

NATIONAL SPACE LEGISLATION - THE WORK OF THE LEGAL SUBCOMMITTEE OF UNCOPUOS 2008-2011

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In 2007, the Legal Subcommittee of the United Nations Committee for the Peaceful Use of Outer Space, on the initiative of the United States of America, decided to put a new item on the agenda, entitled “General Exchange of information on national legislation relevant to the peaceful exploration and use of outer space”. A multi-year program of work was decided upon for 2008 to 2011. In 2008, a working group was established which should prepare a report for the Legal Subcommittee in 2011. The present paper will present and analyze the work of the working group in the years 2009, 2010 and 2011 from the perspective of the chair.

The working group started its deliberations on the basis of responses received from Member States relating to national legislation on the regulation of governmental and non-governmental space activities. In addition, it examined documents prepared by the United Nations Office for Outer Space Affairs on previous agenda items relating to the concept of the launching State and to the registration practice of States. The work was then structured around a number of questions put to the Member States. First, the different reasons for enacting or non-enacting national space legislation were discussed. Secondly, the activities targeted by such legislation were identified. Thirdly, national jurisdiction over space activities was examined. Fourthly, an exchange of information on the national authorities competent for registration, authorization and supervision in the different countries took place. Fifthly, the conditions to be fulfilled for registration and authorization were discussed. Sixthly, the different regulations and practices concerning liability and insurance were taken note of. Finally, the working group examined how compliance with the provisions of national space legislation was monitored and enforced.

The paper analyzes the deliberations of the working group and highlights some of the most important outcomes. It concludes by an analysis of the report of the working group which will consist of a summary of the work conducted, an overview over national space legislations, findings of the working group and conclusions.

I. INTRODUCTION

The commercialization of space activities has not been without influence on the agenda setting of the Legal Subcommittee of the UN Committee for the Peaceful Uses of Outer Space (COPUOS). Private companies offering space services posed new and largely unexpected problems as to the legal framework of such activities. As the existing UN treaties on outer space only bind States and not commercial entities, a need arose to find ways and means to ensure that also those entities would comply with international space law and respect its principles.¹ Several States have responded to this

need and enacted national space legislation. However, the nature and content of the regulations on space activities varies considerably.² Yet, for the future of commercial space flight the diversity of national regulations and also its lack pose a serious

Commercial Use of Outer Space (2002); see also Stephan Hobe/Bernhard Schmidt-Tedd/Kai-Uwe Schrogl (eds.), *Project 2001 Plus – Towards a Harmonised Approach for National Space Legislation in Europe* (2004); more recently Sandeepa Bhat B. (ed.), *Space Law in the Era of Commercialisation* (2010).

² See the overview over a number of national space laws in Ram S. Jakhu (ed.), *National Regulation of Space Activities* (2010); see also Christian Brünner/Edith Walter (eds.), *National Space Law. Development in Europe – Challenges for Small Countries* (2008); Karl-Heinz Böckstiegel, Marietta Benkö and Stephan Hobe, *Space Law Basic Legal Documents, Volumes 1 to 5*.

¹ See the research project “Project 2001” on the legal framework for the commercial use of outer space conducted by the University of Cologne’s Institute of Air and Space Law and the German Aerospace Centre (DLR): Karl-Heinz. Böckstiegel (ed.), ‘Project 2001’ – Legal Framework for the

problem. In order to ensure the safety and long-term viability of space activities, a more coherent or at least transparent legal framework would be necessary.

The Legal Subcommittee of COPUOS has responded to these needs and introduced a new agenda item under a workplan entitled "General exchange of information on national legislation relevant for the peaceful exploration and use of outer space" in 2007.³ Even before that, the United Nations Office of Outer Space Affairs (OOSA) had dedicated a number Workshops on Space Law organised together with different national and regional space agencies and UN member States to this issue.⁴ The UN workshops have shown that the exchange of information on national space legislation was necessary and useful. In addition, the question was raised if the exchange of information and an agreement on the desirability of national space legislation as such would be sufficient. The practice of States shows that they have interpreted and implemented the international obligations sometimes in divergent ways. Therefore, it can be discussed if there exists also the possibility and desirability to cooperate more

closely and to find ways of harmonizing the content of such legislation to a certain extent. In some areas, such as safety and security, such harmonization appears both necessary and desirable for the establishment of a global level playing field.⁵ The negative experience of the law of the sea shows that the so-called "flags of convenience" cause a serious problem and considerably enhance the risk of incidents and accidents. It appears that in the area of space law, such a development should be avoided from the beginning and that a more cooperative approach could lead to better and more sustainable results. It will be analysed in the following to what extent COPUOS could represent the appropriate forum to achieve this aim.

