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Privacy issues related to Outer Space Law

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The background of the development of privacy issues with respect to Outer Space laws came to the forefront with better military capabilities and accuracy of the high-resolution satellite images. What started during the Cold War, was the reconnaissance of battleships, missiles, soldiers as well as aircraft, that led to the development of VHR data. However, in recent years, the data from satellites are commercially available leading to privacy concerns. The evolution of the Registration Convention of 1975 to the current Outer Space Treaty involves various aspects of international laws and space treaties. This paper deals with the intricacies of privacy laws with respect to the laws governing outer space and the ambit of international laws. This research paper aims to bring forth the diverse treaties and propositions that have been made with respect to the outer space treaties, and the associated provisions that they contain with respect to the privacy issues that arise from them.

Keywords: *privacy, space, law.*

INTRODUCTION

With the commencement of the era of space laws in the late 1950s, it became increasingly clear to certain observers that life on this planet would eventually be viewed from a long distance without the residents' awareness - Big Brother in its purest form. Simultaneously, as the two superpowers and their allies pursued space programs primarily for military, strategic and

political purposes, while scientific purposes took a secondary position, the concerns with respect to the Cold War centred mostly on the concept of espionage. Clearly, satellites were excellent tools to find tanks of the nemesis, battleships, missiles, soldiers as well as aircraft. Moreover, Satellites may be used to check whether there is compliance with the international treaties and to seek to halt the arms race, along with its probable escalation into actual warfare. Satellite data related to this was kept under cover by the nations who were participating in its development, meaning that information on specific people or corporations as shown by the data was unreachable to anybody other than a tiny number of security experts. At least officially, the extent to which satellite data might deliver relevant information remained a tightly held secret. Consequently, rumours circulated that military remote sensing capabilities would allow licence plate scanning from space. Due to the end of the Cold War and the subsequent increase in the interest and engagement of the private sector in outer space, this scenario began to radically change when the data from the satellites with exceptionally high resolutions became available to the public. Recently, making very High Resolution (or, VHR) data accessible to commercial markets has dropped to less than 0.5 m, and continues further to "*evolve lower*."[1]With these measurements, it is crystal clear that the data from satellites may be interfering with innumerable privacy concerns. This is now even true, as the phrase is not restricted to human beings but can also refer to legal people like businesses.[2] In this sense, "*privacy*" refers to personal freedom, (physical and psychological) integrity, and pertinent bodily and social identity.[3] Theoretically, any interference into the personal sphere, whether physical/actual or virtual/psychological, will thus collide with this idea. This article seeks to evaluate what international space law is already stipulating the form of relevant rights, obligations, and norms, along with the legal notions applicable to privacy issues. Eventually, such problems will manifest themselves in a highly realistic situation.

DETAILS ABOUT THE OUTER SPACE TREATY

[1] C.Q. Christal, 'International Liability for Damage Caused by Space Objects' (1980) 74 American Journal of International Law, 351.
[2] R. Macrory & R. Purdy, 'The use of satellite images as evidence in environmental actions in Great Britain' (2001) 51 Droit et ville 73
[3] R.M.M. Wallace, *International Law* (7th edn, Sweet & Maxwell 2013)

The legal issues related to outer space and the operations carried out therein are reflected in the political emphasis which is placed on the activities of the state and the interests of the state, along with the scientific aspects of the same. The Outer Space Treaty of 1967[4], which was the premier international treaty on space activities and the rules applicable thereto, emphasised state behaviour in this regard, despite that as a "*Treaty on Principles*," it failed to give specific guidance regarding whether or not states permitted to do a certain military activity with regard to space activities. Later, the ABM Treaty[5]alluded to satellites as a kind of "*national technical methods of verification*"[6].This was done in order to determine whether parties will follow their commitments on the deployment of an anti-satellite missile, ergo give their contribution to the peaceful stalemate of the Cold War.

