentation Content

Article IX - Due Regard/Environment

The longest Article of the OST

Introduction

The first part of Article IX deals with the principle that shall guide States Parties to the Treaty in the exploration and use of outer space, including the moon and other celestial bodies: the principle of co-operation and mutual assistance. At the same time, it provides for the obligation of States Parties to conduct “all their activities” in outer space, including the moon and other celestial bodies, with due regard to the corresponding interests of all other States Parties.

The principle of co-operation has been further developed by the General Assembly trough the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of all States, Taking into Particular Account the Needs of Developing Countries (1999).

The second part deals with harmful contamination and potentially harmful interference

States Parties to the Treaty shall pursue studies of outer space, including the moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose.

If a State Party to the Treaty has reason to believe that an activity or experiment planned by it or its nationals in outer space, including the moon and other celestial bodies, would cause potentially harmful interference with activities of other States Parties in the peaceful exploration and use of outer space, including the moon and other celestial bodies, it shall undertake appropriate international consultations before proceeding with any such activity or experiment.

A State Party to the Treaty which has reason to believe that an activity or experiment planned by another State Party in outer space, including the moon and other celestial bodies, would cause potentially harmful interference with activities in the peaceful exploration and use of outer space, including the moon and other celestial bodies, may request consultation concerning the activity or experiment.

Analysis of Preparatory Works

Biological, chemical and radiation contanination.
Since 1959, the first Report of the ad hoc Committee on the peaceful uses of outer space, contained a part III on Contamination. It was said, with reference to scientific studies, that
"Certain activities related to lunar and planetary impacts might result in biological, chemical, and radiation contamination".

Possible sources of contamination of the moon and planets were identified, generated by

- Release of chemical markers
- Radio activity resulting from nuclear explosions
- Generation of gases in connection with "soft" landings
- Generation of terrestrial micro-organisms

The re-entry of space vehicles which had effected landings on the moon and planets were also mentioned as source of contamination of the Earth on their return.
The conclusion was : "It will be desirable to continue such studies of this problem as are already under way, for example, in COSPAR, with a view to arriving at appropriate agreements to minimize the adverse effects of possible biological, radiological and chemical contamination".

Contamination of outer space/Contamination from outer space.

A major point of discussion was the protection of public health and safety: safeguards against contamination of outer space or from outer space.

a) Awareness of the apprehensions caused by activities in outer space which could bring to those regions, *by inadvertence*, living or other matter from the earth capable of interfering with orderly scientific research and freedom of exploration (*interference with scientific research and freedom of exploration*);

b) Encouragement of further studies to specify: the types of risks; the gravity of dangers; the technical possibility, as well as the cost, of preventive measures (*principle of prevention*);

c) Identification of safeguards against similar contamination of the outer space and the earth as a result of space activities as well as protection against other hazards to health and safety that could be created by the carrying out of programmes to explore outer space.

d) The aim of the studies to be undertaken was the possible formulation of *appropriate international standards*.

May 1962:
France: "One cannot stress too much the imperative and urgent necessity for measures designed to prevent any contamination; either by microbes or radio activity, of outer space and celestial bodies"

Australia: " It is of great interest to mankind to do all that we can to ensure that when we come to some body in the heavens for the first time, we do not introduce into it biological malformations that were not when we first arrived…..In reverse of that, we are going to have the problem of bodies returning from outer space to this earth, possible with new matter on them that was not present when they left".
The Committee strongly felt that there was a need for working out specific agreements as well as for formulating the rights and obligations of States in outer space. Some delegations, such as the French one, insisted that measures should be considered for prohibiting contamination of outer space and celestial bodies (*prohibition of contamination*).
Three methods of work in the development of outer space law in this field were identified in order to be applied by the Legal Subcommittee:

a) Direct application of the existing rules of international law to the extent to which they already were obligatory for, or recognized by, States. This concerned mainly such basic principles of law as the principle of coexistence, sovereignty, *neminem laedere*, equality of States and non-interference. The binding force of these principles in the law of outer space was not questioned;

b) The expansion of the existing law to the area of outer space through analogy. Some of the provisions applicable in other field of international law could be applied, per analogiam, to certain situations arising from activities in outer space.

c) Drafting of new rules of law in the form of international agreements or treaties which could be inspired by existing instruments of international law and could contain completely new concepts and norms of conduct.

These suggested methods should be applied during the process of the creation and development of outer space law in mutual interaction.
The main issues raised by governmental delegations were

- The principle of freedom of exploration and the prevention of contamination of and from outer space

- The principle of peaceful uses of outer space.

The debate about prevention of "potentially harmful interference" in outer space, as linked to peaceful use.

While the principles of co-operation and mutual assistance and due regard were seen as fundamentally inherent to the principles of the freedom of exploration and use, as well as of non-appropriation, the principle of avoiding potentially harmful interference was more linked to the critical issue of peaceful use, military uses and military experiments in outer space.

In this regard one main element to be considered with regard to the interpretation of the language of Article IX is the crisis that took place between the two superpowers in May 1963, namely the protestation of the URSS against a series of high-altitude nuclear tests in the Pacific Ocean. This was the US *West Ford Experiment*, qualified by the Soviet Union as "Dangerous US activity in outer space"; "Military Experiment in space involving the use of millions of copper needles"; "Criminal experiment".

Following to these events, COPUOS was brought to deal with the issue of “potentially harmful effects of space experiments”, the STSC discussed a set of recommendations and on 29 May 1963 an agreement was reached on the form of a draft recommendation on the “potentially harmful effects of space experiments”, which was approved by the main Committee. However, the scope of the recommendation was very limited in drawing the attention to the urgency and the importance of the problem of preventing potentially harmful interference with peaceful uses of outer space. As India stated out “We should indicate some way of tackling the problem..not merely draw the attention to its urgency and importance”. The need was mentioned for an objective, quantitative analysis of the probable results of such experiments by some authoritative international body, such as COSPAR.

The first step in the codification process of the principles of co-operation and mutual assistance, due regard and avoidance of potentially harmful interference.

In December 1963, the General Assembly adopted the *Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space*, contained in resolution 1962 (XVIII):

6. In the exploration and use of outer space, States shall be guided by the principle of co- operation and mutual assistance and shall conduct all their activities in outer space with due regard for the corresponding interests of other States. If a State has reason to believe that an outer space activity or experiment planned by it or its nationals would cause potentially harmful interference with activities of other States in the peaceful exploration and use of outer space, it shall undertake appropriate international consultations before proceeding with any such activity or experiment. A State which has reason to believe that an outer space activity or experiment planned by another State would cause potentially harmful interference with activities in the peaceful exploration and use of outer space may request consultation concerning the activity or experiment.

The adoption of the Declaration of legal principles was an historical act in the development of the law of outer space. It was now for the Legal Subcommittee to prepare the legal instruments which would later become the law of outer space. The problem of what was to be done to prevent the contamination or pollution of outer space was always discussed as a main concern.

In May 20, 1964, the Executive Council of COSPAR adopted a resolution on “No harmful interference from Westford Experiment” and 5 recommendations on the sterilization of space vehicles and space probes. In its turn, COPUOS adopted in 1964 a recommendation urging that

“all member States proposing to carry out experiments in space should give full consideration to the problem of possible interference with other peaceful uses of outer space, as well as of possible harmful changes in the natural environment caused by space activities and where member States consider it appropriate should seek a scientific analysis of the quantitative and qualitative aspects of these experiments from the Consultative Group on Potentially Harmful Effects of Space Experiments of COSPAR, and should give due consideration to the results of this analysis. This does not preclude other recourse to international consultation as provided for in General Assembly resolution 1962 (XVIII)”.

As for the negotiation of the OST, the 30 of March 1966 a first draft was proposed by URSS, followed by a US draft on 4 October 1966. Both of them, as well as the later versions of them, contained a clause concerning due regard/contamination identical to principle 6 of resolution 1962, with some additions:

“The Parties to the Treaty should conduct research on celestial bodies in such a manner as to avoid harmful contamination” (URSS first draft);
“States should pursue studies of and take steps to avoid harmful contamination of celestial bodies and adverse changes of the environment of the earth resulting from the return of extraterrestrial matter” (US first draft).

The Soviet provision concerning the avoidance of harmful contamination of celestial bodies was replaced by the requirement that States parties to the treaty should pursue studies and exploration of outer space, including the moon and celestial bodies, in such a manner as to avoid their harmful contamination and also adverse changes in the environment of the earth resulting from the introduction of extraterrestrial matter, and should adopt appropriate measures for this purpose.
Thus, on 15 December 1966 the draft text of the OST Was submitted to the UNGA First Committee: the provision which was to become Article IX was present with all its final elements, as summarized by the report:

“Observance of corresponding interests of other States in outer space, including the moon and celestial bodies, so as to avoid the harmful contamination and adverse changes in the environment of the earth; conduct of international consultations if any activity or experiment planned by a State or its nationals in outer space would cause potentially harmful interference with activities of other States”.

Interpretation and application

Space activities are *per se* ultra-hazardous activities, which may be harmful to both the space and the terrestrial environment.

Rules of law, both national and international, aimed at protecting the terrestrial environment had developed remarkably. Are they transposable to the space environment? Some lessons can be learnt looking at the evolution of international environmental law.

Since Article III of the OST establishes that activities related to the exploration and use of outer space are to be carried out in accordance with international law, applicable law includes not specific rules of space law but also international law at large, whether its nature be customary, conventional or other.

In Article IX we are concerned with the protection of the space environment *per se* and with the back contamination.

