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THE RELATIONSHIP OF INTERNATIONAL HUMANITARIAN LAW AND TERRITORIAL SOVEREIGNTY WITH THE LEGAL REGULATION OF OUTER SPACE

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The Applicability of the United Nations Space Treaties during Armed Conflict

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Abstract

The principal United Nations (and some other) Space Treaties were concluded during the Cold War. The two space powers at the time, the United States and the Soviet Union, were also the leading protagonists in this geopolitical conflict. They had both realised very early on the strategic significance of outer space and were engaged in a fierce rivalry, with the result that much of the space-related technology developed during the 1960s-1980s (and beyond) was driven first and foremost by military and security considerations. Notwithstanding the context within which they were negotiated, however, the Space Treaties emphasise the peaceful use and exploration of outer space, and codify a number of fundamental principles that may have the effect of limiting any possibility of armed conflict involving space. However, it is unclear whether, and to what extent, the treaties would actually apply during times of armed conflict. Whilst, from a normative perspective, it is preferable that they should apply in such circumstances, this is not expressly provided for in the treaties themselves. This article will examine the relevant principles of general international law relating to the obligation of States Parties to comply with treaties during armed conflict and then proceed to apply those principles to critically analyse the express provisions of the Space Treaties, in order to determine the extent, if at all, of their applicability.

I. Specifying ‘Peaceful Purposes’ during a (Cold) ‘War’

On 4 October 1957, the world’s first artificial satellite was launched – a Soviet space object called Sputnik I. It subsequently orbited the Earth over 1,400 times during the following three month period. This was, of course, a highly significant moment, heralding the dawn of the space age, the space race, and the legal regulation of the exploration and use of outer space. Since that time, the impact of international law as it relates to outer space has facilitated significant improvements in the standard of living for all humanity, for
example through satellite telecommunications, global positioning systems, remote sensing technology for weather forecasting and disaster management, and television broadcast from satellites. Ever newer technologies will continue to expand the horizons of what space might be able to offer. In this regard, space law has played a positive role, by allowing for – and not unduly restricting – the development of space-related technology and its commercial exploitation by international organisations, States and their private entities. The prospects for the future offer both tremendous opportunities and challenges for humankind, and law will undoubtedly continue to play a crucial role in this regard.

At the same time, however, the existing legal regime has not prevented the development of military technology capable of utilising outer space for the conduct of armed conflict. Whilst there are some restrictions specified in the various United Nations Space Treaties on aspects relating to military activities, these were agreed in relatively general terms and have been subject to divergent interpretations as to exactly what they did (and did not) prohibit. This is not entirely surprising, since the development of space-related technology was, at least initially, inextricably related to military strength and positioning – both in reality and to influence the perception of others. It is no coincidence that the space race emerged at the height of the Cold War, when both the United States and the Soviet Union strove to flex their respective technological and geopolitical ‘muscles’. The early stages of human space activity and space law coincided with a period of considerable tension, with the possibility of large scale and potentially highly destructive military conflict between the (space) super-powers of the time always lurking in the background.

Despite the tremendous prospects for humanity that it would open up, the successful launch of Sputnik this also generated unease in the West, since the technology used was treated as similar to that for ballistic missiles.\(^1\) To a large degree, this thinking still resonates, underpinning to a large degree the restrictions in relation to the transfer of such technology, as reflected in various national regulatory systems such as the United States ITAR regime.\(^2\) Within this highly sensitive geopolitical context, it was crucial from the outset that efforts were made by the international community to regulate this new frontier, in order to avoid both a build-up of weapons (in more modern parlance,


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referred to as the ‘Prevention of an Arms Race in Outer Space’ (PAROS), and the outbreak of an armed conflict in space. It was important that the international community reacted appropriately, as it walked a fine balancing line between the wishes of these two superpowers on the one hand, and a general sense of uncertainty as to where exactly these military-driven achievements might ultimately lead on the other.

It was not a coincidence, therefore, that, shortly after the Sputnik I launch, the United Nations established a new committee to take primary responsibility for the development and codification of the fundamental rules relating to the use and exploration of outer space with the name of United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS). An ad hoc Committee on the Peaceful Uses of Outer Space, with 18 initial member states, was established in 1958 by the United Nations General Assembly, which subsequently converted it into a permanent body in 1959. UNCOPUOS is now the principal multilateral body involved in the development of international space law.

