



# General Assembly

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## Committee on the Peaceful Uses of Outer Space

### **Report on the United Nations/Thailand Workshop on Space Law on the theme “Activities of States in outer space in the light of new developments: meeting international responsibilities and establishing national legal and policy frameworks” (Bangkok, 16-19 November 2010)**

#### **I. Introduction**

##### **A. Background and objectives**

1. International and regional cooperation for the peaceful uses of outer space helps to bring the benefits of space technology applications to a wide circle of stakeholders, both governmental and non-governmental, and to intensify and diversify national space programmes. Policy and regulatory frameworks at the national, regional and international levels are of paramount importance in providing the necessary basis for States, developing countries in particular, to meet development goals and address challenges of sustainable development. As part of that process, it is necessary to continue to strengthen the linkages between international space law and the conduct of space activities.

2. Each year, the General Assembly adopts a resolution on international cooperation in the peaceful uses of outer space. In its resolution 64/86 of 10 December 2009, the Assembly reaffirmed the importance of international cooperation in developing the rule of law, including relevant norms of space law, and urged States that had not yet become parties to the international treaties governing the uses of outer space to give consideration to ratifying or acceding to those treaties, as well as incorporating them into their national legislation.

3. National space laws and other regulatory frameworks are necessary for States to implement their obligations under the United Nations treaties and to meet their specific national requirements.



4. Given the growing number of benefits derived from space science and technology applications, the number of space activities conducted by States, intergovernmental and non-governmental entities and the private sector continues to grow. In developing international and regional space cooperation, States should ensure that all actors conducting space activities comply with the requirements of international space law and that this branch of public international law properly reflects the needs of contemporary space activities.
5. The successful implementation and application of the international legal framework governing space activities depend on the understanding and acceptance of that framework by policymakers and decision makers. The presence of suitable professionals, particularly in developing countries, who are able to provide legal advice and disseminate information and knowledge relating to space law is therefore dependent on adequate opportunities for education in space law and policy.
6. In order to promote adherence to the five United Nations treaties on outer space and to assist States in building their capacity in space law, the United Nations, together with the Government of Thailand and the Geo-Informatics and Space Technology Development Agency (GISTDA), with the support of the European Space Agency (ESA) and the Asia-Pacific Space Cooperation Organization (APSCO), organized the Workshop on Space Law on the theme “Activities of States in outer space in the light of new developments: meeting international responsibilities and establishing national legal and policy frameworks”. The Workshop was held in Bangkok from 16 to 19 November 2010.
7. The Workshop provided an overview of the legal regime governing the peaceful uses of outer space, examined and compared various aspects of existing national space legislation and considered the current state of university-level studies and programmes in space law and ways of enhancing the availability and development of such studies and programmes. The main objectives of the Workshop were:
  - (a) To promote understanding, acceptance and implementation of the United Nations treaties and principles on outer space;
  - (b) To promote exchange of information on national space legislation and policies for the benefit of professionals involved in national space activities;
  - (c) To consider trends and challenges in international space law, such as the commercialization of space activities and the increasing number of actors involved in them;
  - (d) To consider the development of space law studies and programmes at the university level, with a view to promoting national expertise and capability in that field;
  - (e) To consider mechanisms for increasing regional cooperation in the peaceful uses of outer space.
8. The Workshop was the seventh in a series of workshops organized by the Office for Outer Space Affairs of the Secretariat to build capacity in space law.

## B. Attendance

9. The Workshop was attended by approximately 130 legislators, Government officials, practitioners and educators working in Government departments and representatives of space agencies, international organizations, national universities, research institutions and the private sector, as well as university students.

10. Invited speakers and participants from the following countries contributed to the Workshop: Austria, Bangladesh, China, Czech Republic, France, Germany, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Lao People's Democratic Republic, Malaysia, Myanmar, Nigeria, Pakistan, Philippines, Republic of Korea, Singapore, Thailand, United Kingdom of Great Britain and Northern Ireland, United States of America and Viet Nam.

