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THE DEVELOPMENT OF INTERNATIONAL LAW ON REMOTE SENSING ACTIVITIES WITH THE EMPHASIS ON INTERNATIONAL COOPERATION

Masatoshi Fukunaga
Keio University, Japan
fuyong@sfc.keio.ac.jp

ABSTRACT

This paper addresses the development of international law on remote sensing activities and, to consider the desirable method and future for the benefit of mankind. Analyzing the 1986 UN Principles reveals that the character of the resolution was not confirmation of existing customary international law at the time, however it has been the basis for the development of international law on remote sensing activities. Furthermore, individual cases of international cooperation of remote sensing activities imply the importance of international cooperation and the emergence of customary international law, i.e., a state which conducts remote sensing activities has responsibility of involvement in international cooperation. With brief note of the desirable method and future for the benefit of mankind, the author repeatedly emphasizes the importance of international cooperation.

1. INTRODUCTION

This paper's major objective is to show the direction which the international law on remote sensing activities is heading into. Remote sensing, especially by satellites in this paper's context, is a human activity which has been contributing to various matters. In the beginning, its usefulness just as military reconnaissance and national technical means of verification received intensified attentions, however today it seems to be a consensus of international community that remote sensing activities are also beneficial to dealing with the challenges posed by the pollution of the environment, depletion of natural resources, loss of biodiversity and the effects of natural and anthropogenic disasters. [1] Remote sensing activities are therefore important for promoting the benefit of mankind, not just of space-faring nations. In that situation, international law on remote sensing activities is expected to settle conflicts among states and to prevent states from engaging in their remote sensing activities based only on their state interests. For instance, it is desirable for the benefit of mankind to limit complete shutdowns of circulation of remote sensing data based on a state's arbitrary decision.

In Chapter 2, this paper will firstly examine 'Principles Relating to Remote Sensing of the Earth from Outer Space' [2] adopted by United Nations General Assembly in 1986 (hereinafter the 1986 UN Principles). To simplify the discussion, the main issue is whether the resolution was confirmation of existing customary international law at the time or not. Following a clarification that the resolution was *not* confirmation, it will research the present state of international law on remote sensing activities in Chapter 3. The focus is on international cooperation because of its vital role in remote sensing activities in recent years and in prospected future. In Chapter 4, the paper will address the desirable method and future for the benefit of mankind. Finally in Chapter 5, it will conclude the discussion.

2. THE 1986 UN PRINCIPLES- CONFIRMATION OR NOT?

2.1 The Reason to Make a Study of Customary International Law at the Time

Although the 1986 UN Principles is not *per se* a binding source of international law, many space law researchers agree on its importance today. There are many papers researching into the effects and character of the 1986 UN Principles. [3] However, in the present author's view, it is not sufficient for an analysis of the development of international law on remote sensing activities that relying mainly on the discussions and outcomes of the 1986 UN Principles. It is due to the

tendency of commercialization and international cooperation in post Cold War. Focal points derived from the conflicts between sensing states and sensed states are now regarded as outdated, and "disagreement surrounding the 1986 UN Principles . . . become less dramatic . . . "[4]. Thus in this chapter the focus is on the contribution of 1986 UN Principles to the development of international law, not on the content itself. In other words, to consider when and how certain norms or rules become customary international law, it will look into the preparatory work of the 1986 UN Principles. If the preparatory work indicates that the resolution was confirmation of existing customary international law at the time, the emphasis of research should be on the time before 1986. On the other hand, if not, emphasis should be on the time after the adoption.

2.2 The 1986 UN Principles was *Not* Confirmation- from travaux préparatories

The United Nations Committee on the Peaceful Uses of Outer Space (hereinafter COPUOS) discussed the subject for 15 years from 1971 onwards. [5] There is no room to regard controversial issues as existing customary international law at the time. "[C]ustomary rules are the product of general consensus, not of individual State consent, express or implied"[6], so that if the issue was controversial, there was no basis of consensus, and no basis of customary law.