II. PREVIOUS RELATED AGENDA ITEMS: CONCEPT OF THE LAUNCHING STATE AND REGISTRATION PRACTICE

The increasing commercialization has also presented a challenge to the concept of the "launching State" which is important, in particular, for liability and registration purposes. In addition, the issue of "registration practice" has turned out to be problematic because under the pertinent provisions of the space treaties only one State or international organization has the right and duty to register a space object, and – what is even more disturbing – the registration cannot be altered even in the event of a subsequent change of ownership or control of the space object. For these reasons, the Legal Subcommittee of COPUOS introduced agenda items under workplans on "Review of the concept of the 'launching State'"⁶ and on "Practice of States and international organizations in registering space objects".⁷

The deliberations under these two agenda items in the Legal Subcommittee resulted in the adoption of two resolutions by the General Assembly, the resolution on "Application of the Concept of the

³ Report of the Legal Subcommittee on its forty-sixth session, held in Vienna from 26 March to 5 April 2007, UN Doc. A/AC.105/891, para 136.

⁴ The proceedings of these workshops are accessible on the website of OOSA: <http://www.oosa.unvienna.org/oosa/en/SpaceLaw/workshops/index.html>. See, in particular, the United Nations/Republic of Korea Workshop on Space Law "United Nations treaties on outer space: actions at the national level", Daejeon, Republic of Korea, 3-6 November 2003; the United Nations/Brazil Workshop on Space Law entitled "Disseminating and Developing International and National Space Law: The Latin American and Caribbean Perspective", Rio de Janeiro, Brazil, 22-25 November 2004; the United Nations/Nigeria Workshop on Space Law "Meeting international responsibilities and addressing domestic needs", Abuja, Nigeria, 21-24 November 2005; the United Nations/Ukraine Workshop on Space Law "Status, Application and Progressive Development of International and National Space Law", Kyiv, Ukraine, 6-9 November 2006; and the United Nations/Thailand/European Space Agency (ESA) Workshop on Space Law "Activities of States in Outer Space in Light of New Developments: Meeting International Responsibilities and Establishing National Legal and Policy Frameworks", 16-19 November 2010, Bangkok, Thailand.

⁵ Frans von der Dunk, Fundamental Provisions for National Space Laws, in: OOSA (ed.), Proceedings United Nations/Nigeria Workshop on Space Law: Meeting International Responsibilities and Addressing Domestic Needs (Vienna 2006) 261, 263, see <http://www.oosa.unvienna.org/pdf/sap/2005/nigeria/splawproc05.pdf>.

⁶ Report of the Legal Subcommittee on its thirtieth session, held in Vienna from 27 March to 6 April 2000, UN Doc. A/AC.105/738, paras 78 and 88.

⁷ Report of the Legal Subcommittee on its forty-second session, held in Vienna from 24 March to 4 April 2003, UN Doc. A/AC.105/805, para 135.

Launching State” of 2004,⁸ and the resolution on “Recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects” of 2007.⁹ Both resolutions contain a number of recommendations for member States, with a particular view to national space legislation and also some cautious references to possible harmonization.

The Launching State Resolution recommends that “States conducting space activities, in fulfilling their international obligations under the United Nations treaties on outer space [...] consider enacting and implementing national laws authorizing and providing for continuing supervision of the activities in outer space of non-governmental entities under their jurisdiction.” As regards practices regarding on-orbit transfer of ownership of space objects, the resolution “invites” member States to submit information and recommends that States consider “the possibility of harmonizing such practices as appropriate with a view to increasing the consistency of national space legislation with international law.”

These formulations make it clear, that States are encouraged to enact national space legislation if they have not yet done so. In addition, they should actively engage in an intensive dialogue on the practices of States regarding on-orbit transfer of ownership of space objects which is a recurring issue in commercial space flight. In this respect, States are even recommended considering possible harmonization.

The resolution on Registration Practice does not directly address the need for national space legislation. However, it contains numerous recommendations for States to enhance and improve the practice of registration of space objects. The most appropriate, and with regard to commercial entities perhaps the only way of doing so, is through national space legislation. The resolution on registration practice contains a remarkable amount of details which evidences the desire for a more harmonized approach in this area. This can also be regarded as cautious encouragement towards a more harmonized approach in the national regulation of space activities.

