

# **Target Practising in a Global Commons: The Chinese ASAT Test and Outer Space Law**

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## 1. Introduction

When the People's Republic of China destroyed one of its own defunct meteorological satellites, the Fengyun-1C, at an altitude of some 865 km above the earth's surface, by means of classical kinetic interceptor impact on 11 January 2007 –and only admitted as much after having been confronted with public claims by other states more than a week after the fact – this raised a huge outcry.<sup>10)</sup> The PRC was accused of initiating, or at the very least risking an(other) arms race in outer space also, many commentators pointed to the considerable amount of space debris wantonly created by the target practicing – as that was what it essentially amounted to.

Whilst the United States and Russia, both amongst the most vociferous protesters, both acknowledged that they themselves had undertaken similar anti-satellite (so-called 'ASAT') weapon tests in the past, they correctly pointed out that already since the early eighties they had ceased to do so. This cancellation had been partly in view precisely of the amount of space debris generated in orbits too close for comfort to useful ones, including also orbits used by their own space objects – and, one may safely presume, also because further tests somehow would not bring sufficient further benefits in terms of testing experience to justify such frowned-upon behaviour.

That evaluation should also serve to see the military- and security-related aspects of the Chinese ASAT test in proper perspective. While no test of a space-directed weapon should be taken lightly and could indeed cause serious ripples in an international security context if already fragile, the test in itself was no more than a trick the two superpowers had played themselves over two decades ago, and could not be seen therefore as an immediate and substantial threat to the geo-strategic balance. That the People's Republic of China showed its muscle in space, as one of only a few nations so far to do so, would only run the risk of triggering harmful developments in terms of the

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10) Cf. for details on testing and comments e.g.  
[http://www.space.com/news/070202\\_china\\_spacedebris.html](http://www.space.com/news/070202_china_spacedebris.html)  
[http://www.space.com/news/070124\\_china\\_asat\\_spacearms.html](http://www.space.com/news/070124_china_asat_spacearms.html).

international security-balance if the reaction would be either to completely ignore it, or of an over-heated nature. In the end, the outcry died down rather rapidly, at least as far as general public and media were concerned.

Those political and strategic considerations left aside, the test also gave rise to a few legal questions as to the permissibility of this test, and the broader permissibility of using space for military and other weapon-touting activities, as commentators voiced their concerns over such possible strategic/political fall-out. This article, in honour of the retirement of my good friend Professor Hong, citizen in a country rather close to the main perceived 'culprit' of this story, the PRC, represents an analysis of the few most important legal issues.

## 2. The Outer Space Treaty and the military use of space

In view of the efforts to brandish the PRC's military activities as somehow illegal, it is important first to dispel the often-voiced notion that the Outer Space Treaty<sup>11)</sup>, the first proper treaty dealing exclusively with the legal status of outer space and outer space activities, would prohibit the militarization or even weaponization of that area. Already the fact that the Outer Space Treaty, drafted in the course of 1966 and 1967, managed to be almost immediately ratified by both the United States and the Soviet Union, the two superpowers in space, should alert observers to the unlikelihood of such a prohibition. And whilst the Outer Space Treaty did curb the military use of outer space to a certain – and rather beneficial – extent, indeed it did not dare to infringe on those freedoms of usage for military purposes which the superpowers perceived as essential to their security.

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11) Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereafter Outer Space Treaty), London/Moscow/ Washington, done 27 January 1967, entered into force 10 October 1967; 610 UNTS 205; TIAS 6347; 18 UST 2410; UKTS 1968 No. 10; Cmnd. 3198; ATS 1967 No. 24; 6 ILM 386 (1967).