There were roughly three controversial issues: access to data, dissemination to third parties, and permissibility.[7] The 'access to data' issue was discussed until the very end of the adoption.[8] Regarding the 'dissemination to third parties' issue, it should not be overlooked that in 1978 a number of socialist countries signed a Convention on the Transfer and Use of Data of the Remote Sensing of the Earth from Outer Space[9]. Article IV of the treaty stipulates that the consent of the sensed State is required for the dissemination of any data where the specific resolution is better than 50 meters, whilst Article V prohibits the dissemination of information derived from remote sensing relating to the natural resources or the economic potential of the sensed State. [10] Concerning the 'permissibility' issue, the 'prior consent' before remote activities was strongly claimed especially by Latin American countries,[11] though the claim ceased at the early stage of the discussion in COPUOS. Neither the controversial issues mentioned above nor other obscure issues which the 1986 UN Principles omitted to stipulate[12] are apparently existing customary law at the time.

In contrast, the legality of remote sensing activities was supported by the delegates of countries from the early stage of the discussions. Citing Article I of the Outer Space Treaty[13], many scholars did not doubt the legality of remote sensing activities. It therefore seemed possible that there was a consensus, and customary international law had already existed. However, it might be precise to consider that the 1986 UN Principles did confirm the 'free for exploration and use' principle *per se* which stipulated by Outer Space Treaty in 1967, not the customary international law which may be derived from Outer Space Treaty.

In conclusion, the 1986 UN Principles was not confirmation of existing customary international law on remote sensing activities at the time. State practices after the 1986 UN Principles, which typically appears in the negotiations in international cooperation and in national laws and policies, is crucial for a research into the development of international law on remote sensing activities.

3. THE PRESENT STATE OF INTERNATIONAL LAW ON REMOTE SENSING ACTIVITIES

3.1 The Importance of International Cooperation

As mentioned, the 1986 UN Principles was neither binding nor confirmation of existing customary international law at the time. It is certain however that norms or rules, which occasionally cited as customary international law, really exist today.[14] To analyze such norms or rules, in this Chapter 4, state practices in international cooperation were introduced. The reason to emphasize international cooperation is that 1) the resolutions or negotiations in international cooperation are valuable as substantial sources of law reflecting state practices, and 2) from the beginning, especially from the end of Cold War, remote sensing activities have included international cooperation. It is worth to mention that actors or negotiators in international cooperation are not just governments

but also non-governmental entities. According to Article VI of Outer Space Treaty, nevertheless, the activities of those entities "shall require authorization and continuing supervision by the appropriate State Party to the Treaty"[15].

3.2 The Individual Cases of International Cooperation

In civil use, there are many instances of international cooperation of remote sensing activities. Following instances are not exhaustive, but it seems possible to extract some particles of the present state of international law on remote sensing activities.

A. The Landsat Program

The Landsat Program is United States' national remote sensing activities, the origin of which is Cold War. The program however often needs the participation of international actors, like foreign ground stations, for example, to meet national foreign policy and fiscal objectives.[16] Although its minute plan and policy varied as US law and policy changed, it has coherently held nondiscriminatory access principle.[17] This practice involving international cooperation character greatly affected the discussion of the 1986 UN Principles, and even today its importance as a practice is not degraded.

B. World Meteorological Organization Data Exchange Policy

Because of its missions, it is essential for WMO to involve in remote sensing activities. In 1995 World Meteorological Congress, the supreme body of the organization, adopted Resolution 40 (Cg-XII)[18]. It provides that "Members shall provide on a free and unrestricted basis essential data and products which are necessary for the provision of services in support of the protection of life and property and well-being of all nations . . . "[19]. This WMO 'free and unrestricted' principle has been deeply affecting other international regimes, such as United Nations Framework Convention on Climate Change.

C. Global Earth Observation System of Systems 10-Year Implementation Plan Data Sharing Principles

Group on Earth Observations adopted 'GEOSS 10-Year Implementation Plan'[20] on February 2005. It stipulated data sharing principles as follows;

"The societal benefits of Earth observations cannot be achieved without data sharing. The following are GEOSS data sharing principles:

- There will be full and open exchange of data, metadata, and products shared within GEOSS, recognizing relevant international instruments and national policies and legislation.
- All shared data, metadata, and products will be made available with minimum time delay and at minimum cost.
- All shared data, metadata, and products free of charge or no more than cost of reproduction will be encouraged for research and education.

Use of data or products does not necessarily imply agreement with or endorsement of the purpose behind the gathering of such data."[21]

Similar to WMO principles, they are 'full and open exchange, with minimum time delay and at minimum cost' principles. According to these principles, GEO is now drafting implementation guidelines.