A contextual interpretation of Article IX shows that this norm is aimed at protecting not only the freedom of any state to carry out space activities without suffering harmful interference by others, but also at safeguarding the cosmic environment as an essential element of this freedom.

Contamination of the space environment being one of the major threats to the freedom of outer space, the protection of the space environment has to be considered as an integral part - not a limit - of space activities.

Article IX also establishes a duty of consultation upon states that "have reason to believe" that their planned activities, or experiments could produce potentially harmful interference with activities of other states.

The Principle of Sustainable Development

These primary norms of international space law are integrated by rules and principles on environmental protection of general scope, which have developed greatly in recent years.[9] These rules and principles are contained in multilateral treaties, in acts of soft law, such as the GA declarations of principles, but are often evidence of general practices accepted as law in the sense of Article 38 of the Statute of the International Court of Justice (ICJ).

Now, in the judgment of 25 November 1997 on the case of *Projected Dam of Gabcikovo-Nagymaros*, the Court stated that the principle of sustainable development had to be applied, as a legal principle, in the context of the obligations of the riparian states of the Danube river to not allow that the flow of water be altered, after the project's completion, by harmful activities and work.[10]

In para. 140 of this decision, the ICJ explicitly makes reference to existing norms of international law in the field of environmental protection, and among them specifically to a well consolidated principle of general international law, which provides a duty of control and preventive action.

The Court goes further towards recognizing "new norms and new standards" affirmed by a large number of instruments that tend to reconcile economic development with the protection of the environment.

4.2. The Duty to Prevent Environmental Damage

The duty of control and preventive action is implied in the traditional principle 2 of the 1992 Rio Declaration on environment and development, restating principle 21 of the 1972 Stockholm Declaration. Beside the sovereign right of states to exploit their resources pursuant to their environmental and developmental policies, there is a responsibility – that is to say an obligation – to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of their national jurisdictions. The same concept was expressed by the ICJ in its advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons*: "the existence of a general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states or of areas beyond national jurisdiction is now consequences of damage attributable to states under international law (rules on liability).

The effectiveness of environmental protection obviously requires the application of both primary and secondary rules.

The 1979 Moon Agreement, Article 7, para. 1, elaborates fully more in comparison with previous space treaties, by explicitly considering the risk of lunar contamination and

imposing upon states the duty to take measures to prevent the disruption of the existing balance of its environment.[8]

These primary norms of international space law are integrated by rules and principles on environmental protection of general scope, which have developed greatly in recent years.[9] These rules and principles are contained in multilateral treaties, in acts of soft law,

STATE PRACTICE

It has been often said that international space law is a law without practice: claims for compensation are rare and there are no disputes.

it seems that this practice shows a growing tendency not only toward consciousness of the problem but also toward tackling it, by behaving to protect, to the maximum possible extent, the space environment and by trying to avoid harmful contamination. In this regard, we may mention the application of the recommendation contained in the 2002 GA resolution 57/116 calling for the continuation of national research on space debris and the safety of nuclear-powered satellites; the conduct and procedures adopted by space-faring countries to effectively minimize the creation of space debris; the application of Article IV of the Registration Convention and state practice on the re-entry of space objects, like the MIR manned orbital station and its "safe and controlled" descent from orbit, or like the Beppo-sax Italian satellite's destruction and splash down into the Pacific Ocean on April 29, 2003 following a procedure of voluntary notification to potentially affected states; and finally, NASA's Galileo nuclear-powered spacecraft, deliberately destroyed by disintegrating it at high altitude within Jupiter's atmosphere "to eliminate the chance of an unwanted impact with Jupiter's moon Europe".[16]

As for the contribution of the scientific community, we may recall the COSPAR Planetary Protection Policy, aimed at providing acceptable guidelines which can be generally adopted by states to avoid contamination in their space exploration.[17]

Finally, mention has to be made of national legislation, as a part of relevant state practice. Regarding this point, the UK Outer Space Act of 1986, Section 5, includes among the conditions that might be imposed on private operators for them to obtain a license for their space activities, the requirement that their operations be conducted in such a way as to prevent contamination of outer space or adverse changes to the environment of the Earth.[18]

Rapporteur's Notes

Presentation Marchisio

- Art. IX is the only article which has the explicit wording "principle"
- Marchisio intends to insert an addition heading "application"
- Historical background: was already drafted in 61/62, never changed since that time

- Environmental issues were already dealt with by the committee
- Differentiation contamination “of” and “from” outer space
- Space law has not established technical notes (other than maritime law)
- Reference to COSPAR rules (on sterilisation etc.)
- Art. IX as basis for planetary protection? Relation to environmental law, ILC report 2001 and Stockholm declaration
- Consultation, transparency and confidence building measures (cf. also Art. IV), disarmament commission (prior consultation)
- Practice of States: consultation did never apply, but prevention of contamination did, e.g. MIR De-Orbiting, BepoSat

Plenary Discussion

- one should not differentiate between principles and duties – Art. IX is also a duty
- Relation between Art. IX (1) and Art. I (1) has to be examined
- It should be considered that Art. IX only mentions “studies” but not “use of outer space”
- Art. IX is never mentioned in the discussions on “debris”
- Art. IX is a reflection of general international law
- Technical notes were discussed by COSPAR
- to some extent consultation were done on the Chinese ASAT tests; EU presidency and Japan made a statement, that the test violated the OST – but Chinese case does not apply here, that should be mentioned by the commentary; also other participants are of the opinion that Art. IX has applied to many environmental subjects
- Should we conclude that there is a State practice to ignore Art. IX? No decision amongst participants on that
- Use of NPS should be dealt with

Session 4: Outer Space Treaty – Articles X – XVII

Friday, 11 January 2008

Moderators:
Prof. Vladlen S. Vereshchetin
Retired Judge of the International Court of Justice and Member of the Scientific Advisory Board, **CoCoSL**
Prof. Dr. Kai-Uwe Schrogl
Editor, **CoCoSL** and Director, European Space Policy Institute, Austria

Rapporteur:
Ms. Julie Abou Yehia
Research Intern, European Space Policy Institute, Austria

XX:00 **Article X – Requests for Observation of Flights**
Prof. Anatoly Kapustin, Dean, Faculty of Law, People's Friendship University of Moscow, Russia

11:00 **Article XI – Information to the UN Secretary General and the Public**
Mr. Jean-François Mayence (in absentia), Head of the Legal Unit, "International Relations"/ Legal Department Federal Office for Science Policy, Belgium
Dr. Thomas Reuter (in absentia), Attorney-at-Law, Germany
Presentation given by Dr. Gérardine Goh

11:30 **Article XII – Visits of Stations by Other States**
Prof. Dr. Lesley Jane Smith, Rector, Riga Graduate School of Law, University of Riga, Latvia / Weber-Steinhaus & Smith, Baumwollboerse, Bremen, Germany

12:00 **Article XIII – International Intergovernmental Organisations**
Dr. Ulrike M. Bohlmann (in absentia), Legal Officer, Legal Department, Office for Institutional Relations, European Space Agency, France
Dr. Gisela Süß, Legal Officer, Legal Department, European Space Agency, France

12:30 **Articles XIV – XVII – Miscellaneous Articles**
Dr. Gérardine Goh, Assistant Editor and Project Coordinator, **CoCoSL** and Senior Research Fellow, German Aerospace Center (DLR), and Institute of Air and Space Law, University of Cologne, Germany

13:00 **Conclusion**
Prof. Dr. Stephan Hobe, Dr. Bernhard Schmidt-Tedd, Prof. Dr. Kai-Uwe Schrogl
Editors, **CoCoSL**

Article X – Requests for Observation of Flights

Prof. Anatoly Kapustin
Dean, Faculty of Law, People's Friendship University of Moscow, Russia

Presentation Content

Slide 1: General Remarks

- *1. Placing art. X in the structure of Space Treaty*.
- The text of the Space Treaty is not structured enough (no chapters or titles or parts, only numbers of Articles).
- Link between provisions on international space cooperation containing in Preamble and arts I, III, IX, X and XI.
- Conclusion:
    - A) Provisions of art.X is legal obligations.
    - B) Provisions of art. X are concerning (or are a part of) the principle of space cooperation between States-participants.

Slide 2: General Remarks

- 2.Legal nature of the provisions of art. X.
- Evolution of the request for observation of flight:
- A) before Space Treaty – UN GA resolutions 1348 (XIII), 1472 (XIY), 1721 (XYI), 1884 (XYIII), 1962 (XYIII) are not provided such a right.
- B) Art. X of the Space Treaty is the first and last time when the right of the request is mentioned.
- Doctrinal discussion:
- 1 position – art. X is a part of the general principle of international Space Law – principle of supporting of international space cooperation (jointly with arts XI and XII).
- 2 position – Principle of space cooperation contained in arts. I, III and IX. Art. X is followed from the principle of space cooperation and make it more detailled.
- 3 position – no any mention of art. X.
- Conclusion: request for observation of flight is a norm of secondary character of the Treaty.

Slide 3: Matter of Request

- 1.The right to request for observation of flight.
- *Subjects* – all States-participants of the Space Treaty that launches or procures to of an object into outer space. Has the same right States-participants from whose territory or facility an object is launched?
- *Objects* – the possibility of observation of space flight of space objects.
- *Legal form of the decision of the matter* – agreement between concerned States-participants.

Slide 4: Matter of Request

- 2. The duty to consider of request for observation of flight:
- *A) Clear provisions of the art. X*:
- To consider of request for observation of flight from others States-participants of the Treaty that launched or procures the launching of an object into outer space.
- to consider of request for observation of flight on a basis of equality.
- *B) Implied provisions of the art. X*:
- What is the meaning of "on a basis of equality"? The prohibition of discriminatory between States-participants or something else? If yes, what is something else?
- What does meant "to consider of request"? To start immediately (or after reasonable time) to negotiate the agreement? Is the right to refuse the possibility for observation of flight?
- What kind of agreement should be concluded: intergovernmental, between State agencies, or between private persons?