The baseline of the legal regime for outer space is its character as a 'global commons', roughly comparable to the high seas: an area beyond the jurisdiction of any particular state on an exclusive territorial basis and never even possibly prone to national appropriation, that is colonization in legal terms.<sup>12)</sup> Thus, the freedom of "exploration and use" of outer space was offered by the Outer Space Treaty as its guiding principle, meaning *inter alia* that any limits to such freedom could only be asserted by general agreement at the international level by relevant states, notably by the enunciation of treaty provisions.<sup>13)</sup>

The Outer Space Treaty itself then already provided for some of those limits, relevant for the current issue also because the treaty was indeed envisaged amongst others to curb any extension of the ongoing terrestrial arms race between the two superpowers to outer space - to the extent of course these two states were interested in such a limitation exercise.

In general terms, the reference in Article I of the Outer Space Treaty to the requirement that "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 (···), and shall be the province of all mankind" should be noted next. It imposed an obligation on states effectively not to allow their own security concerns to override concerns for the potential harmful effects on other states, including the possibility that threatening behavior would cause a substantial deterioration in international relations - with the tacit but obvious understanding that this would not apply in case the state considered its supreme interests, such as in its own survival, at stake, in line with the classical doctrine on self-defense.<sup>14)</sup>

Whilst the PRC was not at all threatened on its part so as to justify invoking its supreme interests, it is submitted that it would also be hard to argue that the test in itself constituted or caused a substantial deterioration in international

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12) See Art. II, Outer Space Treaty.

13) Art. I, Outer Space Treaty.

14) Cf. also Art. 51, Charter of the United Nations (hereafter UN Charter), San Francisco, done 26 June 1945, entered into force 24 October 1945; USTS 993; 59 Stat. 1031; UKTS 1946 No. 67; Cmd. 6666 & 6711; ATS 1945 No. 1.

relations. Any such conclusion, it seems, would require a rather more substantial and longer-term strain of negative reactions than the few days of public outcry which actually occurred; and it does not seem in the longer-term interest of international law to apply a rather low threshold for such a conclusion –which would probably cause such a conclusion to be drawn on a weekly or monthly basis worldwide, not to mention also in regard of the US and Soviet tests of decades ago.

The aforementioned provision of Article I was further reinforced in its meaning by the reference to general international law and specifically the UN Charter, and the specific resulting obligation for space activities to be "in the interest of maintaining international peace and security and promoting international cooperation and understanding", which should be read in the same light as Article I itself.<sup>15)</sup>

Thus, to refer to the most glaring example here, using space or space weapons for an act of aggression against a sovereign state is prohibited just as the use of any terrestrial means for such purposes is prohibited –but the authority of establishing that an act of aggression in this sense of the word has occurred rests with the UN Security Council, and has only been invoked once even in terms of terrestrial conflicts.<sup>16)</sup> Clearly, this was not at stake in the case of the Chinese ASAT test under consideration.

Or, to use a more specific example, the explicit prohibition of the Test Ban Treaties to test nuclear weapons in outer space<sup>17)</sup> is to be honored without further ado, courtesy of Article III of the Outer Space Treaty. Once more, the

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15) Art. III, Outer Space Treaty.

16) See Artt. 2(3), (4) & (5), 24(1) & (2), esp. 39–50, UN Charter. The invasion of Kuwait by Iraq was the only case where the UN Security Council was able to come to the conclusion essentially that this constituted an act of aggression, as unanimity amongst the five permanent members of the Security Council is required in addition to an overall majority of the members of the Security Council of at least nine–against–six; see Art. 27(3).

17) See Art. I(1.a), Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, Moscow, done 5 August 1963, entered into force 10 October 1963; 480 UNTS 43; TIAS 5433; 14 UST 1313; UKTS 1964 No. 3; ATS 1963 No. 26; Art. I(1), Comprehensive Test Ban Treaty, New York, done 24 September 1996, not yet entered into force.

Chinese ASAT test does not meet the standard for application of these clauses, as the destruction was effected by a 'simple' kinetic interceptor, not by means of nuclear weapons.

More to the point as for military activities in outer space under the Outer Space Treaty, Article IV was specifically targeted at such military usage. On the one hand, it provided that, as for the global commons of outer space as such, it was prohibited "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". Since there would be general agreement that 'simple' kinetic interceptors are not to be included in this concept of "weapons of mass destruction", the only conclusion can be that the Chinese ASAT test did not constitute a violation of this clause.