D. Committee on Earth Observation Satellites Data Exchange Principles

Two resolutions were adopted in CEOS Plenary.[22] In the 1991 resolution, Article 5 provides nondiscriminatory access to satellite data by non-CEOS Members,[23] and Article 6 provides no exclusive period of data use.[24] In the 1994 resolution, its preface says that the data provision should take into account the benefits of expanded data use, as well as investments and cost.[25] The 1994 preface also mentions the general principle of nondiscriminatory access to data, and the implementation to the fullest extent possible within available resources.[26]

Member states impose those principles on their own civil remote sensing activities, despite the fact that all of them have continuing activities of spaceborne earth observation.

E. International Charter "Space and Major Disasters"

Following UNISPACE III, International Charter "Space and Major Disasters" was signed in 2000. Article 3.1 of the Charter says, "The parties shall develop their cooperation on a voluntary basis, no funds being exchanged between them."[27] Article IV says, "the parties shall use their best endeavours in the conduct of this cooperation . . ."[28] On a voluntary basis, the Charter obliges space agencies to provide their

data, to the extent of their best endeavours. Not only space agencies but also private companies are members: Digital Globe, GeoEye and Spot Image.[29]

F. EUMETSAT Principles on Data Policy

The EUMETSAT Council adopted a resolution involving in EUMETSAT Principles on Data Policy in 1998.[30] Article IV of the policy stipulates that 'A set of data, products and services to be determined by Council will be available on a free and unrestricted basis as "Essential" data and products in accordance with WMO Resolution 40 (cg-XII).'[31] EUMETSAT, a regional cooperation including remote sensing activities, also voluntarily handle their data on a 'free and unrestricted basis'.

3.3 The Present State of International Law

From the end of Cold War, "'sensed' states are progressively accessing remote sensing technologies and, consequently, becoming 'sensing' states as well."[32] As seen above, it is partially due to the increase of international cooperation of remote sensing activities. In addition, it can be deduced from the instances of international cooperation that the focus has shifted from on-orbit hardware to data.[33] In civil use, many data exchange/sharing rules and principles have been adopted, and surprisingly most of these are abiding the principles of the 1986 UN Principles. As seen in Chapter 3, the 1986 UN Principles was not confirmation of existing customary international law at the time, however it has been the basis for the development of international law on remote sensing activities.

In the present author's view, states enjoy their right to conduct remote sensing activities freely but it does not mean conducting states are not obligated anything at all. Although it is on a voluntary basis, certain responsibility surely exists, to involve in international cooperation in civil use. Principle V, VI, VII, VIII, X, XI of the 1986 UN Principles, which stipulate international cooperation, are seemingly declarative of customary international law today.[34]

4. THE DESIRABLE METHOD AND FUTURE OF REMOTE SENSING INTERNATIONAL LAW

4.1 The Desirable Method to Promote the Development

Because political arena does not appear to be favorable for drawing up binding rules,[35] domestic legislation and non-binding international agreement are the practical methods to promote the development of international law on remote sensing activities. It is desirable to attach importance to the latter than the former, because domestic legislation does not always reflect the benefit of mankind but directly reflects national interest of each state. Therefore, making non-binding international agreement in international cooperation is the most desirable method for the benefit of mankind.

4.2 Toward the Desirable Future

Toward the desirable future, it is imperative to facilitate utilizations of remote sensing in two fields: international verification[36] and international litigation[37]. Because these fields occasionally step into military aspects of remote sensing activities, confidence building and capacity building through international cooperation in civil use are important to achieve the goals. For example, the methods to construct a reliable database, the data of which can be examined later by experts, are able to be acquired by the experiences of international cooperation in civil use.

5. CONCLUSION

In civil use, the influence of international cooperation is profound in the development of international law on remote sensing activities. The rules and principles which international cooperation yielded were not legally binding, nevertheless it seemed that some legal consensus were derivation of them. In other words, international cooperation has created customary international law. At least, in the present author's view, a state which conducts remote sensing activities has responsibility of involvement in international cooperation. Since 1986 UN Principle, the international cooperation has certainly been a driving force of the development of international law on remote sensing activities. Consequently such development is supposed to be desirable for the benefit of mankind.

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[9] U.N. Doc. A/33/162 (June 29, 1978).

[10] CHENG, *supra* note 3, at 595.

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[12] *E.g.*, intellectual proprietary and privacy issues.

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