⁸ General Assembly Resolution No. 59/115 of 10 December 2004, UN Doc. A/RES/51/115; see http://www.oosa.unvienna.org/pdf/gares/ARES_59_115E.pdf.

⁹ General Assembly Resolution No. 62/101 of 17 December 2007, UN Doc. A/RES/62/101; see http://www.oosa.unvienna.org/pdf/gares/ARES_62_101E.pdf.

III. A NEW AGENDA ITEM AND ESTABLISHMENT OF A WORKING GROUP

The two agenda items and pertinent General Assembly resolutions have paved the way for a addressing the issue of national space legislation in a more comprehensive manner. In 2007, the Legal Subcommittee agreed to include a new agenda item “General exchange of information on national legislation relevant for the peaceful exploration and use of outer space” under the following four-year workplan:

2008: Request to Member States for national legislation relating to governmental and non-governmental space activities. Presentations by Member States of reports on their national legislation;

2009: Examination, in a working group, of the responses received in order to develop an understanding of the manner in which Member States have regulated governmental and non-governmental space activities;

2010: Working group continues to examine responses received and begins drafting its report, including conclusions;

2011: Working group finalizes report to Legal Subcommittee.¹⁰

At the end of its 2008 session, the Subcommittee noted that the exchange of information on national legislation was very valuable for any State involved in space activities and allowed to examine the main developments taking place. Such information would greatly assist State in developing national space legislation and contribute to the development of international space law and would help to identify common principle, norms and procedures.¹¹ It agreed that Irmgard Marboe (Austria) should act as chair of the working group to be established in 2009.¹²

In 2009, the working group held its first meeting. It started to conduct its discussion on the basis of seven main questions prepared by the chair: (a) Reasons for States to enact national space legislation; (b) Scope of space activities targeted by national regulatory frameworks; (c) Scope of

¹⁰ Report of the Legal Subcommittee on its forty-sixth session, held in Vienna from 26 March to 5 April 2007, UN Doc. A/AC.105/891, para 136.

¹¹ Report of the Legal Subcommittee on its forty-seventh session, held in Vienna from 31 March to 11 April 2008, UN Doc. A/AC.105/917, paras 142 and 145.

¹² Report of the Legal Subcommittee on its forty-seventh session, held in Vienna from 31 March to 11 April 2008, UN Doc. A/AC.105/917, para 146.

national jurisdiction over space activities; (d) Competence of national authorities in the authorization, registration and supervision of space activities; (e) Conditions to be fulfilled for registration and authorization; (f) Regulations concerning liability; (g) Compliance and monitoring.¹³

The delegations contributed actively in the discussion and many delegations made substantial contributions. It turned out, however, that additional issues needed further consideration, such as the regulation by States of transfers of ownership of space objects and of transfers of authorized space activities to third parties, the participation of private individuals in space flights and the treatment in service-provider contracts as well as responsibility for collisions of satellites in outer space.¹⁴

IV. DISCUSSION IN THE WORKING GROUP

The discussion in the working group has shown that there exists a remarkable diversity in the way in which States regulate national space activities. The reason for this diversity is that States have adapted their national legal frameworks according to their specific needs and practical considerations, the range of space activities conducted and the level of involvement of the private sector. National regulatory frameworks for space activities represent different systems with either unified acts (such as in the United Kingdom, in Belgium, in the Netherlands or in France) or a combination of national legal instruments, ranging from administrative regulations to decrees and laws (such as in the United States and in the Russian Federation).

As regards the scope of space activities targeted by national regulatory frameworks, the working group noted a broad variety of what was considered to be a "space activity". Most States apply their national space law to the launching of objects into outer space, the operation of a launch or re-entry site, and the operation and guidance of space objects. Some States have a broader concept of space activity and include also the design and manufacturing of spacecraft or the application of space sciences and

technology such as that used for Earth observation and telecommunications.

Concerning national jurisdiction over space activities there are also diverging approaches. Most States require authorization to be obtained for space activities carried out from their territory. However, as regards the applicability of the national laws to activities outside the national territory in which nationals were involved, such as natural or juridical persons, the practice of States varies considerably. Some States include them in their national regulatory framework (such as the United States, the United Kingdom or France), others only under certain conditions (Belgium, the Netherlands). Members of the working groups expressed their concern that this could lead to a situation where no national law would be applicable. On the other hand, duplicative requirements of authorization should also be avoided.

