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우주조약 체결 40년 : 우주의 군사적 이용 규율 문제

Forty years of the Outer Space Treaty : the problem inherent in governing the weaponization of the outer space

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Ⅰ. Introduction

Since the beginning of the space era, the territorial jurisdiction of national law has not been defined, the rules of the space law not yet providing a clear and concrete definition of what is the outer space. The freedom of the space flight is deemed established rule mainly as a customary rule, while the absence of the protest over such flight continues in the political context. After around fifty years of the first satellite flight, however, the first and very serious political move was witnessed. It was around the prominent issue regarding whether or not to give the freedom of space flight to the launcher tested by the Democratic Peoples' Republic of Korea("DPRK") in October, 1998.

It is presumed that the DPRK conceded to the pressure from the concerned States such as the USA and the Republic of Korea("ROK"), and that it accepted the moratorium of the test. However, the DPRK did not change its position that the purpose of the launching consisted in placing the satellite into orbit. It is to be noted that the moratorium of the test does not amount to delimiting or defining any legal concerns such as the definition of the space flight, the status of the rule regarding the space flight, and the scope of the sovereignty in the outer space.

In late 2000, the United Nations General Assembly voted on a resolution titled "Prevention of an Arms Race in Outer Space." The measure passed with 163 Yeas, zero Nays, and three abstentions. The United States abstained along with its allies Israel and the Federated States of Micronesia. In January 2001, a commission assessing United Sates national security in space headed by then Defense Secretary Donald Rumsfeld reported that the United States should "ensure that the President will have the option to deploy weapons in space."

Therefore, a question arises as to whether the sovereign rights in the outer space prevails upon the freedom of space exploration, and that, furthermore, such basic rights enshrined in modern international law supersede the set of rules called "international space law".

In order to answer those questions, this paper proceeds in the following manner. A theoretical framework and rules of the freedom of space exploration

and flight are presented. And, then, the factual elements of this case are described so that the applicability and validity of the rules may be explored. Finally, the paper shows what the legal implication of this case is.

II. Definition issue regarding the space flight

There is no codified compilation of international space law.[1] There are currently two relevant international treaties: The Outer Space Treaty and the Moon Treaty, both of which establish that outer space is res communis: common property owned by the people of Earth. The former agreement, signed in 1967 as the result of efforts of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), establishes that space is "the province of all mankind" and "free for exploration and use by all states without discrimination of any kind, on a basis of equality" and also that there should be "free access to all areas of celestial bodies", clearly precluding the exclusivity of possession that is the foundation of ownership.[2]

The language of the Outer Space Treaty and the treaties that followed borrowed heavily from other treaties already in existence. Much of the substantive language was adapted from terrestrial treaties that faced similar obstacles to those presented by space. [FN76] The international community drew on their experiences regulating other international commons, international waters, and terrestrial treaties that had acquired space provisions. [FN77]

Many of the goals of space law are mirrored in the Antarctic Treaty System, a series of treaties that holistically protect Antarctica and suspend sovereign claims over the continent. But also, Space law also borrowed from various treaties governing the high seas, which have been treated as an international

1) Adam G. Quinn, "THE NEW AGE OF SPACE LAW: THE OUTER SPACE TREATY AND THE WEAPONIZATION OF SPACE", Minnesota Journal of International Law, Summer 2008

2) David Collins "EFFICIENT ALLOCATION OF REAL PROPERTY RIGHTS ON THE PLANET MARS", Boston University Journal of Science and Technology Law, Summer 2008

commons, open to all nations for travel and trade. However, an analysis of the Outer Space Treaty reveals that it is too weak to adequately govern space and therefore needs to be replaced.

1. Definition problem in applying the legal reasoning

Because the drafters of the Outer Space Treaty created ambiguities within the text that have been interpreted in various ways by various actors, there is no consensus on what the Outer Space Treaty mandates.[3)]

The first reason is the the Article 1 of the OST provides a typical instance in which syllogistic analysis exposes a flaw in a legal rule. In the context of legal reasoning, the logic syllogism consists of a major premise, a minor premise, and a conclusion. It is a major premise usually that states a general rule. This is generally a statement of law. It is a minor premise that makes a factual assertion about a particular person or thing or a group of persons or things. In legal arguments, this is usually a statement of fact. It is a conclusion which connects the particular statement in the minor premise with the general one in the major premise, and provides us with an explanation about how the general rule applies to the facts in question. In legal reasoning, this is a process called applying the law to the facts.

The Article I of the OST is the major premise in regulating space activitie s.[4)] But there are some outstanding issues, about which controversial debate has been serious enough to lead us to deny that this Article may serve as a major premise in the logic syllogism.