On the other hand, Article IV reserved the Moon and other celestial bodies "exclusively for peaceful purposes". Whatever the precise meaning of that latter concept, the Article went on to specifically allow for "use of military personnel for scientific research or for any other peaceful purposes", which "shall not be prohibited" only the "establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies" were specifically forbidden. As these restrictions on the freedom of space for military purposes were not applied to outer space as such, it should already be clear that from the very beginning a comprehensive ban on militarization or even weaponization has, indeed, never existed; and these clauses certainly do not apply to the case under consideration.

Other provisions of the Outer Space Treaty furthermore could only have an indirect bearing on the legality of (certain) military usages of outer space and/or their consequences. Such provisions referred to international responsibility of states for activities in outer space and their conformity with the regime of the Outer Space Treaty<sup>18)</sup> and the liability for damage resulting from space activities, to which we shall return below.<sup>19)</sup>

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18) See Art. VI, Outer Space Treaty.

In result, as the act itself of destroying one's own satellite or even of creating space debris can not be found to be in violation of any of the above provisions, essentially three provisions in or following from the Outer Space Treaty are left which would merit a closer look in order to assess the Chinese ASAT test from a legal perspective. The first concerns Article IX of the Outer Space Treaty, the second Article VII as further elaborated by the 1972 Liability Convention<sup>20)</sup>, and the third certain rules under the 1975 Registration Convention<sup>21)</sup> as it elaborated Article VIII of the Outer Space Treaty.

### 3. Information and consultation: Article IX of the Outer Space Treaty

One of the main a priori obligations relevant to the case at hand derives from Article IX of the Outer Space Treaty, where it provides in relevant part, firstly, that states "shall conduct all their activities in outer space, including the Moon and other celestial bodies, with due regard to the corresponding interests of all other States Parties to the Treaty", and furthermore that they shall "conduct exploration of them so as to avoid (··) harmful contamination".

The reference to "corresponding interests of all other States Parties to the Treaty" – which concerns some 97 other states including almost all spacefaring nations<sup>22)</sup> – must be taken to be considerably more precise than the clause in Article I to "the benefit and (··) interests of all countries", in view of the specific relationship to the space activities of other states referred to under

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19) See Art. VII, Outer Space Treaty.

20) Convention on International Liability for Damage Caused by Space Objects (hereafter Liability Convention), London/Moscow/Washington, done 29 March 1972, entered into force 1 September 1972; 961 UNTS 187; TIAS 7762; 24 UST 2389; UKTS 1974 No. 16; Cmnd. 5068; ATS 1975 No. 5; 10 ILM 965 (1971).

21) Convention on Registration of Objects Launched into Outer Space (hereafter Registration Convention), New York, done 14 January 1975, entered into force 15 September 1976; 1023 UNTS 15; TIAS 8480; 28 UST 695; UKTS 1978 No. 70; Cmnd. 6256; ATS 1986 No. 5; 14 ILM 43 (1975).

22) As per 1 January 2006, the Outer Space Treaty counts 98 states parties with a further 27 states having signed the treaty; see <http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html> .

Article IX and the obvious reciprocity concerned. This reference already points forward to the issue of space debris as created by the wanton destruction of the Chinese weather satellite that was the target of the practise.

The key point then would be: who is to make the judgement whether such "corresponding interests" have been duly regarded, or whether these interests were harmed to such an extent that the Chinese interests in conducting the ASAT test would not justify such harm.

From the text of Article IX itself it can only be concluded that, in line with general practices in international law, barring explicit arrangements to the contrary it was the People's Republic of China which in this case was to make such judgement. As a consequence, any such a priori judgement by the PRC that its intended targeting practice would not unduly disregard "the corresponding interests of all other States", nor would result in "harmful contamination" (emphasis added), would suffice for the conclusion that the PRC acted in conformity with this clause.