Rapporteur's Notes

1. Keywords to be defined:
   1.1. "International cooperation": appearing also in the Preamble and Arts. I, III, IX, X and XI. It may be best to define this word in Art. X since this is the first place where it is worded as an obligation to observe the principle of cooperation between States.

2. Article X relates to the obligation of an international cooperation that exists in many other texts.

3. Contentious Issues:
   3.1. Need to define and understand the phrase "flight of space object"
      3.1.1. Kapustin: There is a preoccupation of States that do not have installations with which to observe the flights of space objects – and therefore the application is to the "flight" of space objects as opposed to the "launch".
      3.1.2. Vereshchetin: US / USSR wanted to have opportunities on an equal basis of observation of ***their own space objects*** so as to ensure safety and have further information on the status of these space objects. Art. X was meant to address this concern.

   3.2. Need to understand how Art. X promotes international cooperation for the observation of space objects and in general for space activities.

4. Art. X was to address the then-held opinion of the necessity to establish stations on the global basis to have optical contact with space objects.
   4.1. Article X should thus be explained in the light of its historical context and the initial years of space exploration
   4.2. Schrogl: It would be interesting to consider bilateral agreements (e.g. outside the framework of the UN) to see if and how these agreements refer to Art. X
   4.3. Schmidt-Tedd: Art. X, viewed in an abstract light, is a confidence-building measure

4.4. Freeland: E.g. given of the observation of the Apollo 11 mission from the territory of Australia – bilateral agreement between US and Australia in the vein of a military agreement
4.5. Vereshchetin: Strong necessity for the author of this article to check the actual practice

5. "Flight of Space Object": Debate
   5.1. von der Dunk: Why is the term "launch" not included in Art. X together with the "flight" of the space object?
   5.2. Kapustin: This is made from a practical point of view – if a States launches an object and does not have an installation on its own territory from which to observe the flight, this can be done from the territory of another State. Art. X is meant to address this.
   5.3. Vereshchetin: Question as to practice – it is necessary to look at the actual State practice with regard to the obligations under Art. X. Practically speaking – it is important to ask the reasons as to why the launching State finds it necessary to observe the object. The idea was that other States should assist such observations through the permission to do so on their territory. It was regarded as the right of the space-faring nation to ask for such observation on third-State territories.

6. "Facilities"
   6.1. Marchisio: There is no mention of "facilities" – should this apply only to the two categories of States – the "launching State" and the "State that procures the launch"?

7. Liability
   7.1. Jakhu: It may be necessary to consider Art. X in the light of Art. 7 of LIAB
   7.2. Vereshchetin: It was the main concern of the two space rivals of the time, the USA and the USSR, to have an opportunity on an equal basis to observe the flight of their space objects. This was again with regard to the provision of safety standards and so as to have sufficient information on such space objects.

Article XI – Information to the UN Secretary General and the Public

Mr. Jean-François Mayence *(in absentia)*
Head of the Legal Unit, "International Relations"/ Legal Department Federal Office for Science Policy, Belgium

Dr. Thomas Reuter *(in absentia)*
Attorney-at-Law, Germany

Presentation Content

Slide 1: Assessing the Topics

- What's Article XI OST dealing with?
  - international cooperation for peaceful purposes
  - information due to the public through the UNSG:
  - type, nature, content of information
  - information from whom? to whom?
  - role of the UNSG

Slide 2: II. Organizing the Topics

- Introduction: history of international cooperation in modern international law
- A short drafting history of Article XI OST
  - who played a role in the drafting? which role?
  - the different draft versions and their substance
- Comparative review of Article XI OST wrt/
  - the 1959 Antarctic Treaty
  - the 1982 Convention on the Law of the Sea
  - the 1979 Moon Agreement

Slide 3: II. Organizing the Topics

- The legal effect of Article XI OST
  - who owes the information?
  - who has access to the information?
  - what information is due?
  - what are the modalities of dissemination?
- what is the sanction of Article XI OST? (legal bindingness)

Slide 4: II. Organizing the Topics

- Implementation of Article XI OST
  - use by States wrt/ OOSA (legal basis for formal communication)
  - use by States for registration purpose
  - other use
  - implementation through national legislations

- difficulties observed in the implementation (non disclosure of information for strategic reasons, classified data/activities, etc.)

Slide 5: II. Organizing the Topics

- Conclusion: relations with current concerns regarding space activities
- possible recommendations
- role of Article XI OST in Space Situation Awareness (space debris CoC, CODUN CoC, etc.)

Slide 6: III. Identifying the Sources and References

- Literature on space law
- Official documents (UN, ESA, national)
- Reports by OOSA, by States

Written Text to Date

COMMENTS ON ARTICLE XI OF THE OUTER SPACE TREATY

Working Canvas

I. Introduction – International cooperation : From a policy towards a commitment

II. A short drafting history of Article XI

Travaux préparatoires

III. Comparative review of the "*duty of information*" in international treaties

1959 Antarctic Treaty
1982 UNCLoS
1979 Moon Agreement

IV. Obligations under Article XI

Addressee of the obligation to disclose information
Recipients of the disclosed information
Information to be disclosed
Modalities of disclosure
Legal bindingness
Links to other Outer Space Law provisions

V. Review of the implementation of Article XI of the Outer Space Treaty and possible developments in the future

The role of Article XI in the registration problematic
Other uses of Article XI
Implementation through national space legislations
Difficulties and obstacles in the implementation of Article XI

V. Further relations with current concerns in outer space activities and possible recommendations

Space Situation Awareness (Space Debris, Space Traffic, CoC)

I. Introduction - International cooperation: From a policy towards a commitment

On December 19, 1966, at the occasion of the XXIst session of the United Nations General Assembly, States adopted what would become one of the most avant-gardist and audacious treaties of modern international law.

International cooperation was clearly identified as the main objective of this set of principles already stated in an UN General Assembly's Resolution in 1963. This is confirmed by the statements made by the governmental representatives at that time.

The US Representative highlighted that "*the treaty furthers the aims of the Charter by greatly reducing the danger of international conflict and by promoting the prospects of international cooperation for the common interest in the newest realm of human activity. This treaty is an important step towards peace*"[1].

Although the USSR Representative's statement sounded a little bit more "politically oriented", it also emphasized the importance of international cooperation for peaceful purpose: "*In evaluating the [T]reaty, we would like to stress the point that we regard the preparation of the [T]reaty and its approval by the General Assembly as a victory for the peace loving forces in the struggle against those who advocate using outer space for purposes of provocation and aggression*"[2].

The concept of *international cooperation* has been enshrined in the UN Charter as one of the main purposes of the UN[3]. But before that, it appeared in one of the very first sentences of the Covenant of the League of Nations, established in 1919 by the Treaty of Versailles. Quite often, the need for international cooperation has been linked to the will to settle or to prevent international conflicts and wars. However, the need for international cooperation was already implicitly present in international law at the end of the XIXth Century. The industrial revolution in the Western countries had already started to divide the world in two parts: the rich ones and the less rich ones. The systematic exploitation of the latter's resources by the formers would create a situation of misbalance, sewing the seeds of ideological, political, social and economical divides which national and international policies are still nowadays trying to bridge.

The clearsightedness of the negotiators of the UN treaties prevented to turn outer space in another economical battlefield. While the exploration and the use of space has always remained a strong incentive for technological and scientific capacities to surpass themselves, this area has been considered from the very beginning as deserving a special status, preserving it from the usual international struggle.

Still, despite the fact that the concept had been recognised by international law for a long time, it was only defined in 1970. UNGA Resolution proclaiming the Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States in accordance with the Charter of the United Nations[4] defined *international cooperation* as the voluntary coordinated action of two or more States, which takes place under a legal regime and serves specific objectives[5].

This international cooperation is given, by the same Resolution, the status of a duty imposed to all States towards one another, irrespective of the differences in their political, economic and social systems. The objectives of the cooperation should not be restricted to the interest of the cooperating States but should also take into account the interest of developing countries. This phrasing recalls the first article of the Outer Space Treaty and prefigures the Declaration on International

[1] UNGA XXIst session (A/PV.1499)
[2] UNGA XXIst session (A/PV.1499)
[3] UN Charter, Chapter I, Article 1, paragraph 3
[4] UNGA Res. 2625
[5] Chukeat NOICHIM, *International Cooperation for Sustainable Space Development*, in Journal of Space Law, University of Mississippi School of Law, Volume 31, nr 2, 2005, p. 316

Cooperation in the Exploration and the Use of Outer Space for the Benefit and in the Interest of all States, Taking into Particular Account the Needs of Developing Countries, adopted 26 years later by the UNGA[6].

Article XI of the Outer Space Treaty confirms international cooperation for peaceful purposes as a basic principle of outer space law. This provision constitutes a blend of several concepts but doesn't fail in bringing novelty with connecting *cooperation* with *information*. The dual nature of such information is obvious since it encompasses several subjects, namely: the *nature* of space activities, the *conduct* of space activities, the *locations* of space activities and the *results* of such activities. The information is at the same time a *means* of cooperation and an *object* of cooperation. A *means*, because information on the activities and their modalities (nature, conduct, locations) is supposed to foster participation of other countries therein or contribution thereto; an *object*, because the results of the activities are at stake and constitutes a valuable resources for the cooperating countries.