11. The following were also represented: the European Space Agency, the Asia Pacific Space Cooperation Organization, the International Institute for the Unification of Private Law (Unidroit), the Economic and Social Commission for Asia and the Pacific, and the Office for Outer Space Affairs. Representatives of the Secure World Foundation also attended the Workshop.

12. Funds provided by the United Nations and the Government of Thailand were used to cover the travel and living costs of 22 participants selected on the basis of their experience and potential to influence the development of space law and policy, build capacity and promote education in space law in their countries.

## C. Programme

13. Representatives of the Ministry of Science and Technology of Thailand, GISTDA, ESA, APSCO and the Office for Outer Space Affairs opened the Workshop with introductory and welcoming statements.

14. The first session of the Workshop focused on the international legal framework governing space activities. Participants were provided with a comprehensive overview of the United Nations treaties and principles on outer space and other legal frameworks applicable to space activities. They discussed and identified the benefits of States becoming parties to the treaties and conducting their space activities in accordance with the United Nations principles on outer space. The following presentations were given:

- (a) Work of the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee;
- (b) Overview of international space law;
- (c) Benefits of becoming a party to the United Nations treaties on outer space;
- (d) Regional and international cooperation: the role of bilateral and multilateral agreements;
- (e) Preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment.

15. During the second session, dedicated to national legal and policy frameworks, participants considered how national space laws and policies were developed in countries of the region. Special attention was paid to regulating national space activities and implementing provisions of the United Nations treaties on outer space. Aspects related to the relationship between international space law and national space legislation were also discussed. Participants considered ways of developing a national regulatory framework in various countries, taking into account the specific nature of their national space activities. The session comprised the following presentations:

- (a) Work of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space on the general exchange of information on national legislation relevant to the peaceful exploration and use of outer space;
- (b) National jurisdiction for regulating the space activities of governmental and non-governmental entities;
- (c) Liability, indemnification and insurance;
- (d) Register of Objects Launched into Outer Space maintained by the United Nations;
- (e) Impact of new developments in space activities on international space law;
- (f) Remote sensing;
- (g) Global navigation satellite systems.

The Workshop also heard presentations on examples of national regulatory and policy frameworks relating to the peaceful exploration and use of outer space by the following States: China, India, Japan, Republic of Korea, Thailand and United States. In addition, a presentation on the national space-related legislation of ESA member States was given, which included information on the draft code of conduct for outer space activities being developed by the Council of the European Union.

16. The third session focused on mechanisms for international and regional cooperation in the exploration and use of outer space. The following presentations were delivered:

- (a) APSCO;
- (b) Observation and proposal for coordinating space-related activities and institution-building in Asia and the Pacific;
- (c) Asia-Pacific Regional Space Agency Forum;
- (d) Space organization for the Association of Southeast Asian Nations (ASEAN).

17. The fourth session focused on specific considerations and needs for capacity-building and education in space law. Participants examined the experience of educators in promoting education and developing courses in space law, considered mechanisms for overcoming regional challenges and discussed the core elements to be included in curricula on space law. Presentations were made on: (a) current opportunities for education in space law in the region; and (b) programme on capacity-building in space law of the Office for Outer Space Affairs. The session

ended with a round-table discussion on ways and means of promoting education in space law.

## II. Recommendations, observations and conclusions

18. Workshop participants expressed their appreciation to the Government of Thailand, GISTDA, ESA, APSCO and the Office for Outer Space Affairs for organizing the Workshop.