The only exception to that conclusion would be if the PRC's judgement would somehow be clearly unreasonable, if it would be in bad faith. If it could be convincingly argued that interests would be harmed and that contamination occurring would be of a harmful character, a contrary judgement by the responsible Chinese authorities would amount to an abuse of its right to decide whether its activities would call for the information and consultation of other states under Article IX.

The last word here is therefore essentially to the scientists, engineers and other space practitioners, in determining whether the PRC should have informed and consulted other states prior to the launch of the killer vehicle. Considering however the amount of space debris generated by the test<sup>23)</sup> the current attention being paid globally to this problem, and the fact that both the

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23) Space.com estimates a total amount of some 950 pieces of 10 cm or larger in size plus some 35,000 of 1 cm or larger, at altitudes ranging from 200 to 4,000 km; hence encompassing all the LEO orbits such as that of the ISS, and moreover of such a nature that space debris has a long lifetime in such orbits before it properly decays to irrelevance;  
see [http://www.space.com/news/070202\\_china\\_spacedebris.html](http://www.space.com/news/070202_china_spacedebris.html),



United States and the then-Soviet Union had already in cancelling their ASAT tests pointed to the generation of space debris as a major reason for ceasing such tests, *prima facie* the verdict here should run that the PRC, indeed, should have undertaken such a priori consultation, and that in failing to do so it violated its obligations under Article IX of the Outer Space Treaty. The fact that only upon considerable pressure from the outside world the PRC then, days after the event, admitted its occurrence, does furthermore not exactly speak in favour of a different verdict.

Finally, the fact that Article IX of the Outer Space Treaty does not prohibit the ASAT test as such, and that even consultations undertaken in conformity with Article IX would not have taken away in itself the PRC's right to conduct the test, and thus could never have impinged upon the supreme interests of the PRC if it would have considered those to have been at stake with the testing, makes the omission on the part of the PRC's authorities all the more reproachable.

In line with the generally acknowledged principles on state responsibility as dating back already to the famous Chorzow Factory-judgement by the Permanent Court of International Justice in 1928. Case concerning the factory at Chorzów (Merits)(Germany v. Poland), Permanent Court of International Justice, 13 September 1928,<sup>24)</sup> the questions of material damage and registration aside (as these will be dealt with in the next paragraphs), the internationally wrongful act of the PRC in non-consultation where such consultation would have been due should be remedied by official apologies and a promise that care would be taken to avoid repetition of such an omission of the future -if, indeed, a promise not to test any more ASAT weapons would be considered contrary to the supreme interests of the PRC.

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24) P.C.I.J., Ser. A, No. 17. The key statements relevant for the present purpose provide that "it is a principle of international law, and even a greater conception of law, that any breach of an engagement involves an obligation to make reparation", and that "reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not occurred", pp. 29 resp. 47-8; see further e.g. M.N. Shaw, *International Law* (3rd ed.)(1991), 482, 496-9; A. Cassese, *International Law* (2001), 1979.,

#### 4. Liability: Article VII of the Outer Space Treaty and the Liability Convention

Both the legality of the Chinese ASAT test as such and the violation of the obligation of the PRC under Article IX of the Outer Space Treaty do not fundamentally detract from the obligations in terms of liability as following from Article VII of the Outer Space Treaty and, in particular, the Liability Convention to which the PRC is also a party.

Article VII of the Outer Space Treaty merely posits the general principle of international liability for damage caused by a space object, as resting upon the state(s) launching, procuring the launch or lending their territory or facility to the launch of the said space object.<sup>25)</sup> As further elaborated by the Liability Convention, there are thus three key 'triggers' for the Convention to be applicable to this case: (1) damage (2) caused by a space object (3) launched with involvement of the PRC in one of the ways referred to.<sup>26)</sup>

As regards the last trigger, there would be few problems of application. In respect of both the weather satellite targeted and the killer vehicle, there is no doubt that the PRC would qualify on all counts as 'the launching State' for purposes of the Liability Convention: both were launched by the PRC, paid for and organised by the PRC<sup>27)</sup>, and those launches took place from PRC

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25) Art. VII, Outer Space Treaty, provides in full: "Each State Party to the Treaty that launches or procures the launching of an object into outer space, including the Moon and other celestial bodies, and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies."