Exchange of information remains a key-element of international cooperation. This was obviously highlighted during the discussion on the concept of Launching State, which took place within UNCOPUOS and ended up with a UNGA Resolution in 2005[7]. A sound management of transnational space activities with regard to outer space law principles, notably the space responsibility (Art. VI OST), the space liability (Art. VII OST) and the registration of space objects (Art. VIII OST), requires not only a harmonization of the national legislations or regulations, but also and first of all, a fluid exchange of information of the same spirit as Article XI of the Outer Space Treaty.

II. A short drafting history of Article XI

Just as an embryo in its mother's womb, Article XI was slowly and progressively matured through several working papers discussed within UNCOPUOS and its Legal Sub-Committee. It is not wrong to say that, among all the States involved in the drafting of the Outer Space Treaty and which had to consent on its final text, three "good fairies" leaned over the cradle. Those were the United States of America, the Union of Soviet Socialist Republics and The United Arab Republic.

The drafting history of Article XI was not simple. It was driven by three main ideas: (1) the necessity to inform the world community about activities performed in outer space and their outcomes, (2) that such information should be provided by States on a voluntary basis, (3) that the UN should play a central role in making such information available to the world community.

It must be noticed that, contrary to other Outer Space Treaty's provisions, the principle of the exchange of information with regard to space activities and the central role of the UN Secretary General in the dissemination of that information was not provided as such by the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, as adopted by the UN General Assembly on December 13, 1963[8]. Actually, the exchange of information was restricted by the Declaration as a duty to consult other States involved in case activities could have harmful consequences.

To that extent, Article XI of the Outer Space Treaty appears as a remarkable development in setting up an information system based on the pro-activity of the States parties and the focal role of the UN Secretary General.

The first United Arab Republic's draft of September 14, 1962 was based on a *best effort commitment* from States to act *on a voluntary basis*[9]. This total absence of legally binding obligation contrasted with the draft submitted by US on June 16, 1966 in which Article 4 provided the following:

[6] UNGA Res. 51/122
[7] UNGA Res. 59/115 (see notably para 3 and 4)
[8] UNGA Res. 1962 (XVIII)
[9] See *Travaux préparatoires* and related documents of the Outer Space Treaty, as published in Nandasiri JASENTULIYANA, Roy S.K. LEE, *Manual on Space Law*, Dobbs Ferry, New York, 1979

"*A State conducting activities on a celestial body shall (a) promptly provide the Secretary-General of the United Nations with a descriptive report of the nature, conduct, and locations of such activities and (b) make the findings of such activities freely available to the public and the international scientific community.*" (emphasis added)

This wording appears remarkably more constraining than the one proposed by the Arabian Delegation. The communication of the information is expressed as a duty, to be fulfilled in a prompt manner, and which covers not only the nature, the conduct and the location of the activities, but their findings as well. Moreover, the principle of the free availability of the information was explicitly stated.

Counter-proposals by USSR and UAR were formulated on July 21, 1966. They returned to the spirit of a voluntary based commitment. The Arabian proposal, however, was the only one to detail the role of the UN Secretary-General in disseminating the information as well as on the modalities of the communication of it. But, most of all, the UAR's proposal featured an extension of the provision (which was initially limited to activities on celestial bodies) to *all* space activities[10].

The next US proposed draft – dated September 13, 1966 - for Article 4 seemed to ignore that extension and made a considerable step backwards with regard to their first proposal. The States parties were to "*take note of the desirability of the fullest exchange of information (...)*" and "*to the extent feasible and practicable*", promptly submit reports to other Parties and to the UN Secretary-General. In response to this new proposal, UAR requested the inclusion of several elements on the central role and the involvement of the UN Secretary-General but didn't question the restriction of the scope of Article 4 to the activities performed on celestial bodies. This latest Arabian draft received the support of the Soviet Delegation[11].

The United Kingdom voiced its regret that, despite the general consensus on the necessity to have a free and full dissemination of the information to the world community, arguments were raised to avoid that such information be provided on an obligatory basis, which was "*the only way to make the principle fully effective*"[12].

At that point, the compromise on the draft Article 4 could not be reached because of the unwillingness of the Soviet Delegation to go further in those discussions[13]. A "diplomatic" exchange followed between the US and the USSR Delegations with considerations not necessarily related to space law. Meanwhile, an agreement had been reached within the Legal Sub-Committee on nine articles which corresponded to principles of the 1963 UN Assembly General Resolution.

The following discussions with the Sub-Committees working groups ended up in the final version of what was to become Article XI of the Outer Space Treaty. Curiously enough, that version derives from the Arabian proposal of July 1966, while adding an important element on the purposes of the provision. The aim of promoting international cooperation in the peaceful exploration and use of outer space brought a significant meaning and, at the same time, a determined frame to Article 4, integrating it in the global logic of the Outer Space Treaties and making of it one of the basic principles of space law.

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[10] "*States conducting activities <u>in outer space, and on celestial bodies</u>, will, on a voluntary basis, inform the Secretary-General of the United Nations and also the public and the international scientific community of the nature, conduct and locations of <u>such activities</u> through the United Nations facilities.*
All information shall be promptly submitted, preferably in advance or at the carrying out of these activities or immediately after.
The United Nations should be prepared to disseminate this information immediately and effectively after receiving the said information which has to be ample and in detail for the benefit of the general public and the international scientific community." (emphasis added)

[11] See UN Document A/AC.105/C.2/SR.70

[12] See UN Document A/AC.105/C.2/SR.71 and Add.1, statement by Mr Darwin, UK Delegation

[13] See UN Document A/AC.105/C.2/SR.73

III. Comparative review of the "*duty of information*" in international treaties

The International Geophysical Year definitely brought a new dimension to international law. It commanded international lawmakers an alternate way of conceiving international cooperation. In a world subject to more and more national sovereignty claims, the protection and the preservation of specific areas, as well as their use for the benefit of mankind, was at stake. In such a context, it was obvious that cooperation, and even more the control of each States' compliance with their mutual obligations, required transparency in their respective activities. To that purpose, Article XI must be considered as a key provision. Therefore, one must expect to find similar provisions in treaties which deal with similar scope and objectives as the Outer Space Treaty's.

The Antarctic Treaty

With the adoption of the Antarctic Treaty, done in Washington on December 1, 1959, States elaborated what could be seen as a model of cooperative law. In several provisions, the Washington Treaty puts the exchange of information as a prerequisite for a good implementation of its principles.

Article III, (a), establishes a direct link between the exchange of information on planned scientific programmes on the one hand and *the maximum economy and efficiency of operations*.

Article VII, §5, obliges States parties to provide prior information on all expeditions organized by nationals, all stations occupied by nationals, as well as on the use of any military personnel or equipment. In the framework of the Antarctic Treaty, such information has a very particular purpose which is to allow the mutual control system set up by the Treaty. This concept of mutual control induces the limits of the cooperation. States will obviously refrain from imposing to other States the observance of a principle which they, themselves, are not ready to abide by. The same thing goes for the exchange of information. It is expectable that States will not claim information from other States which they wouldn't be willing to provide themselves.

The Law of the Sea

A more achieved system of sharing of information can be found in the United Nations Convention on the Law of the Seas (done in Montego Bay on December 10, 1982).

In its general section dedicated to the protection and the preservation of the marine environment (Part XII), the Convention organizes an active scientific cooperation between the States parties[14]. This cooperation goes even further by imposing a duty of technical assistance to developing States for the purpose of monitoring the marine environment.

Part XIII of the Montego Bay Convention on Marine Scientific Research, sets up a publication and dissemination regime applicable to information on programmes, as well as on their results. This regime includes exchange of knowledge, education and training to the benefits of developing countries[15].

Finally, specific provisions apply to Part XI on The Area. The International Seabed Authority is entrusted with a central role for the passive collection and dissemination of the information[16]. Transfers of technology are considered to contribute to the effective exploitation of the Area's natural resources for the benefits of the whole international community[17].

[14] See Art. 200 of the Convention.
[15] See Arts. 244, 248, 250 of the Convention.
[16] See Art. 143 of the Convention.
[17] See Art. 144 of the Convention.

All in all, the Montego Bay Convention makes of the exchange of information a key element of international cooperation, notably in aiming at a better balanced involvement, at the economical, scientific and technological levels, of all States parties.

The Moon Agreement

Another treaty which features interesting provisions on the exchange of information as a vector for international cooperation is the 1979 UN Moon Agreement. Despite its poor consideration by the international community, this agreement opens new doors in the management of common resources areas. Apart from making the resources of the celestial bodies subject to a Common Heritage of Mankind regime, the Moon Agreement provides for specific and quite practical modalities in the scientific exploration of the celestial bodies of our solar system. For instance, Article 5 regulates the furniture of scientific data at the various stages of a planetary mission with regard to its length.

It is also obvious that the Moon Agreement shares with the Antarctic Treaty the institution of a mutual control mechanism[18], which implies transparency and communication of relevant information.

All in all, the importance of mutual information between States parties to a legal instrument such as the Outer Space Treaty has been clearly demonstrated. Current discussions on the necessity of codes of conduct for space activities illustrate such a need[19].

IV. Obligations under Article XI

The general principles of the outer space law, as expressly stipulated in Article I OST, provides for the exploration and use of Outer Space to be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development. One of the most important elements of this general concept is a fair and equitable access to information gathered and knowledge acquired through the carrying out of space activities for all nations. It is Art. XI that transcribes this transfer of information to the Outer Space Treaty.

At first sight, Art. XI stipulates a general, all-embracing obligation of the space-faring nations to disclose information regarding their activities in Outer Space. However, the individual elements of the provision deserve a more detailed reflection.