Furthermore, Outer Space Treaty establishes the legal framework for the diverse space operations in outer space, along with freedom of outer space activities and the incapacity of individual governments in order to employ territorial jurisdiction in outer space as the foundation. Such freedom can be curtailed, firstly, only by the states in their entirety, primarily via the international treaties, or through the formation of customary international law responsibilities by accumulating state practices as well as *opinion Juris*. Such restrictions are not limited to international space treaties or by *jus non-scriptum.* Additionally, as per Article III of the Outer Space Treaty "*international law, including the United Nations Charter, in the interest of maintaining international peace and security and developing international cooperation and understanding*" also extends to outer space.[7] The aforementioned freedom includes, in principle, the right to utilize outer space for remote sensing Earth via satellites, or a portion thereof. This freedom is supported by the freedom under general international law "*to seek, receive, and transmit information and ideas*"[8], especially under the right to perform remote sensing in space, through operations acknowledged by the 1986 United Nations resolution on remote

[4] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, 1967
[5] Agreement between the United States of America and the Union of Socialist Soviet Republics on the Limitation of Anti-Ballistic Missile Systems, Moscow, 1972
[6] *Ibid*
[7] *Ibid*
[8] Universal Declaration of Human Rights, 1948, art.19

sensing.[9]Alternatively, the quasi-territorial sovereignty in which the states are permitted to have jurisdiction over their own national airspace[10]permits them to bar and forcibly prohibit remote sensing from their airspace,[11] the liberty to conduct remote sensing operations from outer space raises questions of where outer space commences from a vertical perspective.

Initial convergence of the agreement on the borders between the airspace and outer space in the 100 km altitude range may be detected, although it has not reached the level of customary international law.[12]In contemporary times, satellites are now at issue over their prospective use for remote sensing will be considered to be orbiting in outer space so as to enjoy the aforementioned liberties. The Outer Space Treaty in no way provides a great deal of clear information on any further restrictions that may be put on these liberties, such as to address privacy concerns. The paragraph in Article III that relates to general international law has been noted, despite the fact that it does not substantially modify the framework.

Due to the fact that the freedom to seek, receive, and send information is a fundamental tenet of the system under general international law, this is the case.[13] Therefore, any constraints on fundamental rights should be imposed at the national level and, as per the definitions, they apply to only the national territory and those actors possessing the nationality of the applicable states.[14] Article III of the Outer Space Treaty cites just one text of general international law, the United Nations Charter[15], as limiting state sovereignty in the international arena. Furthermore, it imposes a prohibition on aggression, coupled with the usage of force against other nations, along with other dangers to international security and peace[16], severe human rights violations,[17] and "*obligations of endeavour*" pertaining to international cooperation, development, etc.

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[9] Principles Relating to Remote Sensing of the Earth from Outer Space, 1986
[10] Convention on International Civil Aviation, 1944, art.1
[11] *Ibid*
[12] K.H. Böckstiegel, *'Project 2001' – Legal Framework for the Commercial Use of Outer Space* (Carl Heymanns 2002)
[13] R.M.M. Wallace (n 4)
[14] *Ibid*
[15] Charter of the United Nations, 1945
[16] Charter of the United Nations, 1945, art.1(1), art.2(2), and art.2(4)
[17] Charter of the United Nations, 1945, art.1(3), art.13, and art.73

OTHER RELEVANT TREATIES

As a framework, the Outer Space Treaty consists of all human endeavours in this specific domain. In subsequent accords, further specifics are incorporated and explicated. The UN Committee on the Peaceful Uses of Outer Space (or, UNCOPUOS) approves these accords, which are then approved by various states. Additionally, it becomes vital to analyse the subsequent treaties promptly.