The conventional obligations and restrictions that were eventually agreed and codified in the space treaties through the UNCOPUOS process addressed, in part, specific military and weapons-related aspects of space activities. However, they were neither entirely clear nor sufficiently comprehensive to meet all of these challenges. This suited the priorities of the two space powers of the time who, notwithstanding their ideological differences on many issues,
both realised that they were, for all practical purposes, the only States who would be impacted by such restrictions, at least at that point of time. Since those early days, and despite (or perhaps because of) the growing number of space participants, the situation has become significantly more complex, with potentially drastic and catastrophic consequences. Just as the major space-faring nations have already for decades been undertaking what might be termed ‘passive’ military activities in that domain, outer space is increasingly now being used as part of active engagement in the conduct of armed conflict.\(^6\) Not only is information gathered from outer space – through, for example, the use of remote satellite technology and communications satellites – used to plan military engagement on Earth, but space assets are now used to direct military activity, and represent an integral part of the military hardware of the major powers. It is not overstating the risks to conclude that it is now within the realms of reality that outer space may itself become an emerging theatre of warfare. More recently, several newspapers in the United States have published various stories asserting that outer space is no more pristine sanctuary, as war in space is closer than ever, though the general public remains largely unaware.\(^7\)

Yet, somewhat ironically – though not surprisingly – outer space, at the time exclusively the domain of two protagonists engaged in a (Cold) ‘War’, was declared as to be used for peaceful purposes.\(^8\) The important treaty

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\(^{8}\) 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the ‘Outer Space
instruments that were agreed – none of which would have come into existence had they been vigorously opposed at the time by either the United States or the Soviet Union – stressed the peaceful aspects of the exploration and use of outer space, simultaneously with a period where the real possibility of armed conflict on Earth was ever present.

II. Divergence between Treaty Requirements and Practice?

Whilst most space scholars would subsequently interpret the relevant treaty provisions – specifically the peaceful purposes doctrine – as prohibiting military space activities in outer space, this was, as noted, not followed by the practice of those States that actually had space capability. Indeed, with the benefit of hindsight, it is now clear that space was utilised for some form of military activities almost right from the commencement of the space age.

In this regard, as the authors have previously suggested, if one were to adopt a hard-line pragmatic (and perhaps non-legal) view of the post treaty drafting process, one could suggest that the once popular ‘non-military v. non-aggressive’ debate regarding the meaning of ‘peaceful purposes’ ceased to have practical relevance, even though it represents an extremely important issue of interpretation of the principles set out in the Outer Space Treaty. Instead, the focus of the discussion has, as noted, shifted to the risks associated with the potential weaponisation of space, the possibility of the use of force, and their implications for international relations, particularly between the major powers. The subsequent practice of States in their application of the Outer Space Treaty (and other UN Space Treaties) also gives rise to questions as to how the provision should be interpreted in accordance with the customary international law principles enunciated in article 31 of the Vienna Convention of the Law of Treaties.

These developments also raise another important threshold question – given the practice of States following the conclusion of the space treaties, particu-

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larly in the context of the use of space in the conduct of armed conflicts notwithstanding the terms of, in particular, the Outer Space Treaty, what can be concluded about the applicability of those instruments during such armed conflicts? Much has been written about the (possible) application of the current international laws of war (jus in bello) to the use of outer space, but the question raised in this article, which has not been considered in any detail in previous scholarship, relates to a different perspective – to what extent, and how, do the United Nations Space Treaties themselves continue to apply during an armed conflict?

This article therefore now examines the relevant principles of general international law relating to the obligations of States Parties to comply with treaties during armed conflict, and then seeks to apply those principles to analyze the express provisions of the UN Space Treaties, in order to determine the scope of their applicability.

III. General International Law and the Applicability of Treaties during Warfare: A Case-by-Case Analysis?

As a general observation, most conventional rules under international law – with the obvious exception of the jus in bello instruments (which are, of course, specifically directed to the conduct of warfare), and also the human rights treaties do not expressly extend to situations of armed conflict. Even the jus ad bellum, which are codified in the United Nations Charter and therefore expressly apply to activities in outer space, relate stricto sensu to action prior to and perhaps leading to the commencement of an armed conflict. There is no general or specific rule of international law that assumes that treaties will continue to operate during times of hostilities, and there is significant disagreement among commentators as to what the correct position may be. The VCLT is not particularly illuminative in this regard. Article 73 of