Addressee of the obligation to disclose information

As a general concept, the Outer Space Treaty as a basic principle only addresses space activities carried out by states. The obligation to disclose information pursuant to Art. XI is therefore in the first place related to the national space activities carried out by the space-faring nations.

However, according to Art. VI OST, States Parties to the Treaty also bear international responsibility for activities in outer space carried on by non-governmental entities, and have to assure that these activities are carried out in conformity with the provisions of the Outer Space Treaty. The obligations laid down in Art. XI OST are therefore applicable to non-governmental space activities as well. However, private activities in Outer Space are only indirectly affected by Art. XI OST. As only the member states are party to the Outer Space Treaty, it is in their responsibility to assure that space activities carried out by their nationals are in compliance with the provisions of the Outer Space Treaty.[20]

[18] See Art. 15 of the Agreement.
[19] This is the case within the CODUN Working Group, dealing with the need for a European Code of conduct on space activities and problematic such as space security, space traffic management or space debris. Exchange of relevant information, dissemination, notification are already considered as key-chapters of such a code.
[20] At this point we could include relevant national space regulations.

Recipients of the disclosed information

Art. XI OST provides for an obligation to information (a) the Secretary General of the United Nations, (b) the public and (c) the international scientific community.

Firstly, information regarding space activities is, pursuant to Art. XI OST, to be disseminated to the Secretary General of the United Nation. Within the organization of the UN, the United Nations Office for Outer Space Affairs is responsible for the receipt of information disclosed pursuant to Art. XI OST. The second sentence of Art. XI OST commits the UN Secretary General resp. OOSA to disseminate information it has received pursuant to Art. XI OST immediately and effectively.[21]

The obligation to inform the public is of a more general nature. While access to information disseminated through the UN-network is to a large extent limited to national governments and officials, direct information of the general public, for instance via media services, enables a far more extensive spread of the respective information.

The international scientific community is listed in Art. XI OST as an exemplary part of the general public. Since space flight is a highly technical and innovative venture associated with considerable expenses, the area of scientific advancement is one of the fields in which member states can profit most of international cooperation.

Information to be disclosed

According to Art. XI OST, information to be disclosed concerns the nature, conduct, locations and results of activities in Outer Space. The wording of this provision being very broad, it can include a wide variety of different information.

Information concerning the nature of a space mission embraces in particular all kind of information regarding the mission objectives.

Information regarding the conduct of activities in Outer Space and their locations includes technical information regarding the construction of a certain space object and its respective launching facilities, launching times, flight path or orbit position.

Furthermore, also the results of space activities carried out by the member states are covered by Art. XI OST. Included are, for example, the results of experiments carried out in space, knowledge gained concerning the setup of the solar system or remote sensing data obtained by satellites.

Modalities of disclosure

As comprehensive as the general obligation to disclose information is formulated in Art. XI OST, as extensive is the reservation provided for. Information is only to be disclosed “to the greatest extent feasible and practicable”. The vague wording of this provision opens the floodgates to justifications not to disseminate information related to space activities.

Member states may deem the disclosure of information as unfeasible or not practicable with regard to strategic or commercial considerations. The wording of Art. XI OST provides for no orientation as to whether the disclosure of information is “feasible” or “practicable”.

Space-faring nations may have strong strategic interests not to disclose information gained as result of space activities. This is obvious for instance concerning remote sensing data used for military purposes or for technology employed in missile defense systems. Other strategic interests may concern the protection of intellectual property rights.

[21] At this point we could include the practice of OOSA concerning information disseminated to it.

There is also a strong interest to not disseminate information under Art. XI OST as far as there is a commercial market for the respective information. This may be the case for specified remote sensing data.

As many interests there might be to keep certain information undisclosed, Art. XI OST asks for a disclosure to the *greatest extent* feasible and practicable. The space-faring nations are therefore asked to balance their interest to keep certain information confidential and to consider the interest of all other nations to participate in the benefits of space exploration.

Legal bindingness

The foregoing interpretation of the individual elements of Art. XI OST leads to the question regarding the legal classification of Art. XI OST. With its blanket clauses and broad wording, it could be regarded as a non-binding declaration of intent, a programmatic statement, a declamation or just political lyric. In the general context of the Outer Space Treaty as the *Magna Carta* of international space law, however, Art. XI OST has to be regarded as a legally binding provision.

Nevertheless, regarding its vague formulations, Article XI OST has to be regarded as a so called *soft law* provision. The wording does not allow for a clear cut obligation to be construed, as there is no measure as to when the dissemination of information is not "feasible or practicable". Furthermore, the Outer Space Treaty does not provide for a sanction mechanism. That being said, the relevance of Article XI OST must not be underestimated.[22]

Links to other Outer Space Law provisions

Registration Convention: The Registration Convention has formalized and substantiated the obligation to inform the international community concerning all information related to the launch of space objects. It therefore overrides, being *lex specialis*, the provisions of Article XI OST regarding the information to be disclosed under the Registration Convention.

(?) Links with:

- Art. VIII OST
- UNGA Res. 51/122 (§5)
- UNGA Res. 59/115 (§3)

V. Review of the implementation of Article XI of the Outer Space Treaty and possible developments in the future

It is not an easy task to assess the actual implementation of Article XI since its entry into force on October 10, 1967.

The UN Office for Outer Space Affairs gathers various data about national and international space activities. Some are communicated to the Office on the clear basis of international agreements, such as for the registration of space objects, while others are collected by the Office on an informal basis. There is therefore no clear identification of information communicated to the UN Secretary General on the basis of Article XI of the Outer Space Treaty. Nevertheless, should such information exist, it would constitute a substantial material to be published by the Office for Outer Space Affairs. Unlike the technical specifications required under the UNGA Resolution 1721 (XVI) B and the provisions of the 1975 UN Registration Convention, for the registration of space objects, Article XI of the Outer Space Treaty deals with description of the *activities* and their results. To that extent, reports on national activities which are compiled by the Office on a periodical basis, correspond much better to the content of Article XI.

[22] Here I will have to elaborate whether there is the possibility to construe an entitlement for non-space faring nations to obtain certain information (Julia Neumann).

Trying to determine whether Article XI of the Outer Space Treaty has played an effective role in the availability of such information by Member States along the history of their national space activities, or whether such transparency is due to a quite voluntary behaviour from them, would be pure speculation. One can only observe, from year to year, the amount and the quality of the information delivered to the UN Office for Outer Space Affairs and the interest of the world (scientific) community for its reports.

The role of Article XI in the registration problematic

An alternative use of Article XI by States parties, which couldn't be expected at the time it was drafted, has been enlightened in the frame of the registration problematic.

In assessing the deficit of application of the 1975 UN Registration Convention, as well as its difficulties of implementation in certain situations of transfer of activities which couldn't be foreseen by the 1967 international lawmaker, some space law experts suggested that one element of solution could be found in a broad interpretation of Article XI.

Such interpretation is now championed by some States which have to face a new phenomenon in space activities. The transfer in orbit of a space object, following a change of operator or in the legal or economical status of the original operator, calls for a reassessment of the notion of "registering State". Since Article VIII of the Outer Space Treaty, as well as Article II of the 1975 UN Registration Convention, strictly reserve the registration of a space object to its launching State, the State under which jurisdiction the in-orbit operation of the space object is transferred has no legal means to take over such registration. The new coordinates and specifications of the space object must therefore be communicated to the UN Secretary General on an alternate legal basis, which Article XI of the Outer Space Treaty can provide. Such argumentation is supported by the Netherlands[23] and the United Kingdom[24].

An interesting practice has developed since the UN Office for Outer Space Affairs started compiling unofficial information, mentioned as such, as part of an online index. Such information concerning space objects which have not (yet) been registered according to the provisions of the 1975 UN Registration Convention or of the UNGA Resolution 1721 (XVI) B, are subject, from time to time, to formal rectifications by States. Those States, which seek to deny their capacity of registering authorities and therefore refrain from using the former provisions, are inclined to use Article XI in order to confer their statement a formal nature.

Other uses of Article XI

Other uses of Article XI are foreseen under several provisions of the UNGA Resolutions applicable to outer space, namely Principle IX of the 1986 Resolution on the Principles relating to Remote Sensing of the Earth from Outer Space[25], or Principle 4 of the 1992 Resolution on the Use of

[23] Following the case of the New Sky Satellites, registered by the then international organization INTELSAT. See notably doc. UN A/AC.105/806 (*Note Verbale from Netherlands dated July 29, 2003*), doc. UN A/AC.105/824 and A/AC.105/826.

[24] That case was similar to the New Sky Satellites': the UK Government had to deal with the succession of INMARSAT as an intergovernmental organisation by INMARSAT ltd. In this case, UK issued a statement through a Note Verbale (09/09/2002 – doc. UN ST/SG/SER.E/417/rev.1) mentioning Article XI of the Outer Space Treaty as one of the legal provisions founding that statement according which UK was not the launching State of the concerned space objects. A similar Note Verbale was issued by The Netherlands concerning an NSS/INTERLSAT satellite (see here above mentioned UN A/AC.105/824) and mentioning Article XI of the Outer Space Treaty as one of the legal basis of that communication.

[25] UNGA Resolution 41/65. In this very case, information is due not only to the UN Secretary General, but also directly to any other State, at its request. In this latter case, it seems more appropriate to consider such information to be provided on the basis of Principle IX of the Resolution rather than on the basis of Article XI of the Outer Space Treaty.

