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THE TAEPODONG MISSILE INCIDENT AND EMERGING ISSUES OF INTERPRETATION AND APPLICATION OF SPACE TREATIES

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Abstract

On 31 August 1998, a flying object was launched from North Korea(DPRK), flew over and past Japanese airspace and fell into the Pacific Ocean. The Japanese Government concluded that the object was a missile classified as Taepodong 1, while North Korea announced that it was a satellite. Be it a missile or a satellite, the launching without prior notification is in breach of the Annex 11 to the Chicago Convention and the IMO Assemble Resolution 706 . It is also in conflict with Article 87 paragraph 2 of the UN Convention on the Law of the Sea. However, in contrast to the fact that the launching is clearly in breach of rules of air and maritime law, the incident revealed that it was not easy to tell that such a launching was clearly in breach of space law. The problems of space law which the Taepodong incident poses are as follows: (1) As North Korea is not a Party to any of the Space Treaties, the incident poses that which of the relevant provisions of them have already crystallized as customary international law.

(2) It is a matter of interpretation whether a space object mentioned in the Liability Convention (and the Outer Space Treaty) includes a missile. (3) As to the Registration Convention, as North Korea is not a contracting party to the Convention, it is not easy to tell that the launching without any notification to the UN Secretary-General was in breach of the Convention. The Convention has no provision on notification before launching, which should be added. (4) As to the Outer Space Treaty, the launching poses the problem whether it is in breach of Article 4 which prohibits placing in orbit around the Earth any object carrying nuclear weapons or any other kind of weapons of mass destruction. Article 11 does not impose an obligation of prior notification. (5) No clear-cut delimitation between airspace and outer space poses a question whether the Taepodong invaded the territorial sovereignty of Japan.

1. BASIC FACTS OF THE INCIDENT

According to the Defense Agency of Japan, the basic facts of the incident is as follows : On 31 August 1998, shortly after noon Japan time, a flying object was launched from a missile- launching facility in eastern North

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Korea near Taepodong.

It is surmised that one to two minutes after launch, the flying object separated from another object(Object A), which fell into the Sea of Japan. The Object A is thought to be the propulsion device for the first stage of the missile.

The flying object which separated from Object A continued to gain speed. Some time after separating from Object A, it separated from a second object (Object B). This Object B is presumed to have flown over and past Japanese airspace before it fell into the Pacific Ocean off the Sanriku coast. In addition, judging from missile's flight, it was determined that Object B was the portion covering the outer tip of the flying object, but details are unclear.

The remaining portion (Object C) continued for several minutes on a level trajectory before re-entering the atmosphere. Later, it is assumed to have fallen into Pacific Ocean waters (high seas) beyond the Sanriku coast.

In addition, it was determined from the results of detailed analysis that a small object (Object D) had broken off from Object C immediately before Object C lost its propulsion. This Object D flew only briefly and did not reach the speed necessary for attaining a satellite orbit. Furthermore, judging from the flight conditions of this Object D, it is thought to have been using solid fuel.

Based on the conditions of its flight and other factors, it was determined that the flying object which was launched was a two-stage missile based on the missile classified by the United States as the Taepodong 1. [1]

2. SCOPE OF THIS ARTICLE

In this article, the present writer considers the legality/illegality of the launching from the point of the ICAO rules, the IMO rules, the UN Convention on the law of the Sea as well as a series of space treaties and make clear emerging issues of interpretation and application of space treaties.

3. VIOLATION OF AN ICAO RULE

Annex 11 (Air Traffic Services) to the Convention on International Civil Aviation (Chicago Convention) provides:

"2.17.1 The Arrangements for activities potentially hazardous to civil aircraft, whether over the territory of a State or over the high seas, shall be appropriate air traffic services authorities. The co-ordination shall be effected early enough to permit timely promulgation of information regarding the activities in accordance with the provision of Annex 15."