First one is with respect to a question about where is the outer space. Unless the answer is not given, it is very unlikely that second paragraph of the article

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3) Quinn, 전게논문

4) "The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind."
"Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies."

1 of the OST functions as a major premise. Second one is regarding the definition of the exploration and use of outer space. Without the definition of the outer space, the concept of "exploration and use of outer space" seems as well meaningless in its application. In this context, some questions cannot be answered in accordance with the OST : if they occurs in the outer space, may any human activities be defined as exploration and use of outer space? For this question, it is impossible to give an answer without defining what and where is the outer space. A logic corollary of this definition problem lies in questioning when, where and how the State parties to the treaty will be entitled to the right to the freedom stated in the second paragraph in the Article 1.

2. The flight of the DPRK launcher

Real political moves around the North Korean missile/launcher test case has been enough to provide an evidence about legal confusion resulting from such logical flaw embedded in the approach taken in the OST. The representative of the Democratic People's Republic of Korea, speaking in exercise of the right to reply, said that the satellite launch was a matter of sovereignty, with which no country had the right to interfere. "Who could dare say that his country had no right to launch a satellite?" he asked. Furthermore, he claimed that since Japan had several times launched satellites without notifying his country in advance, the Democratic People's Republic was not obliged to make such a notificatio n.[5] Against this claim that the launching of satellite is not supposed to invoke "the right to interfere" by other States, the japanese government claimed that the launch was a missile launch.[6]

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5) Press Release, UN Document, GA/DIS/3109, Oct.13, 1998

6) Press Conference by spokeswoman of prime minister of Japan, Sep.24, 1998 ; The representative of Japan, speaking in exercise of the right of reply, said he wished to draw attention to the fact that the Democratic People's Republic of Korea fired a missile without prior notification through one of the most densely traveled air spaces used for civil aviation between North America and the Far East, falling in water heavily used for maritime traffic and fishing activities. That missile constituted a security threat to the entire region, specifically for Japan. In the past, when Japan

Besides the definition problem, the purpose and the technology used for the launching was also one of the political issues. The representative of Republic of Korea expressed his concern regarding the launcher capability without qualifying definitely the legality problem stemming from missile launch. He said that missile delivery systems posed as serious a threat to peace and security as the weapons themselves. He employed a word "rocket", in stating that "North Korea's launching of a multiple-stage rocket last August had renewed international concern over the dangers of missile proliferation in north -east Asia, and his Government called on the international community to prevail on North Korea to stop the development, testing, deployment and export of those missiles". From such statement, it may be concluded that the ROK's real concern does not lie in questioning whether to define the flight of the launcher as space flight or not, but in political consequences resulting from that launch itself. The real concern was illustrated more clearly in the media interview of US Secretary of State Madeleine Albright who said that "We stressed that another long range missile launch, whether declared to be a missile test or an attempt to place a satellite in orbit, would be highly destabilizing and would have very serious consequences for our effort to build better relations".[7]

III. North Korean Launcher Test Case

1. Political background : nuclear crisis

The test activity issue is not to be separated from the nuclear weapons and

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launched satellites, it had notified all of its neighbours, in accordance with the relevant conventions, in the event of a launch failure. His country could not, therefore, accept the criticism by the representative of the People's Republic that it had not given notice of its satellite launchings. Press Release, UN Document, GA/DIS/3109, Oct.13, 1998

7) Source: Voice of America, http://www.fas.org/news/dprk/1999/990727-dprk.htm

energy issue of the DPRK. Nuclear weapon issues around the Korean peninsular have been raised since early 1990s. It was the Geneva Framework Agreement between the DPRK and the USA signed at 1994 after long negotiation that provided the legal basis of the commitment of DPRK to giving up nuclear program. In 1998, the DPRK conducted the test of the launcher named Daepo-dong 1. Throughout vivid political debates, the DPRK claimed that the decision to carry out the launcher test was inevitable choice for them, taking into account the US attitude toward the undertakings of the Geneva Agreement. Since then, the launcher test issue has been included in the agenda of the nuclear crisis.

2. The testing of the launcher : legal factors

The 1998 launch by the Democratic People's Republic of Korea (North Korea) of a long-range rocket highlighted the access to space issue. On August 31, 1998, North Korea launched a rocket from its Hawdaegun Missile Test Facility that flew "over" Japan. North Korea gave no advance notice or warnings of the launch. There is some disagreement over whether this was a two-stage or three-stage rocket. North Korea asserted that the launch successfully orbited a satellite, a claim supported by Russia. The first stage landed in the sea 157 miles (253 kilometers) downrange. Apparently, the second stage (or possibly the heat shield) flew "over" Japan and landed in the Pacific Ocean 1023 miles (1646 kilometers downrange from its launch point and approximately 348 miles (560 kilometers) from Japan. This area is near international airway A590 where at the time 180 aircraft flew every day.