19. It was noted that the fiftieth anniversary of the Committee on the Peaceful Uses of Outer Space and the fiftieth anniversary of human space flight would be celebrated in 2011, as the first meeting of the Committee on the Peaceful Uses of Outer Space had been convened on 27 November 1961. In setting out the future scope of its work at its first meeting, the Committee had facilitated discussion by the First Committee of the General Assembly on the text that would become Assembly resolutions 1721 A to E (XVI) of 20 December 1961. Those important resolutions had served as the origin of international space law. In its resolution 1721 (XVI) A, the Assembly had invited the Committee to study and report on the legal problems which might arise from the exploration and use of outer space. In its resolution 1721 (XVI) B, the Assembly had expressed its belief that the United Nations should provide a focal point for international cooperation in the peaceful exploration and use of outer space; had called upon States launching objects into orbit or beyond to furnish information promptly to the Committee, through the Secretary-General, for the registration of launchings; and had requested the Secretary-General to maintain a public registry of that information. Assembly resolution 1721 (XVI) B still provided the basis for the registration of space objects by States not parties to the Convention on Registration of Objects Launched into Outer Space.

20. The Workshop observed that, over the past 50 years, the Committee and its Legal Subcommittee had been instrumental in the creation of the international legal regime governing the activities of States in the exploration and use of outer space.

21. The Workshop also observed that constant development in space science and technology and their applications, such as Earth observation, communication and navigation, timing and positioning and new exploration efforts, in addition to increased commercial and private activities in the space sector, generated demands for regulative approaches to meet the needs of new actors and beneficiaries, among both space-faring nations and emerging space-faring nations.

22. The Workshop recognized that, in that sense, the Committee and its two Subcommittees demonstrated the will of its members to advance their role in international cooperation in the peaceful uses of outer space by making important and effective decisions in terms of protecting the Earth and space environment; enhancing the capacity of all States in promoting economic, social and cultural development, disaster management and environmental protection; and enhancing understanding of regulatory frameworks and mechanisms to that effect.

23. The Workshop noted other fields of regulative interest, such as protection of interests in space assets, commercial human space transportation and space traffic management.

24. The Workshop underscored the efforts of the Committee and its Legal Subcommittee to further advance the application of the legal regime of outer space, in particular through the adoption of General Assembly resolution 59/115 on application of the concept of the “launching State” and Assembly resolution 62/101 on recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects. The Workshop also recognized the efforts of the Committee and the Subcommittee to promote capacity-building in space law, for which the series of United Nations workshops on space law played an important role.

25. The Workshop recognized the conclusion, by the Committee and its Scientific and Technical Subcommittee, of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (A/62/20, annex) and the Safety Framework for Nuclear Power Source Applications in Outer Space (A/AC.105/934), which provided important technical frameworks at the international level.

26. The Workshop emphasized the need to continue promoting universal acceptance of, and compliance with, the United Nations treaties on outer space. In that regard, the Workshop recalled the document developed by the Legal Subcommittee at its forty-third session, in 2004, containing information on the benefits to, rights and obligations of parties to the United Nations treaties on outer space (A/AC.105/826, annex I, appendix I).

27. The Workshop agreed that, through the regular exchange of information and experiences in regulating national space activities, States would be able to draw mutual benefit from examining new developments and identifying common principles, norms and procedures.

28. The Workshop noted that States would be able to offer legal certainty and transparency to entities involved in space activities by developing and publishing national space laws and regulatory frameworks, as well as bilateral and multilateral agreements, including at the regional level, particularly in the context of the increasing commercialization and privatization of space activities. The Workshop therefore welcomed the work being undertaken by the Legal Subcommittee, through its Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, to finalize its report, building on findings from its work over the past several years.

29. The Workshop agreed that the United Nations treaties on outer space provided an established legal regime for the orderly use of outer space and contributed to the strengthening of the rule of law. By becoming parties to those treaties, States could better protect their legitimate rights and interests in the peaceful exploration and use of outer space.

30. The Workshop recognized the different approaches taken by States in dealing with various aspects of national space activities, namely by means of unified acts or a combination of national legal instruments, and noted that States had adapted their national legal frameworks according to their specific needs and practical considerations. The Workshop observed that some States had instituted national policy frameworks and that the establishment of national regulatory frameworks was being considered.