Firstly, the following accords are the Rescue Agreement of 1968[18], which extends to Articles V as well as VIII of the Outer Space Treaty. These articles are concerned with the duty of nations with regard to the spacecraft as well as astronauts who accidentally reach their area of rule or area of influence. The Rescue Agreement clarifies these commitments much further. However, neither obvious nor indirect parallels to the modern concerns relating to"*privacy*" are present. As a component of rights that should be considered as "*envoys of mankind*" and need to be returned as promptly and with all possible precautions, astronauts' right to privacy may at most be considered implied.[19] The second of these international agreements, which is the Liability Convention of 1972,[20] specified the responsibilities to which states are subjected while conducting space operations. These requirements are in addition to Article VII of the Outer Space Treaty's basic articulation of this concept. It is important to consider the potential applicability of the Liability Convention in the present context of the term "*injury*" within its wording since the happening of such kind of damage would lead to various duties to compensate for such damage.

Such damages are defined under the Liability Convention as the "*loss of life, personal injury, or other impairment of health; or loss or damage to property of States or of natural or juridical persons, or property of international intergovernmental organisations.*"[21]Particularly, reference to the term "*property*" coupled with general enforcement of the Liability Convention, which stipulates

[18] Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, 1968
[19] G. Lafferranderie & S. Marchisio, *The Astronauts and Rescue Agreement – Lessons Learned* (European Centre for Space Law 2011)
[20] Convention on International Liability for Damage Caused by Space Objects, 1972
[21] *Ibid*

about the damage "*caused by a space object*" and frequently also the damage "*caused to a space object*"[22], has led the majority of scholars to come to the conclusion that the damage should be compensated for is limited to physical and direct damage only. Damages resulting from radio interference, erroneous satellite navigation signals, and other ways of indirect and non-physical damages have historically not been recognised as grounds for liability as per the Convention.[23] As a result, the prevailing opinion is that the "*damage*" which was caused by the content of the satellite data, such as an invasion of privacy, must not be deemed to be remunerative as per the Liability Convention.[24]Such assumptions have never been challenged in court, it should be stressed. As per the Liability Convention, a Claims Commission will be constituted if a relevant dispute cannot be addressed diplomatically.[25] Only once have documents relevant to a dispute of this nature addressed the Liability Convention, however, the dispute was eventually settled without its use.

The Registration Convention of 1975, the second international space treaty, centred on Article VIII of the Outer Space Treaty and created a registration mechanism for space objects. Aside from the Convention's overall emphasis on improvising the identification of specific space objects, including in the event that they breach international commitments, just one clause emerges to be somewhat relevant to the subject at issue. In the scope of duties to register the space objects which had been launched or planned in order to be launched into space, the state which launches the objects, is expected to record the "*general function of the space object*" in both the national and international registers.[26]

A reference has to be to the high-resolution "*remote sensing*" or the remote sensing for the stated aim as "*general function*" may if not more, alert privacy activists to the presence of another privacy-invading satellite, despite the fact that the responsibility is as ambiguous as it gets. The relatively vague absence of standards for the specificity and promptness of registration,

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[22] *Ibid*
[23] B.D.K. Henaku, *The Law on Global Air Navigation by Satellite: An Analysis of Legal Aspects of the ICAO CNS/ATM System* (AST, 1998)
[24] *Ibid*
[25] *Ibid*
[26] *Ibid*

which, however, appears to provide such broad gaps ("*as soon as possible*," "*to the greatest extent possible*"[27]) that this section is routinely disregarded and has very less relevance in practicality.[28] The Moon Agreement of 1979 is the final international treaty to clarify the conditions stipulated by the Outer Space Treaty. It elaborates on the moon as well as the celestial body-related topics with the aim of prospective resource exploitation. Ergo, it contains no phrases pertinent to the issue at hand, unless one takes the passages requiring unrestricted entry to all portions of the moon along with all facilities, and installations of the others[29] as establishing a lack of privacy on the moon as a matter of principle. Additionally, the general failure of spacefaring nations to ratify the Moon Agreement weakens the value of any subsequent inquiry.