12 In Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory (Advisory Opinion) [2004] ICJ Rep 136, the International Court of Justice (par. 106) considered that ‘the protection offered by human rights conventions does not cease in case of armed conflict’. This repeats the view of expressed by the Court in Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion) [1996] ICJ Rep 226, paras. 25.
14 See Outer Space Treaty, article III.
15 See, for example, Silja Vöneky, ‘Peacetime Environmental Law as a Basis of State Responsibility for Environmental Damage Caused by War’, in Jay E. Austin and Carl E. Bruch (eds), The Environmental Consequences of War: Legal, Economic and Scientific Perspectives (2000), 190, 193-4 and the corresponding footnotes.
that instrument simply states that: ‘[t]he provisions of the present Convention shall not prejudge any question that may arise in regard to a treaty from […] the outbreak of hostilities between States’.16

Regarding the possible applicability of multilateral environmental treaties (METs) during wartime, for example, there is ‘insufficient uniformity of opinion’ among States on the issue.17 Previously, it had traditionally been assumed that all treaties between the belligerents in a war terminated ipso facto upon the outbreak of hostilities; however, it is now more generally thought that the question will depend on the type of treaty itself.18 In 1993, a panel of experts was convened under the auspices of the International Committee of the Red Cross (ICRC) to draft ‘Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict’. Article 5 of that document provided that: ‘international environmental agreements and relevant rules of customary law may continue to be applicable in times of armed conflict to the extent that they are not inconsistent with the applicable law of armed conflict’.19

In the end, whether a specific MET applies during periods of armed conflict has generally been determined by reference to the express terms of the treaty itself. There have been several suggested methodologies as to how this question might be determined in practice. One well-known international law commentator has classified the applicability (or otherwise) of different MET treaties in times of armed conflict in the following ways:

a. Treaties that expressly exclude their applicability in relation to damage that occurs as a result of war or armed conflict;

b. Treaties that allow for total or partial suspension at the instigation of one of the Parties;

c. Treaties that require the consequences of hostilities to influence subsequent decisions under the relevant treaty;

16 VCLT, article 73.


18 Vöneky, supra note 15, 197 and the corresponding footnotes.

d. Treaties that expressly exclude their applicability to any military activities, even during times of peace;
e. Treaties that expressly apply to specific activities associated with the conduct of hostilities; or
f. Treaties that expressly or impliedly apply at all times.20

In more general terms, another commentator asserts that State practice and legal doctrine commonly result in the following five categories of treaties continuing to bind States Parties even during times of international armed conflict:21

a. Treaties expressly providing for continuance during war;
b. Treaties that are compatible with the maintenance of war;
c. Treaties creating an international regime or status;
d. Human rights treaties; and
e. *jus cogens* rules and obligations *erga omnes*.22

When presented with the opportunity to do so, the International Court of Justice has chosen not to ‘categorize’ treaties in terms of their possible applicability to times of armed conflict, but has instead adopted a different approach. In the *Legality of the Threat or Use of Nuclear Weapons* Advisory

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22 This is not an entirely accurate statement, since a *jus cogens* rule or *erga omnes* obligation is a principle of customary international law, although it may also be included as a term(s) of a treaty. The existence of identical conventional and customary rules was clearly recognized by the International Court of Justice in *North Sea Continental Shelf Cases (Federal Republic of Germany v. Denmark and Federal Republic of Germany v. The Netherlands)* (Judgment) [1969] ICJ Rep 3, par. 71: See also *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)* (Merits) (Judgment) [1986] ICJ Rep 14, par. 177-8. Article 53 of the VCLT defines a ‘peremptory norm’, and this is often used as a definition of a *jus cogens* rule. An obligation *erga omnes* has been described by the International Court of Justice as an obligation owed by a State ‘towards the international community as a whole … the concern of all States … [and that] all States can be held to have a legal interest in their protection’: *Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (Judgment) [1970] ICJ Rep 3, par. 33. The International Court of Justice has also made reference to the issue of *erga omnes* obligations in the context of environmental concerns: See *Nuclear Tests Case (Australia v. France)* (Judgment) [1974] ICJ Rep 253, par. 50; *Nuclear Tests Case (New Zealand v. France)* (Judgment) [1974] ICJ Rep 457, par. 52. This article is concerned with the applicability of the outer space treaties during armed conflict. Relevant provisions of customary international law will apply during armed conflict – these will, once again, typically relate to the *jus in bello* and a number of human rights standards – although there may be some customary principles relating specifically to outer space that might also be applicable.
Opinion,23 the Court heard conflicting arguments as to whether certain *jus in bello* treaties24 and METs were applicable in times of armed conflict in general, and to the use of nuclear weapons in particular. In response, the Court somewhat side-stepped the differing viewpoints, and instead concluded that: ‘the issue is not whether the treaties relating to the protection of the environment are or are not applicable during an armed conflict, but rather whether the obligations stemming from these treaties were intended to be obligations of total restraint during military conflict’.25 Citing Principle 24 of the Rio Declaration on Environment and Development,26 the Court continued: ‘[t]he Court does not consider that the treaties in question could have intended to deprive a State of the exercise of its right of self-defence under international law because of [...] obligations [that they specified]’.27