The above-mentioned rule is an international standard in the meaning of Article 38 of the Chicago Convention. The same article provides: " Any State which finds it impracticable to comply in all aspects with any such international standard or procedure, or to bring its own regulations or practices into full accord with any international standard or procedure after amendment of the latter, or which deems it

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necessary to adopt regulations or practices differing in any particular respect from those established by an international standard, shall give immediate notification to the International Civil Aviation Organization of the differences between its own practice and that established by the international standard." North Korea (Democratic People's Republic of Korea, DPRK) , a Contracting Party to the Convention, did not contract-out the above-mentioned international standard in accordance with this article and she is bound by them. Therefore, the launching without prior notification was against the ICAO rule.

North Korea reportedly argued that she launched a satellite and that Japan when launching satellites did not make prior notification to her. However, the above-mentioned ICAO rule is applicable whether it is a missile or a satellite. The argument for a kind of "reciprocity" lacks its factual basis as Japanese satellites which are naturally eastbound are nothing to do with North Korea which is in the west of Japan [2].

On 2 October 1998, International Civil Aviation Organization (ICAO) Assembly adopted the Resolution A32-6, which provides:

"Having considered that on August 31, 1998, an object propelled by rocket was launched by a certain Contracting State and a part of the object hit the sea in the Pacific Ocean off the coast of Sanriku in northern Japan;

Having considered that the impact area of the object was in the vicinity of the international airway A590 which is known as composing NOPAC Composite Route System, a trunk route connecting Area and North America where 180 flights of various countries fly every day ;

Having considered the launching of such an object vehicle was done in a way not compatible with the fundamental principles, standards and recommended practices of the Convention on International Aviation ; and

Noting that it is necessary that international aviation should be developed in a safe and orderly manner, and that the Contracting State will take appropriate measures to enhance further the safety of international civil aviation ;

The Assembly :

1. Urges all Contracting States to reaffirm that air traffic safety is of paramount importance for the sound development of international civil aviation ;

2. Urges that all Contracting States to strictly comply with the provisions of the Convention on International Civil Aviation, its Annexes and its related procedures, in order to prevent a recurrence of such potentially hazardous activities ; and

3. Instructs the Secretary General to immediately draw the attention of all Contracting States to this resolution."

4. CONFLICT WITH AN IMO RULE

The launching without prior notification is also in conflict with the IMO Resolution A.706 (17) on the World-Wide Navigational

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Warning Service of 6 November 1991, although the Resolution itself has no binding power and it is only recommendatory. The Resolution adopted the IMO/IHO World-Wide Navigational Warning Service-Guidance Document. 1.2.1.3 of the Document provides:

"The following subject areas are considered suitable for transmission as NAVAREA warnings. This list is not exhaustive and should be regarded only as a guidance. Furthermore, it presupposes that sufficiently precise information about the item has not previously been disseminated in a notice to mariners:

.13 information concerning special operations which might affect the safety of shipping, sometimes over wide areas, e.g. naval exercises, missile firing, space missions, nuclear tests, etc. It is important that where the hazard is known, this information is included in the relevant warning. Whenever possible, such warnings should be originated not less than five days in advance of the scheduled event. The warning should remain in force until the event is completed. "

On 21 December 1998, the IMO Maritime Safety Committee adopted a circular (MSC/Circ.893) entitled "Navigational Warning Concerning Operations Endangering the Safety of Navigation", which provides:

" 1. The Maritime Safety Committee, at its seventieth session (7 to 11 December 1998), received a report on an accident which occurred on 31 August 1998 involving the launching of an object propelled by rockets which fell into the waters in the vicinity of Japan being major trade routes and important fishing grounds.

2. The Committee, although noting that fortuitously, no harm had been reported to have been caused to vessels navigating in the aforementioned areas, expressed concern that, nevertheless, the reported launching had the potential of posting a serious threat to the safety of navigation.