26) Art. I(c), Liability Convention, uses the same fourfold criterion for a state to qualify as a liable state for damage caused by a space object under consideration as Art. VII, Outer Space Treaty, whilst now labelling it more formally as "the launching State".

27) Though there is no formal definition of 'procurement' in the Convention (or for that matter anywhere else in international space law), most experts would agree that paying for and/or organising a particular launch would in all cases qualify as such, and present the undisputed core of any notion of 'procurement' if it is to make any sense. Cf. e.g. K.H. Bockstiegel, The Terms "Appropriate State" and "Launching State" in the Space Treaties -

(governmental) facilities on Chinese territory.

As to the first trigger, of course so far – at least as far as known – the fragmentation of the weather satellite has not yet caused any damage. Damage, it may be noted, is defined by the Liability Convention as meaning "loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations".<sup>28)</sup> No cases have been reported so far of any such damage possibly caused by the Chinese ASAT test anywhere on earth, and the same applies to space objects<sup>29)</sup> in spite of the fact that for example serious concerns had been expressed in particular by those states currently building the International Space Station (ISS).<sup>30)</sup>

It should be noted here, however, that the drafters of the Liability Convention took into account the possibilities that damage caused by a space object could only be detected and/or determined as such a considerable time after the key event. Thus, to begin with the Convention allows for a full year to elapse after "the date of the occurrence of the damage or the identification of the launching State which is liable", within which a state is still entitled to

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Indicators of State Responsibility and Liability for State and Private Space Activities, in Proceedings of the Thirty-Fourth Colloquium on the Law of Outer Space (1992), 15; K.H. Bückstiegel, The Term "Launching State" in International Space Law, in Proceedings of the Thirty-Seventh Colloquium on the Law of Outer Space (1995), 81–2; F.G. von der Dunk, Sovereignty Versus Space – Public Law and Private Launch Activities in the Asian Context, 5 *SJICL* (2001), 38–42; K.U. Schrogl, A New Look at the Concept of the "Launching State", 51 *ZLW* (2002), 368–9

28) Art. I(a), Liability Convention.

29) One may note that the Liability Convention fundamentally distinguishes between absolute liability for damage caused on earth or to aircraft in flight (Art. II) and fault liability for damage caused to other space objects in outer space (Art. III).

30) The International Space Station is an international cooperative project involving the United States, the Russian Federation, Japan, Canada and eleven European states as represented by the European Space Agency (ESA). Legally speaking, the project is based on the Agreement among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station, Washington, done 29 January 1998, entered into force 27 March 2001; Space Law – Basic Legal Documents, D.II.4.

bring forward any claim regarding such damage.<sup>31)</sup>

Even more importantly, paragraph 2 of Article X provides: "If, however, a State does not know of the occurrence of the damage or has not been able to identify the launching State which is liable, it may present a claim within one year following the date on which it learned of the aforementioned facts; however, this period shall in no event exceed one year following the date on which the State could reasonably be expected to have learned of the facts through the exercise of due diligence".<sup>32)</sup>

In other words, other states would have at least until January 2008, a year after the ASAT test itself, to put forward a claim –and the PRC would have to wait at least that long before it could be reasonably certain that no such claim would come forward with any chance of success.

As for the second trigger finally, *prima facie* there may be some issues regarding the question as to what constitutes a 'space object' for the purpose of making the Liability Convention applicable. The Convention itself only goes some way towards properly defining the concept by offering that it "includes component parts of a space object as well as its launch vehicle and parts thereof".<sup>33)</sup> Furthermore, it makes implicitly clear, by way of the formulation of many of its other provisions, that a key criterion in determining whether a man-made object constitutes a space object concerns its being launched into outer space, which is then taken to actually include attempts to launch it even if aborted or failed, making the intention to launch something into outer space the baseline criterion for determining something constitutes a space object.<sup>34)</sup>

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31) Art. X(1), Liability Convention.