With regard to the conditions to be fulfilled for registration and authorization, most States provide for ways of ensuring that the space activity does not create a significant risk of personal injury, environmental damage or damage to property. Conditions concerning safety and technological standards are also closely linked to States' concern about meeting space debris mitigation requirements. Some States examine the professional and financial qualifications of the applicant (Belgium, the Netherlands, France), while others refrain from such an approach (United States). Most States involve national security and foreign policy interests in the authorization and licencing procedures.

In terms of regulations concerning liability, several States have established ways of seeking recourse from operators which is achieved in most cases by introducing a national liability regime for space operations. However, the solutions for liability obligations and indemnification procedures as well as insurance requirements and the fixation of ceilings vary considerably. While some States have adopted the concept of the "maximum probable loss" (United States, Australia), others have amounts to be determined by a State authority, either on a case-by-case basis (Belgium, South Africa) or by a statutory instrument (United Kingdom, France). Some States provide for a State guarantee for damage caused by licensed space activities while others are more reluctant in this regard.

In view of compliance and monitoring, most States apply procedures for the supervision and monitoring of space activities, whether by in situ inspections or more general reporting requirements. There are administrative measures for minor

¹³ Report of the Chairperson of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, UN Doc. A/AC.105/935, Annex III, para 7.

¹⁴ Report of the Chairperson of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, UN Doc. A/AC.105/935, Annex III, para 17.

violations and sanction regimes, including penal sanctions and imprisonment (Sweden up to one year, Belgium up to 8 days, South Africa up to 10 Years) for more serious offences.

As regards the way forward, it was agreed that member States should be invited to respond to the questions introduced by the chair in the working group. States that had not yet enacted national space legislation should be invited to submit information on the reasons for the absence of such legislation.¹⁵ Furthermore, the Secretariat was asked to prepare a paper providing a schematic overview of existing national regulatory frameworks based on information received from member States.¹⁶

By the Subcommittee's session of 2010, a number of States had replied to the questions sent out by the Secretariat and the Secretariat had prepared a first draft of the schematic overview of national regulatory frameworks for space activities.¹⁷ Towards the end of the session, the working group started considering a draft paper presented by the chair containing the tentative structure of the final report of the working group.

The working group agreed that one of the main results of its work should be a set of elements for consideration by States enacting national space legislation. After some discussion, it agreed that the following seven regulative categories should be contained in the list: "Scope of application", "Authorization and licensing", "Continuing supervision of activities of non-governmental entities", "Registration", "Liability and insurance", "Safety" and "Transfer of ownership or control of space objects in orbit".¹⁸

The schematic overview over national space legislation should show the same regulative categories. The working group agreed that the schematic overview, when finalized, would serve as an important source of information on how States regulated their space activities.¹⁹ The Legal Subcommittee, in addition, encouraged States to continue to submit the texts of laws and regulations, as well as of policy and other legal documents, related to space activities, to the Office of Outer

Space Affairs which maintains a database on national space legislation.²⁰

V. ENVISAGED RESULT OF THE WORKING GROUP ON NATIONAL SPACE LEGISLATION

As its title indicates, the agenda item "General exchange of information on national legislation relevant to the peaceful exploration and use of outer space" was primarily meant to provide up to date and comprehensive information on the regulation of space activities in member States. The working group was established to facilitate this exchange of information in an informal working atmosphere with enough time for questions and discussion. The member States welcomed this opportunity and took actively part in the deliberations. In addition, written information was collected and made available to the member States.

The working group, upon completion of its multi-year workplan, will issue a comprehensive report consisting of four main parts and two annexes.

The report as such will contain a summary of the documents reviewed (Part I), a brief overview over existing national space legislation (Part II) as well as findings (Part III) and conclusions (Part IV).²¹

Annex I will contain the seven "regulative categories" which represent the set of elements for consideration by State in enacting national space legislation and also indicate the international basis of the respective category, for example the relevant Article in the Outer Space Treaty of 1967.

Annex II will be the schematic overview of national space legislation prepared by the Secretariat on the basis of replies received by member States.

In 2011, a "Draft report of the Working Group on National Space Legislation Relevant to the Peaceful Exploration and Use of Outer Space"²² was presented by the chair for consideration by the working group. The Secretariat had prepared a revised version of the schematic overview of national regulatory frameworks for space activities.²³ The working group conducted a detailed review of the draft report. It noted that it provided the necessary basis for finalizing the work of the working group under its workplan. However,

¹⁵ Report of the Chairperson of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, A/AC.105/935, Annex III, para 18.