Any material evidences, however, have not yet been available so as to result in giving rise to the right to the space flight. Spokesman of Department of State of the USA said, "the evidence is that there was nothing released that we can see or saw, and there is nothing that is now orbiting that we can see or saw."[8)]

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8) The purpose of the launching remains unclear as a matter of fact. Brief by spokesman of Dept.of State of the USA supports such aspect. U.S. Department of State Daily Press Briefing #106, 98-09-

The DPRK has claimed his legitimate right to do launcher test specifically for military purpose. According to Pyongyang, the "lesson" of Kosovo is, if you want to avoid being bombed by America, you had better develop the ability to strike back.[9)]

The launcher test has posed a rare opportunity regarding the launch from legal point of view. To date, as far as is known, space objects have not had to traverse the airspace of foreign states en route to outer space. Currently, objects are launched vertically, either from launch sites in states with large territories or from launch sites on or near the high seas, substantially decreasing the possibility that a foreign State's national airspace will be crossed.[10)] In this regard this case of launcher test has revealed a problem inherent in the OST.

3. Moratorium of launcher test

In late-May 1999, US North Korea Policy Coordinator William J Perry visited Pyongyang and made a proposal to the DPRK, the details of which remain undisclosed. After long negotiation done between the DPRK and the USA, the DPRK announced the suspension of the launcher test. DPRK had offered to halt all missile exports, including missile components, technical

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9) Furthermore, North Korea's official KCNA carried this (9/2): "The spokesman for the Korean Asia-Pacific Peace Committee issued a statement today accusing Japan of making a fuss these days about a long-distance missile launching test that Japan says was carried out by [North Korea.] The spokesman says: High-ranking officials and other politicians of Japan are making provocative remarks against [North Korea] over a missile launching test that they say was carried out by [North Korea]. They describe the test as something 'regrettable' and 'dangerous,' and claim that the test made it difficult to improve relations with [North Korea]....., in view of the fact that Japan is zealously developing long-distance vehicles and other up-to-date weapons and paving the way for overseas aggression, having worked out 'Guidelines for Japan-U.S. Defense Cooperation.' Many countries around Japan possess or have deployed missiles. Japanese politicians, however, hurl mud only at [North Korea].... We bitterly denounce Japan for making a fuss over a matter that belongs to our sovereignty while being unaware of its background."

10) Dean N. Reinhardt, "THE VERTICAL LIMIT OF STATE SOVEREIGNTY", Journal of Air Law and Commerce, Winter 2007

advice and brokering services and to end the further development and testing of its own missiles with a range over 300 miles. In exchange, it asked for $1 billion worth of food aid and other aid in kind(to replace earnings from sales of missiles, etc), plus several satellite launches to be conducted by the USA. The USA had agreed to provide several hundred million dollars worth of food aid and other aid, and to conduct the satellite launches.

But, after the US presidential election, February 2001, the DPRK foreign ministry warned officially that it may scrap a promise to stop missile test launches.[11] Yonhap news in ROK said the warning could also target a 1994 agreement to freeze nuclear programs. In October 2002, the DPRK has adopted official position to deny the Geneva Agreement and the Non-proliferation Treaty obligations. Meanwhile, news media have been diligent in reporting high probability of the launcher test with longer range and more powerful capacity and furthermore possible revocation by DPRK of the moratorium.[12] North Korea last launched a high-profile missile test in March 2003, to coincide with the inauguration of South Korean President Roh Moo-hyun.[13] At last in March 2, 2005, according to internet news media, the DPRK said it was no longer bound by a self-imposed moratorium on long-range missile testing and the "hostile" US policy was forcing the country to develop its nuclear arsenal.[14] At last, on May 1, 2005, the DPRK conducted the test. White House Chief of Staff Andrew Card said that "It appears that there was a test of a short-range missile by the North Koreans and it landed in the Sea of Japan,"[15]

In a statement issued saying the missile test apparently took place, U.S. State

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11) http://www.spacedaily.com/news/korea-01a.html