32) Art. X(3), Liability Convention, then adds: "The time limits specified in paragraphs 1 and 2 of this article shall apply even if the full extent of the damage may not be known. In this event, however, the claimant State shall be entitled to revise the claim and submit additional documentation after the expiration of such time limits until one year after the full extent of the damage is known".

33) Art. I(d), Liability Convention.

34) Cf. also Art. I(b), Liability Convention, including "attempted launching" in the term "launching". Further see K.H. Bäckstiegel, The Term "Launching State" in International Space Law, in Proceedings of the Thirty-Seventh Colloquium on the Law of Outer Space (1995), 81; B. Cheng, Studies in International Space

That both the weather satellite and the killer vehicle clearly qualify under the above quasi-definition, requires no further argumentation. However, at issue in the present case would not be damage caused, for example to the ISS, by either the weather satellite or the killer vehicle itself, but by fragments of either, which may well be rather minute fragments from a normal perspective – famously, millimeter-size paint chips can cause severe damage to the space shuttle merely on account of their speed of impact.

Whilst such fragments do not sit well, conceptually speaking, in the notion of ‘component parts’ as forming part of the concept of ‘space object’, if fragments were to be excluded from the concept of ‘space object’ and hence damage caused by them would be irrecoverable under the Liability Convention, the latter would lose a considerable amount of relevance, perhaps almost enough to deny it much practical value. Therefore, legal experts have concluded that logically speaking damage caused by fragments (part of the wider phenomenon of ‘space debris’) should be included in the scope of the Liability Convention. Hence, the PRC would indeed be liable if fragments from either of the space objects concerned would cause damage to other states’ space objects or other property of theirs or their nationals.

The theoretical issue of damage thus being solved, the main problem would lie elsewhere – how to determine that a specific fragment causing damage would indeed be a fragment that sprung off from the weather satellite or the killer vehicle, in other words: how to establish the causal link to the PRC as a launching state? This brings analysis to the third element meriting scrutiny presently: that of registration of space objects.

### **5. Registration: the Registration Convention and Article VIII of the Outer Space Treaty**

In terms of registration, Article VIII of the Outer Space Treaty merely links the retention of jurisdiction over a space object to its registration, as well as confirming the retention of ownership rights over such a space object while in outer space.<sup>35)</sup>

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Law (1997), 464.

In the early seventies, especially after the conclusion of the Liability Convention in 1972, however, it was quickly realised that it was one thing to have a liability regime in place for dealing with the damage caused by space objects, but that it was quite another thing to establish the causal link between an event of damage and (a) particular launching state(s), for the purpose of allowing actual solution by means of a claim for compensation. Thus, it was internationally agreed upon that a follow-up Convention would be necessary to try and support the solution of that problem by elaborating on a system of (international) registration.<sup>36)</sup>

It is in the Registration Convention then that the proper duty to register was created, in order to increase the chances of identifying a space object and its launching state for the purpose of liability claims. This was done under a two-pronged approach.

Firstly, the launching state (in case there is only one) of a space object shall register that space object in a national registry, which it is obliged to establish and maintain.<sup>37)</sup> A 'launching State' under the Registration Convention is defined in exactly the same terms as under the Liability Convention; see Art. I(a), Registration Convention. In case there would be more than one state qualifying as launching state for a specific space object, those launching states should jointly determine which one of them will actually register the space object nationally.<sup>38)</sup>

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35) Art. VIII, Outer Space Treaty, provides in relevant part: "A State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body. Ownership of objects launched into outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a celestial body or by their return to the Earth".