31. The Workshop noted that common ground for national legislation included the need to fulfil obligations under treaties to which a State had become a party, the need to achieve consistency and predictability in the conduct of space activities under the jurisdiction of the State, and the need to provide a practical regulatory system for private sector and commercial involvement. The need for improved national coordination and the integration of a wider range of national activities had also provided an incentive for regulatory frameworks at the national level.

32. Against that background, the Workshop observed that the following elements could serve as core categories for consideration by States when enacting national space legislation:

(a) *Scope of application*: this should reflect international obligations and commitments while paying due regard to national security and foreign policy interests, take into account the role of a “launching State” under the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, the Registration Convention and the Convention on International Liability for Damage Caused by Space Objects, and determine national jurisdiction over space activities carried out from the national territory and space activities carried out elsewhere by nationals, both natural and legal persons;

(b) *Procedures for authorizing and licensing national space activities, including those conducted by non-governmental entities*: such procedures should ensure that applicants fulfil appropriate professional, technological and financial criteria, address change of status, modification, suspension and revocation of licences, and establish conditions connected to registration, liability and safety, thus establishing a predictable and reliable authorization regime;

(c) *Procedures to ensure supervision and control of space activities carried out under national jurisdiction*: such procedures should include the role and competencies of supervising authorities and should establish requirements for the fulfilment of obligations under a licence, including administrative measures or a sanctions regime, as appropriate;

(d) *Procedures to ensure the registration of objects launched into outer space*: these should cover the establishment of a national registry, the obligation for operators to submit information to the competent national authority, and the submission of required data to the United Nations, including additional information on any change in the main characteristics of space objects, in particular those that have become non-functional;

(e) *Establishment of a national liability regime for space activities*: this should be in addition to general tort law and a specific liability regime (such as for environmental liability) and should include liability and indemnification procedures for seeking recourse from operators, insurance coverage and limitation of liability, as appropriate;

(f) *Provisions to ensure the safe conduct of space activities*: such provisions should include the avoidance of harmful interference with activities in the peaceful exploration and use of outer space, design and technological requirements, safety assessments, risk analysis and responses to emergency situations, and the protection of the space environment through, inter alia, avoidance of harmful contamination of

outer space and adverse changes to the Earth and space environment and implementation of space debris mitigation measures;

(g) *Provisions to deal with the transfer of ownership or control of space objects in orbit*: these should include requiring a permit for selling satellites, and procedures for the submission of information on the change in status of the operation of a space object.

33. The Workshop noted that different perspectives on public and private international law and space-related regulative activities in various intergovernmental bodies had led to increasing demand for capacity-building, education and training.

34. The Workshop acknowledged the contributions by APSCO, the Asia-Pacific Regional Space Agency Forum and other regional mechanisms for capacity-building in space law and space technology and recognized the important role that regional cooperation and coordination mechanisms could play in supporting efforts aimed at strengthening regulatory and policy frameworks, promoting education in space law and space-related legal disciplines, enhancing training opportunities for professionals in the public and private space sectors, and fostering educational programmes.

35. The Workshop encouraged closer cooperation and dialogue between universities and institutions with established space law programmes and those wishing to develop such programmes, for the benefit of students and professionals. The Workshop noted that such cooperation could help to overcome the hurdles of cost and limited access to materials.

36. The Workshop noted with appreciation the publication of the 2010 edition of the directory on education opportunities in space law by the Office for Outer Space Affairs and welcomed the development of a curriculum on space law that would be integrated into the existing educational framework of the regional centres for space science and technology education affiliated to the United Nations. The Workshop noted that, with the addition of a basic course on space law, the regional centres would be able to offer scholars with scientific and technical skills an introduction to the legal basis required for conducting space activities.

37. The Workshop encouraged the Office for Outer Space Affairs to continue to facilitate regional and interregional dialogue on space law.