PRINCIPLES OF THE UNITED NATIONS ON THE REMOTE SENSING

As acknowledged by a consensus in 1986, UN Principles on Remote Sensing are the last space law text with possible wide applicability to the privacy problem. Despite the fact that the Principles as a Declaration of the United Nations General Assembly lack legal backing, it is generally recognised as possessing the customary legal weight.[30] It is noteworthy that Principles give so little guidance on the matter of the privacy of persons and organisations. Initial implementation of the Principles is limited to remote sensing "*for the purpose of increasing natural resources management, land use, and environmental preservation*."[31]It is not a typical arena in which privacy issues are anticipated. State interests are the major emphasis of the Principles.

This includes governments wanting to conduct global remote sensing operations, states desiring access to all the data that is generated inside their boundaries, and right stability between these interests.[32] Insofar as this distinction could be interpreted as a debate about the "*privacy of states*," in case the second group of states desired to take over the authority of the creation, especially the issuance of satellite data pertaining to their own territory, any

[27] Convention on Registration of Objects Launched into Outer Space, 1975
[28] Y. Lee, 'Registration of space objects: ESA member states' practice' (2006) 22 Space Policy 44
[29] Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, 1979
[30]Convention on International Liability for Damage Caused by Space Objects, 1972
[31] *Ibid*
[32] C.Q. Christal (n 1)

conclusions regarding the appropriate steadiness of this, in accordance with the Resolution, could be pertinent to the present context. As for satellite remote sensing, the UNGA Resolution 41/65 ingeminates some of the treaty's basic principles. For instance, it stipulates that remote sensing operations must be done "*for the benefit and in the interests of all countries*,"[33] "*in accordance with international law*",[34] in a manner that promotes cooperation amongst states well.[35] Second, remote sensing "*must be performed on the basis of full and permanent sovereignty of all States and peoples over their own wealth and natural resources*" and "*shall not be based on any form of coercion or coercive.*"[36]This last sentence leads to principled preservation of the "*privacy of states*," but limits such safeguards to natural resources. This paragraph was introduced due to concerns at that particular time, particularly among several developing states, that information acquired from satellite remote sensing on the location of significant mineral resources inside their borders would be essentially available to only one developed nation(s). It was felt this would provide wealthier nations with an edge in international discussions over the exploitation of such assets. In response, these regimes tried to construct a remote sensing regime that would provide them jurisdiction over these activities. As per this system, sensing a state by another would be allowed only with the express consent of those states whose territory is being sensed. Or, in the absence of the adoption of such "*prior consent*" necessity, data would be accessible only to the sensation, unless such a state-approved broader distribution.[37]

CONCLUSION

The pertinent international space laws—primarily the Outer Space Treaty, along with other associated treaties which had been created via COPUOS, as well as the UNGA Resolution 41/65, which consists of the "Principles on Remote Sensing"—do not presently impose restrictions on distribution and generation of the satellite data, which is inclusive of the VHR satellite data, that address the potential privacy issues in relation to the companies or the

[33] H.A. Wassenbergh, 'Principles of Outer Space Law in Hindsight' (Springer 1991)
[34] *Ibid*
[35] *Ibid*
[36] Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, 1979
[37] Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, 1979

individuals. In part because of this, data standards envisaged by major operators do not adequately address privacy issues to function as a model for an effective framework. Therefore, all probabilities for such individuals to protect their right to privacy exist solely at the national level, which is limited to the territorial and personal authority of the state(s) involved.[38] No global system has yet come up under which the privacy safeguards provided to a person by a state's legal system are generally recognised. This has taken place, for instance, in international treaties that recognise and apply copyright and/or patent protection that is given by one state to other. Till then, this individual may only be able to protect their privacy in their immediate vicinity, inside his or her state of residence and/or citizenship. Since satellite data are regularly developed and transported outside of this framework, this is problematic. Consequently, there is a disparity between the cosmic production and the principled universal availability of the VHR data, while, localised privacy issues as well as the national methods for protecting them.

[38] *Ibid*