36) There was already a UN Resolution calling for registration of space objects, but this was essentially on a voluntary basis, as Resolutions of the General Assembly are not by definition binding legal documents; UN General Assembly Resolution 1721(XVI), of 20 December 1961, part B; General Assembly - Sixteenth Session, Resolutions adopted on reports of the First Committee, at 6. See e.g. Y. Lee, Registration of space objects: ESA member states' practice, 22 Space Policy (2006), 42-3.

37) See Art. II(1), Registration Convention.

Secondly, the state of registry is then to inform the UN Secretary-General not only of the existence of the national registry as such<sup>39)</sup>, but also of a number of key parameters of the space object launched for the purpose of inclusion into an international registry which the UN Secretary-General maintains – a task delegated to the UN Office for Outer Space Affairs.<sup>40)</sup> Those key parameters notably refer to: "(a) Name of launching State or States; (b) An appropriate designator of the space object or its registration number; (c) Date and territory or location of launch; (d) Basic orbital parameters, including: (i) Nodal period; (ii) Inclination; (iii) Apogee; (iv) Perigee; (e) General function of the space object".<sup>41)</sup> Further details may be offered at liberty<sup>42)</sup>, though states are strongly stimulated to inform the UN Secretary-General at least when a registered space object is no longer in earth orbit.<sup>43)</sup>

The PRC being the launching state on all possible counts of both the weather satellite and the killer vehicle, there would seem to be a clear-cut duty resting upon the PRC to have registered both – though in this case, obviously the registration of the killer vehicle would be the most important issue.

The problem however is that the Registration Convention offers two major flaws allowing states to considerably compromise any such obligations. Firstly, according to the letter if not the spirit of the Convention, the obligation for a state to provide information to the UN Secretary-General under Article IV(1) is confined to those space objects registered in its national register, in accordance with the relevant obligations under Article II. In other words, whilst non-registration of the killer vehicle in the Chinese national register (even if considered justified by the PRC with a view to its national security) would violate the PRC's obligations under Article II, it would at the same time under a narrow and legalistic interpretation excuse it from the duty to inform the UN

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38) See Art. II(2), Registration Convention.

39) Under Art. II(1), Registration Convention.

40) See Artt. IV, resp. III, Registration Convention.

41) Art. IV(1), Registration Convention.

42) Cf. Art. IV(2), Registration Convention.

43) See Art. IV(3), Registration Convention. .

Secretary-General for the purpose of the UN register.

Secondly and more importantly still, the Convention provides that the provision of such information shall be undertaken "as soon as practicable". Barring bona fide-arguments to the contrary, the PRC could defend any non-registration of the killer vehicle on the basis of it not being practicable at all from a security-perspective to provide the relevant information until after the event (which of course harks back to the duties established under Article IX of the Outer Space Treaty).

Perhaps on an abstract basis a conclusion of lack of bona fide application of Article IV(1) of the Registration Convention to defend non-registration is well-defendable - it certainly is against the spirit of the Registration Convention. However, the most unfortunate aspect here is precisely that the practice of non-registration of military space objects -and even in some case of non-military space objects - is rather widespread, and moreover growing as well.<sup>44)</sup> While it may not perhaps (yet) be evaluated as a rule of customary law that states are entitled to escape any obligation of registration under the Registration Convention, effectively superseding the black-letter law of the latter, in case of a military space object, it would be still be rather difficult to find even legally-tenable fault with the PRC's actions (or, in this case, non-action) if that is more or less standard practice.

At the end of the day, any international lawyer is caught here in the impossible splits of on the one hand not wishing to deny reality and on the other hand not simply condoning it if it is in violation of, at the very least, the spirit of the whole Registration Convention. The proper 'solution' here would then be to consider the general duty which would have rested upon the PRC to register the killer vehicle and inform the world of its "general function", in conformity with Article IV(1) sub (e) of the Registration

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44) Cf. e.g. H.P. van Fenema, The Registration Convention, in Proceedings United Nations/International Institute of Air and Space Law Workshop on Capacity Building in Space Law (2003), ST/SPACE/14, 36-7; S. Hobe, Current and Future Development of International Space Law, in Disseminating and Developing International and National Space Law: the Latin America and Caribbean Perspective (2005), ST/SPACE/28, 10; Y. Lee, Registration of space objects: ESA member states' practice, 22 Space Policy (2006), 43-4



Convention, as applicable not only on its own merits – which would allow the difficult discussion on what "practicable" means or should mean, and on the bona fide quality of any such argument, back on the table – but especially in view of the risk that this particular space activity might cause to other states' space activities and other interests, that is: in conjunction with Article IX of the Outer Space Treaty as discussed before.