12) http://www.cnn.com/2005/WORLD/asiapcf/02/10/nkorea.timeline /

13) http://news.bbc.co.uk/2/hi/asia-pacific/4314015.stm

14) http://www.spacewar.com/2005/050303085828.0e8pikwj.html ; http://news.bbc.co.uk/2/hi/asia-pacific/4314015.stm ; this news is confirmed via the testimony of the Mr. Christopher Hill, US Ambassador to Six-Party Talks before the US Senate, http://foreign.senate.gov/testimony/2005/HillTestimony050614.pdf

15) http://www.cnn.com/2005/WORLD/asiapcf/05/01/northkorea.missile /

Department spokesman Curtis Cooper said, "We are continuing to look into this, … We are consulting closely with governments in the region. We have long been concerned about North Korea's missile program and activities, and urge North Korea to continue its moratorium on ballistic missile tests."[16]

Based upon factual elements, a few important points would be inferred as follows. Firstly, the moratorium takes the form of unilateral legal act. Actually, the various sources support such aspect. It is said that the DPRK's self-imposed missile testing moratorium began in September 1999 and was extended in May 2001 (through 2003).[17] In January 2003, North Korean officials began hinting that the moratorium would end soon. In the six-way talks held in Beijing during the end of August 2003, North Korea hinted that it might hold a missile test soon to prove it can deliver nuclear warheads.[18]

Secondly, main concern has been taken with respect to the test itself rather than the status of the launcher. It seems not unusual, mainly because the apparent purpose of the test consists in military considerations, in that the launcher, whatever the payload may be for today, may be used for delivering any kind of bombs.[19] The interesting point here is that the legality of the launching and overflight being not questioned, the case is, at least temporalily, closed by the unilateral act by the DPRK. The purpose of the launching is not defined clearly, so it takes coniserable controverse to choose the applicable rules. That's maybe why main concern was taken to the test not the launcher, and why the unilateral act is a preferred way of freezing the confrontation. In other words, the rules of the law lack the validity and logic sufficient in

16) http://www.cnn.com/2005/WORLD/asiapcf/05/01/northkorea.missile /

17) http://www.cdi.org/friendlyversion/printversion.cfm?documentID=1677

18) Ibid.

19) "I believe it is completely irrelevant and I don't care whether it was a satellite putting in a small radio up in space or whether it was a straight missile test. The fact of the matter is that the North Koreans have demonstrated its capability to do a multistage missile that has the potential to carry a warhead a considerable distance", "1998 U.S. policy toward North Korea", hearing before the committee on international relations House of Representatives, September 21, 1998, testimony by Dr. Kurt Campbell, Deputy Assistant Secretary for Asia and Pacific Affairs, U.S. Department of Defense

dictating the conduct of the States.

IV. The space weaponization

1. State Positions Concerning Vertical Sovereignty

In the years since the drafting of the Chicago Convention, states have taken different positions on the extent of vertical sovereignty and definitions of their national airspace. There is no consensus today.[20] For example, in 2002, Australia began reforming its National Airspace System (NAS) based on international standards as applied in the United States, but with a defined upper limit of 60,000 feet *82 (18.3 kilometers) for Class A airspace. For space launch licensing purposes, Australia's Space Activities Act of 1998 defines a space object as a payload carried to or back from "an area beyond the distance of 100 kilometers above mean sea level." These acts do not mean, however, that Australia is renouncing any claims of sovereignty it may have to the area above 60,000 feet or even above 100 kilometers (62 miles).

Although the United States agreed with the principle of airspace sovereignty expressed in the Paris Convention, the United States signed it but did not ratify it. In the Air Commerce Act of 1926, the United States claimed "complete sovereignty of the airspace over the lands and waters of the United States." The United States ratified the Havana Convention in 1931 and the Chicago Convention in 1946.

The United States' position on the vertical extent of state sovereignty changed repeatedly in the 1950s and 60s. After examining U.S. laws, Professor Cooper concluded in 1965 that the United States claimed "complete, absolute and exclusive jurisdiction to control all types of flight in its territorial airspace zone" but that the United States had not specified the upper boundary of its

20) Rheinhardt op. cit.

sovereign airspace zone. The United States currently claims "exclusive sovereignty of airspace of the United States," and the term "airspace" is not further defined.[21] In the subsection defining the "use of airspace," use is linked to "aircraft." But the term "aircraft" is broadly defined as "any contrivance invented, used, or designed to navigate, or fly in, the air." This definition is broad enough to include rockets and other high altitude vehicles that do not rely on aerodynamic lift to "fly." In various sections of the U.S. Code, the term "outer space" is used in the definition of other terms but is not itself specifically defined.[22]

2. Proposed rationale of space weaponization

In 2006 the United States updated its space policy for the first time in more than a decade. The 2006 Space Policy brought many of the modern assumptions about the Outer Space Treaty under the official auspices of national policy. The policy also showcased the United States' continued departure from the idealistic intentions originally embodied in the Outer Space Treaty. In interpreting the "peaceful purposes" language of Article IV, the United States mandated as one of its core principles to "take those actions necessary to protect [the United States'] space capabilities; . . . and deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests." The 2006 Space Policy also addresses the goal of "[d]evelop[ing] and deploy[ing] space capabilities that sustain U.S. advantage."