Nuclear Power Sources in Outer Space[26], dealing with the Safety Assessment. This provision defines a specific timeframe for the communication of information under Article XI. This communication is due to happen *prior* to the launch, in order to provide the Secretary General as well as the other States with the necessary information in order to implement an *a priori* control. Those references to Article XI seem to demonstrate its utility in establishing a general mechanism of exchange of information, centralized in the hands of the UN Secretary General. It confers the information a formal character and thereby, plays an important role in what is nowadays referred to as the "*Space Situation Awareness*". It is not superfluous to recall the value of such formal information in assessing the implementation by States of their obligations, notably their international responsibilities.

Article XI of the Outer Space Treaty has thus become a canal for a variety of formal notifications, including rectifications of informal data published by the Office for Outer Space Affairs. It is unclear whether such practice by the Office has been followed on purpose, but ironically enough, it contributes nowadays to collecting information from States to such extent that the Office's online index turns into a more and more formal catalogue of information. Governments are now keen to have such index reflecting their official position[27].

Implementation through national space legislations

Most of the existing national space legislations or regulations do not expressly address the question of the communication of information to the United Nations, and of the related procedures and mechanisms.

Since such procedures and mechanisms are already detailed through the 1975 UN Registration Convention, information related to space object and their registration is dealt with at some point within national administrations. But other information to be communicated to the UN Secretary General is barely identified by national laws.

The Belgian space legislation provides an exception to this general silence. Article 14, §2, 6°, of the Law on the activities of launching, flight operations or guidance of space objects, of September 17, 2005, foresees a communication to the UN Secretary General of elements of information and data which go beyond those required under the Registration Convention:

> "*As soon as the relevant entry has been made in the Register, the Minister shall communicate to the Secretary General of the United Nations the information referred to 2° [space object registration data] and any updates, as well as information related to the loss, de-orbiting or end of the space object's flight operations.*" (emphasis added)

[26] UNGA Resolution 47/68. It is provided that the result of the safety assessment imposed to the "Launching State" must be made publicly available prior to the launch and that "*the Secretary General of the United Nations shall be informed on how States may obtain such results of the safety assessment as soon as possible prior to each launch*".

[27] In its Note verbale of February 18, 2004, the Government of the Netherlands requested "*the [UN] Secretary General to incorporate this information in the Online Index in square brackets (...) and highlighted in green in accordance with the practice related to information that has not been communicated to the United Nations in conformity with the [1975 UN Registration Convention], or the [UNGA Resolution 1721 (XVI) B] of 20 December 1961*". However, in this particular case, the Netherlands didn't mention Article XI of the Outer Space Treaty as the legal basis for their communication. As informally explained by the Dutch representative at the UNCOPUOS Legal Sub-Committee, Mr René Lefeber, "*Article XI OST provides a legal basis to furnish information to the UNSG with respect to activities in outer space. With respect to space objects in respect of which the Netherlands is not the launching state but in respect of which the Netherlands exercises jurisdiction (e.g. NSS satellites), the Netherlands is not obliged to furnish any information on the basis of the Registration Convention or Resolution 1721B(XVI). However, in the absence of a launching state furnishing correct information to the UNSG with respect to such a space object, the Netherlands is willing to provide information to the UNSG on a voluntary basis in order to secure transparent and correct records of the UN. Article XI OST provides the Netherlands with the legal basis to furnish such information*".

Apart from this provision, it seems that the silence of national laws about the communication of information to the UN Secretary General on basis of Article XI OST is intended to leave room for a case-by-case appreciation by Governments in the substance of such information.

Difficulties and obstacles in the implementation of Article XI

- difficulties related to the formulation of Art. XI
- difficulties related to non disclosure of strategic information (military activities, commercial activities, governmental activities)

V. Further relations with current concerns in outer space activities and possible recommendations

- Space Situation Awareness
- Space Debris Mitigation
- Space Traffic Management
- Draft "Codes of Conduct" (UNCOPUOS, CODUN)

Rapporteur's Notes

1. Keywords to be defined:
   1.1. "International cooperation"
   1.2. "information"
   1.3. "peaceful exploration": c.f. Preamble and Article I

2. Space situation awareness
   2.1. From a practical viewpoint, Art. XI deals with the later development of the concept of space situation awareness
   2.2. e.g. space debris, military activities (?)
   2.3. Comparison with similar treaties of the time may be useful

3. Implementation issues: Art. XI should consider
   3.1. Role of the UN OOSA
   3.2. National legislation
   3.3. Registration process of States (c.f. Art. VIII OST and REG)

4. Information
   4.1. Monserrat Filho: Is the purpose of Art. XI to ensure that information is sent by the Secretary General of the UN to the scientific community?
   4.2. Jakhu: Does Art. XI, in its mention of "peaceful exploration", then exclude information relating to military activities?
   4.3. Kerrest: Space activities must be peaceful – so military activities that are not aggressive are also consider "peaceful". There is a movement that excludes "military activities" from the fold of "peaceful exploration", but this is a huge risk to take in terms of excluding too much from the legal framework.
   4.4. Suess: ESA recently changed its position on the topic, and now regards peaceful as "non-aggressive"
   4.5. Schmidt-Tedd: If all activities in the context of "peaceful exploration" are regarded in the context of Art. XI to be in the open domain, Art. IX should pose no difficult or contentious questions.
   4.6. Vereshchetin: Is it practicable to have such an interpretation of "peaceful"? e.g. the US is not obliged to make public information of space assets used in military conflicts or wars.
   4.7. Schmidt-Tedd: It is not realistic to discuss the content and purpose of Art. IX in a military context.

Article XII – Visits of Stations by Other States

Prof. Dr. Lesley Jane Smith
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Presentation Content

Slide 1: **Article XII**

All stations, installations, equipment and space vehicles on the Moon and other celestial bodies shall be open to **representatives** of other States Parties to the Treaty on a basis of **reciprocity**. Such representatives shall give **reasonable advance notice** of a projected visit, in order that **appropriate consultations** may be held and that **maximum precautions** may be taken to assure **safety** and to **avoid interference** with normal operations in the facility to be visited.

Slide 2: Backdrop or parameters of space law and OST

- Space treaties as additions and contribution to general int'l law
  - Entry of mankind into space
  - From theory to practice of space operations
  - Basic principles and subordinate rules coming into operation
  - From launches to experiments, to fact gathering & utilisation etc.
- States, IGO's (e.g. ESA), NGOs (private firms)

Slide 3: Approach

- Introduction
- Negotiations and Drafting History
- Interpretation
- ISS (IGA) and practice under Art. 9(3)
- Future Perspectives
  - in view of imminent technological developments

Slide 4: Stations, installations, equipment etc.

- From a technical viewpoint:
  - small in nature or large;
  - devised to help sustain human life, or
  - used as purely information / resource collecting devices
  - ALSEP (Apollo lunar surface experiment package stations) Apollo 11: EASEP (Early Apollo Scientific Package)
  - Exploration developments/ robotic rovers e.g X Prize, Google Lunar X Prize, Russian Lunar-Globe; Chandaryaan I, II (2008, 2012), Mars vehicle;
  - NASA permanent lunar pole outpost in planning

Slide 5: Interpretation of Article XII

- Travaux preparatoires
- International law
- Doctrine

Slide 6: Travaux Preparatoires

- Article XII was not in the draft Treaty on the 16 June 1966
- First draft presented by the US did not contain reciprocity principle
- USSR proposed reciprocity
- Italy: free immediate access, provided it does not 'imperil the life of the personnel and the functioning of the installation'
- Japan: maximum precautions

Slide 7: Basis of Art XII

- No right of veto= legal obligation to grant access
- Visits possible on fulfilment of **two** conditions:
    - **principle of reciprocity**, and
    - **advanced notice** *and* **after holding appropriate consultations**

Slide 8: Concept of Inspection

- Article I para 2:
- = free access to all areas of CBs,
- and *per* Art XII
- to all stations, installations, equipment and space vehicles on moon and other celestial bodies

Slide 9: International law

- Antarctic Treaty (AT) as parallel operative int'l law provision
- Art. VII *(*AT*)* – Contracting Parties' right to designate observers to carry out inspections
- farther-reaching than Art. XII OST, notice only
- *Cf.* Art. 15, 2nd.s. MOON:
  To this end, all equipment, facilities and stations and installations on Moon shall be open to other State Parties

Slide 10: Principles of cooperation reinforced in UN Docs

- Tenor: principles of co-operation and equality of states as international obligation binding on all states
- *UNGA Friendly Relations Declaration 1970* Res. 2625 – principle of cooperation
- *UN Transparency Report* Oct 2006 – consultations (*ergo* Art XII) as a confidence-building measure, inbuilt in OST

Slide 11: Art XII Terms / Concepts

- Representatives
- Reciprocity
- Stations, installations, equipment etc.
- Reasonable advance notice
- Projected Visit
- Appropriate consultations
- Maximum precautions
- Safety
- Interference (with normal operations)

Slide 12: Appropriate international consultation

- OST: no definition of appropriate consultation in the *travaux*
- Int'l law, UN: "taking into account the views of" *or* "bearing in mind the recommendations of"
    - without agreement with them
- To be conducted in good faith (as per *Lake Lanoix* Arbitration)

Slide 13: Appropriate international consultation

- One view: consultations with scientists to evaluate the risks to other uses of outer space
- Per USSR and USA – just normal diplomatic consultations
- "Appropriate" = possibly parallel to the language of Article IX, that implies undertaking consultations prior to activity in question
- ISS Art. 9(3) ='use' prohibited if no prior, timely consultation

Slide 14: Representative

- Wording does not use "astronaut"
- Whether this implies difference
    - is the concept broader / narrower?
- Cf. with 'representatives' (and observers) in the Antarctic Treaty, Article VII