3. The Committee, therefore, invited Member Governments to :

-attach the greatest importance to the safety of navigation and avoid taking any action which might adversely affect shipping engaged in international trade; and

-strictly comply with the recommendations contained in resolution A.706 (17) on the World-Wide Navigational Warning Service (in particular, paragraphs 4.2.1.3.13 and 6.6.1.5.and 6.6.1.9 of Annex 1 (IMO/IHO World-Wide Navigational Warning Service Guidance Document) thereto) so that operations should not endanger the safety of navigation."

5. RELATIONSHIP WITH FREEDOM OF THE HIGH SEAS

Freedom of the high seas is not absolute. Article 87 paragraph 2 of the UN Convention on the Law of the Sea (UNCLOS, 1982) provides: "These freedoms shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas." The Convention

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on High Seas(1958) has almost the same provision. Article 2 paragraph 2 provides: "These freedoms, and others which are recognized by the general principles of international law, shall be exercised by all States with reasonable regard to the interests of other States in their exercise of the freedom of the high seas. " Although North Korea is neither a State Party to these Conventions, these are considered to be established as customary international law.

The missile launching by the North Korea is in conflict with this rule because the launching object endangered a busy international airway A590. [3]

6. RELATIONSHIP WITH THE SPACE TREATIES

As North Korea is neither a State Party to any Space Treaties (Outer Space Treaty, Rescue Agreement, Liability Convention and Registration Convention), the missile launching poses a common and difficult legal problem ; which of the relevant provisions of them have already crystallized as customary international law ? The present writer considers briefly the following legal problems, namely [1] Definition of Space Object and Missile, [2] Registration and Prior Notification, [3] Placing weapons of Mass destruction and [4] Delimitation between Airspace and outer Space. .

[1] Definition of Space Object and Missile

Article 1 (d) of the Liability Convention and Article 1 (b) of the Registration Convention provide : "The term "space object" includes component parts of a space object as well as its launch vehicle and parts thereof." No definition of "space object" is given in the Outer Space Treaty and the Liability Convention. The first question is whether every object launched into outer space is "space object" or there are some objects launched into outer space that are not "space object"[4].

For the purpose of this paper, suffice it to say that the relevant problems on the definition of "space object" are [A] whether the Liability Convention is applicable also to missiles and [B] whether the Registration Convention requires launching of a missile. As to [A], the Unites States considers that ballistic missiles fall under the Liability Convention.[5] As damage is caused on the surface of the earth by missiles as well as by satellites, it would be unreasonable to consider that the Liability Convention only covers satellites and not missiles. In order to secure "a full and equitable measure of compensation to victims", which is one of the major purposes of the Convention, missiles also should fall under the Convention. [B] is considered in [2] below.

[2] Registration and Prior Notification

Article 11 of the Outer Space Treaty provides that States Parties to the Treaty conducting activities in outer space agree to inform the Secretary-General of the UN as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such

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activities. The words "to the greatest extent feasible and practicable" makes this provision a kind of obligation of efforts [6] and it does not impose an obligation of prior notification.

Article 2 paragraph 1 of the Registration Convention provides : " When a space object is launched into earth orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain. Each launching State shall inform the Secretary-General of the United Nations of the establishment of such a register. " According to Bin Cheng; " Basically, the use of this formula, in either form, is to exclude from the need of registration "space object" that are not being "launched into earth orbit or beyond ". Typical examples of what this formula intends to exempt from registration would be sounding rockets and ballistic missiles, which (or the payload of which) are not placed in any orbit but are intended either to return to the vicinity of the launch site or to land on their target on the earth."[7]

At any rate, notification provided in the Outer Space Treaty and the Registration Convention is a treaty-based obligation and not an obligation under customary international law. Therefore, this treaty-based obligation is not opposable to North Korea (*res inter alios acta*).

It is very irregular that an allegedly launching State is not a State Party to any of the Space Treaties. The United Nations should request North Korea to join the Treaties if she really is developing space activities. The United Nations also should adopt a resolution which bans space activities by States which refuse to join the Treaties.