The United States justified its 2006 Space Policy on grounds that space has become a critical component of its economy and national security. The United Nations Charter recognizes that self-defense is an inherent right of all states. It is undisputed that a critical component of United States self-defense is dependent on "space force enhancements." The United States has interpreted self-defense as including not only defense of a nation's people, but defense of

21) 49 U.S.C. § 40103(a)(1) (2006).

22) Rheinhardt op. cit.

a nation's property. Under the 2006 Space Policy, a threat on United States' space assets could justifiably result in the weaponization of space. It seems improbable that a policy with the stated goals of sustaining an advantage in space and "denying similar capabilities to others" is compatible with the Outer Space Treaty and reserving space for the benefit of all peoples.

The 2006 U.S. space policy is partially classified and has a disturbing ambivalence concerning the legitimacy of space law and its further development.[23] The Bush Administration opposes establishing new regimes that prohibit or limit U.S. use of or access to space. On the other hand, the Bush Administration is committed to existing treaty law. There is a somewhat illogical approach to future law as compared to present law.

V. Conclusion

In his testimony before the National Assembly on March 2005, the Director of Korean Intelligence Agency admitted that the payload launched on the DPRK launcher was a small-size satellite. It was the first time in the world that the officer of the national State government but the DPRK acknowledged it was the launcher test entailing some constitutive elements of space activity. Consequently, it is the first time that the flight of the launcher for putting the satellite on orbit has been denied its right to the freedom and access to the space.

As nations continue to test the boundaries of the Outer Space Treaty, it is becoming ever more clear that it has little strength to guide or control space actors. Space is becoming dangerously close to outright weaponization, and when it does there will be no guides to navigate through the uncharted dangers. A new body of space law is required; one that can recognize changes as rapidly as they arise. Fortunately, the international community can draw

23) Jonathan F. Galloway, "REVOLUTION AND EVOLUTION IN THE LAW OF OUTER SPACE", Nebraska Law Review, 2008, Conference on Space and Telecommunications Law

upon their successes in the past to create a dynamic and powerful body of space law that can react to the needs of the twenty-first century and beyond.

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초 록

1967년 우주조약은 제1조에서 우주공간의 이용의 자유를 규정하고 있으나, 우주공간의 법적지위는 물론, 우주활동의 개념도 규정하고 있지 않다. 이에 우주공간에서 발생하는 활동에 대해서 우주공간의 이용의 자유가 적용된다는 법 규범은 엄격한 논리에서는 성립되지 않는다.

아울러 우주공간을 이용하는 행위, 즉 동 조약에서 사용하고 있는 우주활동의 개념도 정의되어 있지 않기에 어떠한 활동이 우주공간의 이용의 자유를 향유할 수 있는가에 대한 법 규범도 성립되지 않는다. 다만, 우주활동이 제반 국제법 원칙 및 관련 우주법의 규점을 준수하여야 한다는 것만이 동 조약에 규정되어 있다. 이에 우주활동에의 적용 규범의 선택 문제는 법률적인 것이 아니라 정치적인 논리에 의하게 된다.

그 결과 우주공간의 군사적 이용을 규율할 수 있는 법규범은 법적안정성을 결여하고 있다고 판단된다.

주제어: 1967년 우주조약, 우주공간의 군사적 이용, 우주활동, 우주공간의 법적 지위, 우주공간의 이용의 자유

Abstract

The launching of the Taepo-dong 1 on 31 August 1998 by the North Korea was the first case where the diplomatic protests was made against the flight, the purpose of which, the launching State claimed, consisted in space exploration and use. It is the principle regarding the freedom of space exploration and use, as included in the international treaty, that is relevant in applying the various rules and in defining the legal status of the flight. Its legal status, however, was not actually taken into account, as political negotiations leading to the test moratorium has been successful until present day in freezing the political crisis. This implies that the rules of the law lack the validity and logic sufficient in dictating the conduct of the States. This case shows that, in effect, it is not the rule but the politics that is to govern the status of the flight.

Key Words : space flight, the exploration and use of the outer space, missile test, the freedom of space flight