Pragmatically speaking finally, the above should also be made to spur further developments in the context of the UNCommittee on the Peaceful Uses of Outer Space to tighten the obligations under the Registration Convention and to try and eradicate or at least shrink the loopholes.

## **6. Concluding remarks**

It may be clear, that the Chinese ASAT test in the wake of the political outcry also brought some legal issues relevant to the military use of outer space (back) to the fore – which first of all confirms that international space law indeed still has a role to play; perhaps not as the only or main determining factor for states in deciding upon their behaviour in military matters, but certainly as one of those factors. From such a perspective, the initial silence of the PRC following the actual test could even be interpreted as partially resulting from a feeling of uncertainty whether its behaviour would comply with the standards of international law –the contrast with a certain neighbouring country being explicitly and openly defiant of certain international legal obligations (in this case in the field of nuclear military issues) is at the very least an interesting one.

Thus, the Chinese ASAT test brings back to the table once more the relevance of the contribution international space law can continue to make to international peace and security. Whilst the test cannot be considered to constitute a direct threat to international peace and security so as to invoke relevant legal principles and consequences in terms of the UN Charter for example, it highlights the importance of such clauses in international space law as requiring international cooperation and consultation, due regard for the interests of all other countries both on earth and in outer space, and the further

development of general regimes of registration and space debris-prevention.

From that perspective, the PRC violated international outer space law not so much by the test itself but by the accompanying lack of information, consultation and due regard for other states', and indeed mankind's, interests. The freedom inherent in the qualification of outer space as a 'global commons', and indeed of its exploration and use as the 'province of all mankind', cannot do without such a level of transparency about target practising, if that freedom is not to result in the often-dreaded 'tragedy of the commons', that no one feels responsible but everyone feels entitled.

This should be expressed clearly in the appropriate fora, even if it may now perhaps be a little late for such reactions to be very effective politically speaking as far as the Chinese ASAT test itself is concerned. Furthermore, while sadly, so far, target practising in a global commons as such is not prohibited, this event may now perhaps be feasibly subjected to discussions on future bans thereof. In a time when the world witnesses a, perhaps haphazard and unevenly distributed but generally visible, move towards the acceptance of a prohibition on nuclear tests altogether, a move towards a ban on testing of any kind of weapon at least in the orbits close to earth - let us say within the geostationary orbit - may not be a stillborn child. At the very least, it seems worth the while also of South-Korean space lawyers, following Professor Hong's tracks, to devote time and attention to furthering such causes in the interest of all mankind!

## Abstract

When the People's Republic of China destroyed one of its own defunct meteorological satellites, the Fengyun-1C, at an altitude of some 865 km above the earth's surface, the PRC was accused of initiating, or at the very least risking an(other) arms race in outer space also. The test also gave rise to a few legal questions as to the permissibility of this test, and the broader permissibility of using space for military and other weapon-touting activities,

Whilst the test cannot be considered to constitute a direct threat to international peace and security so as to invoke relevant legal principles and consequences in terms of the UN Charter for example, it highlights the importance of such clauses in international space law as requiring international cooperation and consultation, due regard for the interests of all other countries both on earth and in outer space, and the further development of general regimes of registration and space debris-prevention.

From that perspective, the PRC violated international outer space law not so much by the test itself but by the accompanying lack of information, consultation and due regard for other states', and indeed mankind's, interests.

Keyword : military use of outer space, outer space treaty, missile, UN charter, China