Another potential problem is that the Registration Convention has no provision on notification *before* launching. The provision imposing *prior* notification should be added to the Convention in order to make launching transparent and to make precautionary measures possible.

[3] Placing Weapons of Mass Destruction

Article 4 paragraph 1 of the Outer Space Treaty provides : "States Parties to the Treaty undertakes not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner."

The legal points relevant to the Taepodong incident are as follows : If the launching object, missile or satellite, carries nuclear weapons or any other kinds of weapons of mass destruction, it is in conflict with this Article. However, as there was no agreement to refrain from either (a) using any kind of weapon in outer void space and (b) sending any kind of weapon to their target through outer void space, "the 1967 Treaty is certainly no obstacle to the passage through outer void space on their way to their targets of land-to-land, sea-to-land or air-to-land ballistic missiles with nuclear warheads." [8] The problem of demilitarization of the outer space is too big to be dealt with here.

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[4] Delimitation between Airspace and Outer Space

Did the Taepodong missile which flew over Japan violated territorial sovereignty of Japan ? This question, however, is hard to solve even if the exact route of the flying are made known, because there is no clear-cut delimitation between airspace and outer space. The Taepodong incident reveals that this pending situation makes national security unstable.

7. PRESENT AND FUTURE RESPONSES

The launching of a missile above and over one State is illegal, the territorial State can take some countermeasures, whether "non-military reprisals" (*per se* illegal measures but the wrongfulness is precluded because of the preceding wrongful act) or "retorsions" (*per se* legal but unfriendly measures). Even if it is not illegal, it is no doubt an unfriendly act and the territorial State can take "retorsions". In this case, Japan, after lodging a protest, took some economic measures against North Korea . Those measures were "retorsions" rather than "non-military reprisals".[9]

As to the anti-missile defense measures, Chief Cabinet Secretary of Japan, in an Announcement on Japan's Immediate Responses to North Korea's Missile Launch (1 September 1998), stated: "In connection with Japan's defense policy, technical study on the ballistic missile defense system will be further continued."[10]

The basic position of the Japanese Government on (National) Missile Defense by the US is summarized as follows : "1. The Government of Japan shares the recognition with the United States that the proliferation of ballistic missiles is causing a serious threat to our security. 2. Japan and the United States are conducting cooperative research on ballistic missile defense technologies. As such, bilateral cooperation is important for the security of Japan, and we will continue to cooperate on this research. 3. The Government of Japan expresses the understanding that the United States is considering the missile defense program while making various diplomatic efforts to address the proliferation of ballistic missile. 4. The Government of Japan welcomes President Bush's reference, in his recent speech, to further cut in nuclear weapons. 5. Finally, the government of Japan hopes that the missile defense issue will be dealt with in a manner that is conductive to the improvement of the international security environment, including in the areas of arms control and disarmament. Japan welcomes the US side's renewed announcement of conducting close consultations on this issue with allies and such other interested States as the Russian Federation and the People's Republic of China."[11]

Now it is well known that the Anti-Ballistic Missile (ABM) Treaty of 1972 between the USA and USSR is in conflict with the new US missile defense initiative, as Article 1 paragraph 2 provides : "Each Party

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undertakes not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided for in Article 3 of this Treaty. " and Article 3 permits each Party to deploy only one ABM system to defend its capital and only one to defend a region containing ICBM silo launchers. If the US wants to abrogate the Treaty and Russia is against the US, the US, upon its decision that extraordinary events related to the subject matter of this Treaty have jeopardized its supreme interests, can withdraw from this Treaty six month after giving notice of its decision to Russia. (Article 15 paragraph 2).