Slide 15: Reciprocity

- Int'l law: any state claiming a right under a generally applicable rule must accord all other states that same right.
  = States will claim rights they are prepared to see generalised
  Example: the Truman Proclamation

Slide 16: Maximum Precautions

- Int'l law: *precautionary principle* asserts that, where there is doubt as to the scientific evidence behind any potential threat to the environment, then precautions should be taken
- Decl. on Protection of North Sea (1987)
- Arguable whether "precautions" in Article XII OST have anything to do with precautionary principle.
- Possibly where environmental concerns for Moon

Slide 17: Doctrine

- *Vlasic* article: Article XII OST secures the compliance with OST arms control provisions of Article I (2).
- Compares Article XII with Article VII Antarctic Treaty
- *Cf. Goh* article for details on friendly relations and cooperation; citing Petras,
  Article XII *to ensure implementation of the demilitarization provisions* in Article IV

Slide 18: Ethical Aspects of Space Law

- *Ethics of Outer Space UNESCO Document 2004*: space law principles as moral obligations and legal restraints; principles reaffirmed i.e. moral decision- making, public involvement, transparency, principles of research in outer space, common heritage of mankind;
  = Article XII implies that all space installations should be accessible to all states with *convenient* notice
- = Consultation

Rapporteur's Notes

1. Keywords to Define
   1.1. "Reciprocity"
   1.2. "Representatives"
   1.3. "appropriate consultation"
   1.4. "maximum precaution"
   1.5. c.f. also Article I, para. 2

2. Presentation Overview

2.1. Space treaties are in addition to general international law
2.2. It is important to compare the practice especially in regard to Art 9 of the ISS IGA
2.3. Interpretation of Art. XII:
    2.3.1. Text of Art. XII did not appear in the draft Treaty
    2.3.2. USSR proposed the term “reciprocity”
    2.3.3. Italy proposed “no danger”
    2.3.4. Japan proposed the idea of “maximum precaution”
2.4. Important to emphasise that there is no veto right in this case: there is an obligation to cooperate with 2 conditions:
    2.4.1. Reciprocity and
    2.4.2. Advance notice
2.5. In international law reference should also be made to the precautionary principle.

3. Practice
    3.1. Relation with Article 9(3) of the ISS IGA
    3.2. c.f. Antarctic Treaty system
        3.2.1. Kerrest: The Antarctic Treaty system is very efficient, and it would be very interesting that the outer space regime will also be developed in the same vein. The only issue of course is that outer space, in particular the use and exploration of the Moon, the facility must be exclusively peaceful and there should be no room for dual use facilities.

4. Standard of Care
    4.1. Koroma: Rather than a mere “precaution”, the obligation envisaged here is a certain “duty of care” and “standard of care”

Article XIII – International Intergovernmental Organisations

Dr. Ulrike M. Bohlmann *(in absentia)*
Legal Officer, Legal Department, Office for Institutional Relations, European Space Agency, France

Dr. Gisela Süß
Legal Officer, Legal Department, European Space Agency, France

Presentation Content

Slide 1: *Negotiations and Drafting History*

- § 5 of the Declaration of legal principles of December 1963
- Reluctance of the Soviet Union to concede any *locus standi* to International Organisations in space activities
- Proposal by the UK: declaration by the International Organisation that it accepts and undertakes to comply with the provisions of the OST

Slide 2: *The Compromise*

- Article VI. third sentence OST: IOs are responsible for compliance with provisions of OST
- Article XIII OST
- Inclusion of a specific Article on International Organisations in the Outer Space Treaty
- Means by which the existence of IOs in the space field is recognised, but no recognition of their legal capacity or equality to States Parties of the OST

Slide 3: *Status of IOs in the Outer Space Treaty (1/4)*

- Legal precedence of States Parties to the OST and joint responsibility of States and IOs in the conduct of space activities
- Under the OST IO's have only obligations (Article VI third sentence), but no rights
- IOs cannot be a party to the OST, but are bound by Article VI third sentence in the same manner as States, which are not members of the OST, but members of an IO (compatibility with the maxim *pacta tertiis nec nocent nec prosunt* codified in Article 34 and 35 of the Vienna Convention on the Law of the Treaties?)

Slide 4: *Status of IOs in the Outer Space Treaty (2/4)*

- Article XIII first sentence recognises the fact that space activities may be carried out not only by a single State Party but also jointly with other States or within the framework of IOs
- Article XIII second sentence leaves the solution of "any practical question" arising in connection with an IO's space activities to a specific agreement/arrangement between a State Party to the OST and the IO or one or more States member of that IO.

Slide 5: *Status of IOs in the Outer Space Treaty (3/4)*

- What does the term "any practical question" mean? Implementation of the principle of solidarity referred to under Article VI third sentence OST?

- For the implementation of Article XIII second sentence it may be useful to distinguish two different cases:
  - Relationship between an IO and a State Party to the OST, which is a member of this IO

- Relationship between an IO and a State Party to the OST, which is not a member of this IO

Slide 6: ***Status of IOs in the Outer Space Treaty (4/4)***

- In the case of a "practical question" arising between an IO and a State Party to the OST, which is a member of this IO, implementation may be anticipated either in the constitutional acts of the IO or in its the internal rules
- Examples: ESA Resolution on internal effects of the acceptance of Liability Convention, EUMETSAT, others?

Slide 7: ***Status of IOs in the other Space Treaties***

- Difference between the status of IO's under the OST and under the other space conventions and agreements, which recognise implicitly the legal personality of an IO

- 2 conditions required for the application of these conventions and agreements to IO
- (Article 6 Rescue Agreement, Article XXII Liability Convention, Article VII Registration Convention, Article 16 Moon Agreement):
  - Declaration by IO to accept rights and obligations
  - Majority of members of the IO are Members of the respective Convention or Agreement and the Outer Space Treaty

Rapporteur's Notes

1. Keywords to define
   1.1. "International Organisation"
   1.2. Comparative analysis between Arts. III, VI and XIII

2. Substantive issues
   2.1. Place and role of international organisations in the OST
   2.2. Significance of a specific Article related to international organisations
   2.3. IOs in this Article hold only obligations, but have no rights accruing
   2.4. IOs cannot be party to the OST

3. Historical Development and Involvement of IOs
   3.1. Vereshchetin: On the theme that USSR was reluctant to give IO status in international law – is Russia still of the same view – is this statement still true? Russia has always had close cooperations with IO (e.g. INTERSPUTNIK and ESA)
   3.2. Vereshchetin: It was only important to Russia from a doctrinal viewpoint – as Russia historically never did recognise the standing of IOs in international law. However this was a doctrinal position from a very long time ago, and the views of Russia may have changed on the matter.
   3.3. Marchisio: This is the first time that a treaty at international law recognises that IOs should participate in the regime.
   3.4. Jankowitsch: Art. XIII is important in this context due to the emergence of a European space policy, and a European space strategy. Under the obligations of ESA and EU member States, which are also parties to the OST, it is important to carefully consider the role and position of IOs in international space law.
   3.5. Koroma: In this context, the accruement of obligations without rights for IOs is understandable. Note that this is also not the only field or aspect in international law in which such an accruement of obligations without a corresponding accruement of rights has occurred.
   3.6. Suess: ESA is also viewed as an actor in its own right in the space sector.

Articles XIV – XVII – Miscellaneous Articles

Dr. Gérardine Goh

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Presentation Content

Slide 1: Introduction / Negotiations and Drafting History

- Overview of Articles
  - Article XIV: Signature and Ratification
  - Article XV: Amendments
  - Article XVI: Withdrawal
  - Article XVII: Authenticity

- Common procedural provisions

Slide 2: Interpretation of Provisions

- Article XIV
  - Take-up rate in terms of sigature and ratification
  - Depository Governments

- Articles XV and XVI
  - Amendments and Withdrawal: Intentions of the drafters

- Article XVII
  - Five authentic languages
  - Issues with language and authenticity

Slide 3: Future Perspectives

- Specific treaties arising from the OST (foreshadowing **CoCoSL** Vol. II)
  - Article V: ARRA
  - Article VII: LIAB
  - Article VIII: REG
  - Preamble, Articles I, II: MOON

- Gradual slow-down and halt of space law treaty-making
  - UN GA Resolutions (**CoCoSL** Vol. III)

- Proposal of a UN Convention of the Law of Outer Space
  - Russian proposal
  - In vein of the 1982 UN Convention on the Law of the Sea

Rapporteur's Notes

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Closing and Conclusions

The First CoCoSL Authors' Workshop was brought to a close with a round-table discussion, followed by conclusions from the three Editors of CoCoSL, *Prof. Dr. Stephan Hobe*, *Dr. Bernhard Schmidt-Tedd* and *Prof. Dr. Kai-Uwe Schrogl*.

Round-Table Discussion

Several topics of discussion were raised by the participants in the round-table discussion:

1. Function of the author in writing a Commentary

    1.1. It was expressed that an author in writing a Commentary should provide the historical context of the provision, together with subsequent State practice and ambient developments.
    1.2. The author should not inject a minority view or position that is not reflected in State practice. In the case where the author holds a dissenting view as opposed to the actual State practice and the main academic view, the author should nonetheless discuss the majority position in detail, before perhaps stating the minority position. In this case, the author is under an obligation to highlight the minority position as one that deviates from the majority view.
    1.3. The role of the author in the interpretation of the provisions was also discussed. Participants agreed that the authors should not interpret the provisions in ways in which the drafters and the actors had not intended or executed.