¹⁶ *Ibid.*, para 19.

¹⁷ UN Doc. A/AC.105/C.2/2010/CRP.12.

¹⁸ Report of the Chairperson of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, UN Doc. A/AC.105/942, Annex III, para 21.

¹⁹ *Ibid.*, para 22.

²⁰ Report of the Legal Subcommittee on its forty-ninth session, held in Vienna from 22 March to 1 April 2010, UN Doc. A/AC.105/942, para 158.

²¹ Report of the Chairperson of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, UN Doc. A/AC.105/942, Annex III, para 19.

²² UN Doc. A/AC.105/C.2/2011/CRP.4.

²³ UN Doc. A/AC.105/C.2/2011/CRP.9.

several proposals were made with a view to revise and amend the draft report and the schematic overview in various aspects.²⁴ The main focus was to obtain consistency in the methodology used for summarizing national space legislation and to carefully harmonize the information provided in the schematic overview with the elements to be used in Part II of the report.

The elements of conclusion in Part IV of the report should be further analysed and compared with the findings of the working group, including with regard to the harmonization of terminology. It was agreed that the conclusions should be made available in all official languages of the United Nations in order to enable further considerations on them, including the discussion on the possible development of recommendations of the Legal Subcommittee, the Committee on the Peaceful Uses of Outer Space or the General Assembly. In view of the numerous proposals, the working group agreed that its mandate should be extended for one more year.²⁵ The mandate of the working group, originally ending in 2011, was therefore extended to 2012.²⁶

One of the main tasks in finalizing the report in 2012 will be the formulation of the conclusions representing Part IV of the report. This part of the report is the one which moves from the mere description of existing regulations to a more substantive analysis. This is necessary in order to fulfill the mandate of the working group which includes – besides the facilitation of the exchange of information – also the task “to develop an understanding of the manner in which Member States have regulated governmental and non-governmental space activities”.²⁷

This task which is particularly challenging and complex and involves both legal and political aspects. It remains to be seen what level of detail the conclusions will reach and also what kind of language will be used in order to facilitate – or not

– that the conclusions become useful guidelines for the development of national space legislation in the future.

Even if an overall agreement has developed on what kind of issues have to be considered, there is no consensus on the way how they should be regulated. The focus has been to draw a comprehensive picture on the range of possible solutions. Member States have so far not made any effort in trying to propose solutions which should or would be generally accepted by all States. Put differently, the exchange of information has so far not led to a “harmonization” of approaches. On the contrary, it seems that the member States, even those which have not yet enacted national space legislation, are thoughtful to avoid that their respective situations or systems would be restrained or altered by any recommendation of the Legal Subcommittee.

This may perhaps disappoint observers who had a more ambitious vision of the role of regional or international institutions in the area of national space legislation. A “harmonized” approach of national space legislations, as it has been envisaged by the research project “Project 2011 Plus”,²⁸ or “generally accepted mechanisms to be (in mandatory fashion) incorporated”²⁹ into existing or prospective national space law seems not to be in the near reach.

Nevertheless, also the more limited result can be regarded as a major step forward towards the implementation of international space law in times of commercialization of space flight. Already the general acceptance of the mere obligation to enact national space legislation is important for increasing the safety and sustainability of the use of outer space. The total absence of national space legislation which is still the reality in many States represents a larger threat than the existence of a variety of different systems of authorization and supervision. The Legal Subcommittee has made an important effort to render the task of finding out the applicable rules more easy and, in doing so, has already contributed a lot to the improvement of the rule of law in outer space. The regular update of the schematic overview and of the online database on national space legislation – which of course depends on the readiness of member States to continue to provide information – could ensure that this outcome will keep its value also in the future.

²⁴ Report of the Chair of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, UN Doc.A/AC.105/990, Annex III, para 8.

²⁵ Report of the Chair of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, UN Doc.A/AC.105/990, Annex III, para 12.

²⁶ Report of the Legal Subcommittee on its fiftieth session, held in Vienna from 28 March to 8 April 2011, UN Doc. A/AC./105/990, para 145.

²⁷ Report of the Legal Subcommittee on its forty-sixth session, held in Vienna from 26 March to 5 April 2007, UN Doc. A/AC./105/891, para 136.

²⁸ Hobe/Schmidt-Tedd/Schrogl (eds.), *supra* note 1.

²⁹ von der Dunk, *supra* note 5, 263.