Even if the US does not abrogate the Treaty unilaterally, doctrine of *rebus sic standibus* might justify its termination, as Article 62 paragraph 1 of the Vienna Convention on the Law of Treaties provides : "A fundamental change of circumstances which has occurred with regard to those existing at the time of the conclusion of a treaty, and which was not foreseen by the parties, may not be invoked as aground for terminating or withdrawing from the treaty unless: (a) the existence of those circumstances constituted an essential basis of the consent of the parties to be bound by the treaty ; and (b) the effect of the change is radically to transform the extent of obligations still to be performed under the treaty ." This Article is considered to be a codification of existing customary law. [12] It is a matter of interpretation whether the conditions which justify the fundamental change of circumstances are met . [13] However, in the reality of diplomacy, governments seldom, if any, opt for the doctrine *rebus sic standibus* when the abrogation is provided in the treaty concerned.

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1 Defense Agency, *Defense of Japan 1999*, (translated and published by Urban Connections, 1999), pp. 203-204. On the reactions by the government of Japan, *see* Kazuhiro Nakatani and Akio Morita, The Taepodong Missile Incident and the Responses Thereto, *Japanese Annual of International Law No. 43 , 2000* (2001), pp. 150-162.

2 On 8 September 1998, Press Secretary of the Ministry of Foreign Affairs stated at the press conference as follows : "I am aware that there are some reports emanating from North Korea that they claim that they launched a satellite. We have not been able to verify it. But the question of possible hazards to civil aviation do apply, whether the object being launched is a missile or a launching rocket for satellite. Materially, it is about the same thing and in that connection, I would like to note that when Japan launches it satellites, purely for civil purposes as you know, we do follow strictly the rule of notifying the authorities concerned in the various countries which may be near the area where the launched rocket may fall. In fact, the National Space Development Agency (NASDA) is in the habit of giving prior notice to the authorities concerned, at least two days before the actual launching at 1500.

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That is what we have done, for example, with respect to the launching of the SS-521-1 rocket from Tanegashima on 5 February. That is what we have also done with respect to the launching of the H-2 rocket from the North pacific on 20 February, to take recent examples."

http://www.mofa.go.jp/announce/press/1998/9/908.htm/#2

[3] On 3 September 1998, Japan's Prime Minister replied at the House of Councillors as follows . " It is hard to say that the launching of a missile by North Korea without prior notification paid due regard for the interests of other States and I suspect that it is in conflict with the UNCLOS.

[4] Bin Cheng, *Studies in Space Law*, 1997, p.493.

[5] US Senate, *Report from the Committee on Foreign Relations on the Convention on International Liability for Damage Caused by Space Objects,* 92nd Congress, 2nd Session, Executive Report No. 92-38 (1972), p.7, cited by Cheng, *ibid.*, pp. 498 (note 5) and 602(note 8).

[6] In international law, there exists "best efforts" obligations. In the Heathrow Airport User Charges Arbitration of 30 November 1992, the Tribunal concluded that the UK failed to fulfil its obligations under the UK-US Air Agreement of 1977 (Bermuda 2) by reason of its failure to use its best efforts to lower the level of user charges at Heathrow.
International Legal Reports, vol. 102(1996), p.528.

[7] Cheng, *op.cit.*, p.494.

[8] Cheng, *op.cit.*, p.531

[9] The measures included suspension of food and other assistance North Korea, suspension of progress on Korean Energy Development Organization (KEDO), non-permission of chartered cargo flights by Koryo Airlines. Nakatani and Morita, *op.cit.*, pp. 151-157.

[10] Nakatani and Morita, *op.cit.*, pp. 153.

[11] Press Conference by the Press Secretary of the Japanese Ministry of Foreign Affairs, 1 June2001,http://www.mofa.go.jp/announce/press/ 2001/6/601.html#8

[12] *ICJ Reports 1973*, p.18. Therefore, it can be applied to the legal relationship between the US (a non- Party to the Vienna Convention) and Russia (a Party to it).

[13] On this point, see Rein Mullerson, The ABM Treaty : Changed Circumstances, Extraordinary Events, Supreme Interests and International Law, *International and Comparative Law Quarterly*, vol. 50 (2001), pp. 509-539, Frederic L. Kirgis, Proposed Missile Defenses and the ABM Treaty, *ASIL Insights*(May2001), http://www.asil.org/insights/insigh70.htm