2. The place of the OST in international space law

    2.1. The place and position of the OST in international space law and general international law was discussed.
    2.2. It was noted that the OST is often referred to as the "Magna Carta" / "Constitution" / "Charter" of space law. Concern was expressed with the use of these and similar words, since they imply a constitutional context that is more appropriate in the national and domestic law context.
    2.3. Further, it was expressed that the OST is not a "Constitution" per se, and that the Editors of CoCoSL should be very careful in allowing this description of the OST.

3. Scope of the Commentary

    It was mentioned that the Commentary should be an authoritative expression of the state of international law. Therefore it would be pertinent to define the exact scope of the Project, and the intended outcome of the Project. This is important as it affects the almost 100 States Parties to the OST. The Editors were asked to include an Editors' preface that would delineate the actual scope of the undertaking, and the intended audience.

4. Issue of Definitions

    4.1. There was some concern about the issue of defining terms in the OST. There is no provision providing for the definition of key terms of art used in the OST, and this was

intended to be so by the drafters of the OST. It was questioned as to whether it would be appropriate for authors to define terms in the OST, when the drafters of the OST had omitted to do so.

4.2. Further there was the issue of the location in the Commentary where these definitions should be placed. Some authors were of the opinion that a term should be defined when it first appears. However, there was concern that the location at which a term first appears may not be the most appropriate chapter to define the term.

4.3. It was suggested that terms should be defined at the locations where they play a central role to the interpretation of the particular provision.

5. Overlaps in Chapters

5.1. The issue of overlaps in chapters, both in Volume I and in the later Volumes of **CoCoSL**, was raised.

5.2. Authors were encouraged to communicate with their corresponding colleagues upon discovering possibilities of overlaps. The Editors would also work to ensure that there are no overlaps, or conflicting ideas, between the chapters.

6. Reference to Other United Nations Treaties

6.1. It was agreed that the nomenclature of the United Nations would be used for reference to the other UN space law treaties, viz.:

6.1.1. The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (ARRA)

6.1.2. The Convention on International Liability for Damage Caused by Space Objects (LIAB)

6.1.3. The Convention on Registration of Objects Launched into Outer Space (REG)

6.1.4. The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (MOON)

7. Travaux préparatoires

7.1. Some authors mentioned that they faced many difficulties in trying to obtain documents from the United Nations with relation to the OST. The Editors were asked if the **CoCoSL** Project would have sufficient resources so as to assemble all the relevant documents from the travaux préparatoires of the OST.

7.2. The “Manual on Space Law” by Jasentuliyana and Lee (eds.) (4 volumes) was recommended as a possible start in researching travaux préparatoires of the OST.

7.3. The Editors agreed to look into the question and revert as soon as possible.

Closing

In closing, the three Editors of **CoCoSL**, *Prof. Dr. Stephan Hobe, Dr. Bernhard Schmidt-Tedd* and *Prof. Dr. Kai-Uwe Schrogl*, expressed their appreciation for the participants' time and energy. The Workshop was a fruitful experience for the Editors, and the particularly interesting discussion of the Outer Space Treaty begs the question: "What next?"

The Authors of the Commentary have an interesting few months in front of them, in which the actual writing of the Commentary will take place. The Editors expressed their conviction that the Authors would rise to the challenge placed before them in producing a detailed, reliable Commentary on the Outer Space Treaty, emphasising the importance of the rule of law in outer space. The Editors further expressed their belief that the Commentary would prove to be an important scientific work for the development of international space law.

The Authors were encouraged to take an active role in communicating with each other online on the **CoCoSL** Forum, available at http://www.cocosl.com. The Authors were also reminded of the final deadline for manuscript submission, which is ***30 September 2008***.

The Editors then expressed their thanks to the people who were instrumental in the organisation of the Workshop. Michel Jakob and Ségoléne van den Steen from ESPI were indispensable in assisting with the logistics of the Workshop, and Gérardine Goh was responsible for the organisation of the Workshop as well as the academic content and programme of the Workshop.

In light of the effective discussions and productive outcome of the Workshop, a second **CoCoSL** Authors' Workshop is planned for January 2009. This second **CoCoSL** Authors' Workshop will involve the Editors, members of the Scientific Advisory Board, and Authors from Volumes I, II and III. The second Workshop promises to be just as intellectually exciting as the first Workshop was, and the Editors expressed their hope that all Authors and members of the Scientific Advisory Board will be able to come together again for the second **CoCoSL** Authors' Workshop.

The Workshop was then officially closed with a photograph-taking session and an informal closing luncheon.

Documentation that will be sent to members of the Scientific Advisory Board and the Authors following the Workshop include

1. Proceedings of the First **CoCoSL** Authors' Workshop
2. **CoCoSL** Author Guidelines
3. **CoCoSL** Citation Guidelines
4. **CoCoSL** Content Guidelines
5. List of Possible Terms for Definition
6. Keywords in the Outer Space Treaty

Appendix A: Photographs

Welcome Luncheon

(from L): Prof. Dr. Stephan Hobe and Dr. Nicola Rohner

(from L): Dr. Michael Gerhard and Mr. Niklas Hedman

(from L): Assoc. Prof. Steven Freeland and Prof. Dr. Frans G. von der Dunk

(from L): Prof. Vladlen S. Vereshchetin, Judge Abdul G. Koroma, Prof. Dr. Anatoly Kapustin

Clockwise: Dr. Olivier Ribbelink, Assoc. Prof. Steven Freeland, Prof. Dr. Frans G. von der Dunk, Prof. Sergio Marchisio, Ms. Viviana Iavicoli, Prof. José Monserrat Filho

(From L): Prof. Dr. Lesley Jane Smith, Dr. Bernhard Schmidt-Tedd, Dr. Nicola Rohner

(From L): Ms. Julia Neumann, Ms. Julie Abou Yehia

Sessions

(From L): Prof. Dr. Kai-Uwe Schrogl, Dr. Bernhard Schmidt-Tedd, Prof. Dr. Stephan Hobe, Editors of **CoCoSL**

Workshop Session: Dr. Bernhard Schmidt-Tedd, Presentation on Article VIII of the Outer Space Treaty

Prof. Sergio Marchisio: Presentation on Article IX of the Outer Space Treaty

Workshop Session: (From L) Dr. Michael Gerhard, Prof. Dr. Frans G. von der Dunk, Dr. Olivier Ribbelink, Prof. Dr. Ram Jakhu

Dr. Gérardine Goh: Presentation on behalf of the authors of Article XI, Outer Space Treaty

Moderation of Workshop Session 4: (From L) Ms. Julie Abou Yehia, Prof. Vladlen S. Vereshchetin, Prof. Dr. Kai-Uwe Schrogl

Workshop Session 3: (From L) Dr. Michael Gerhard, Prof. Dr. Stephan Hobe, Prof. José Monserrat Filho, Judge Abdul G. Koroma, Prof. Vladlen S. Vereshchetin, Prof. Armel Kerrest

Workshop Session: (From L) Prof. Vladlen S. Vereshchetin, Prof. Dr. Kai-Uwe Schrogl, Judge Abdul G. Koroma, Ambassador Dr. Peter Jankowitsch

Moderation of Workshop Session 2: (From L) Dr. Nicola Rohner, Judge Abdul G. Koroma, Dr. Bernhard Schmidt-Tedd

Prof. Dr. Lesley Jane Smith: Presentation of Article XIII of the Outer Space Treaty

Moderation of Workshop Session 1: (From L) Ms. Julia Neumann, Ambassador Dr. Peter Jankowitsch, Dr. Gérardine Goh

Workshop Session: (From L) Prof. Dr. Lesley Jane Smith, Dr. Gisela Suess, Dr. Nicola Rohner

Prof. Dr. Anatoly Kapustin, Presentation on Article X of the Outer Space Treaty

Conclusion and Closing: (from L) Prof. Dr. Stephan Hobe, Dr. Bernhard Schmidt-Tedd, Prof. Dr. Kai-Uwe Schrogl

Session Breaks

Workshop Session Coffee Break

(from L): Prof. Dr. Kai-Uwe Schrogl and Prof. Dr. Frans G. von der Dunk

(From L): Prof. Dr. Anatoly Kapustin and Dr. Michael Gerhard

(From L): Prof. Dr. Kai-Uwe Schrogl, Judge Abdul G. Koroma, Dr. Nicola Rohner

Workshop Dinner

Clockwise from left: Dr. Bernhard Schmidt-Tedd, Prof. Monserrat Filho, Dr. Michael Gerhard, Prof. Dr. Frans G. von der Dunk

Judge Koroma's Dinner Speech

Clockwise from L: Ms. Julia Neumann, Dr. Bernhard Schmidt-Tedd, Prof. José Monserrat Filho, Dr. Michael Gerhard, Mrs. Svetlana Vereshchetina, Prof. Vladlen S. Vereshchetin, Prof. Dr. Frans G. von der Dunk and Assoc. Prof. Steven Freeland

Clockwise from L: Prof. Armel Kerrest, Prof. Dr. Ram Jakhu, Prof. Dr. Lesley Jane Smith, Ambassador Dr. Peter Jankowitsch, Mme. Lahner, Prof. Dr. Kai-Uwe Schrogl

Clocwise from L: Dr. Olivier Ribbelink, Dr. Nicola Rohner, Judge Abdul G. Koroma, Prof. Dr. Stephan Hobe, Prof. Sergio Marchisio, Ms. Viviana Iavicoli, Mr. Niklas Hedman, Prof. Dr. Anatoly Kapustin, Dr. Gérardine Goh

*The **CoCoSL** Project thanks Ms. Julia Neumann for the permisison to re-print the photographs in Appendix A.*