The International Law Commission (ILC)28 has also looked at the ‘Effects of Armed Conflicts on Treaties’. In his first report on the effects of armed conflicts on treaties, the then ILC Special Rapporteur, whilst acknowledging that there was no consensus among States on the specific legal question, suggested that the comments of the International Court of Justice: ‘provide general and indirect support for the use of a presumption that environmental [and other] treaties apply in case of armed conflict’.29

The ILC subsequently produced a set of draft articles on the topic,30 which was submitted to, and noted by the United Nations General Assembly in

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24 These included the 1976 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques 1108 U.N.T.S. 151 (which does, in article II, make express reference to outer space) and the 1977 Protocol I Additional to the Geneva Conventions of August 12, 1949, and relating to the Protection of Victims of International Armed Conflicts, 1125 U.N.T.S. 3.
27 *Ibid*.
28 The ILC was established following the adoption by the United Nations General Assembly of Resolution 174 (II) (21 November 1947), which approved the Statute of the International Law Commission (ILC Statute). Article 1(1) of the ILC Statute provides that the objects of the ILC are the ‘promotion of the progressive development of international law and its codification.’
These draft articles, whilst not necessarily reflecting the current legal position, shed further light on the issue, reversing the earlier presumption about the non-applicability of treaties during hostilities. The ILC Draft Articles specify a ‘General Principle’ that: ‘The existence of an armed conflict does not ipso facto terminate or suspend the operation of treaties: (a) as between States parties to the conflict; (b) as between a State party to the conflict and a State that is not’.32

The ILC Draft Articles then proceed to adopt a (somewhat unusual) ‘subject matter’ approach to the issue, by setting out: ‘[a]n indicative list of treaties [specified in the annex to the ILC Draft Articles] the subject-matter of which involves an implication that they continue in operation, in whole or in part, during armed conflict […]’.33

Whilst some of these subject matter categories of treaties are obvious in their applicability to armed conflict, others are drafted in broader and more general terms and could certainly be interpreted to include (aspects of) the space treaties. However, on the assumption that this approach is a reflection of the correct current legal position on the applicability of treaties during armed conflict – an issue regarding which the authors have some reservations – it does not necessarily progress matters much further in the absence of a careful analysis of the relevant treaty on a case-by-case basis. It appears that the ‘implication’ in respect of such treaties, as indicated in Article 7 of the ILC Draft Articles, is not determinative of the issue, but rather is consistent with the (rebuttable) presumption of applicability (at least for the treaties covered in the list) in periods of armed conflict.

After an historical and critical analysis of the provisions of the ILC Draft Articles, Lucius Caflisch, the Chairman of the ILC and the Special Rapporteur for this topic, deduces that: ‘[w]hile some of the Draft’s provisions reflect existing law, other rules have the character of lex ferenda’.34

As noted above, the ILC recommended its Draft Articles to the United Nations General Assembly for its adoption and, at a later stage, consideration in order to elaborate an international treaty on the basis of these Articles. The General Assembly deliberated on the ILC proposal and adopted a Resolution (A/RES/66/99) on 9 December 2011 and commended the ILC Draft Articles to the attention of Governments.35 There has been a mixed reaction from States. Generally agreeing with the importance of the ILC Draft Articles, some States believed that they were broad enough to ‘cover situations in

32 ILC Draft Articles, article 3.
33 ILC Draft Articles, article 7 (emphasis added).
which only one of the States parties to a treaty was a party to an armed conflict’ and others were concerned about the ambiguity in the definition of ‘armed conflict’, which is based on the Tadic decision.36 Similarly, there were concerns about the inclusion of the indicative list in article 7 of the ILC Draft Articles. It may be noted that the United States has expressed apprehension about the ILC Draft Articles, even before their adoption by the ILC, particularly with respect to the definition of ‘armed conflict’ and the article on self-defence that, in its opinion: ‘might be misread to suggest that a state acting in self-defense has a general right to suspend treaty provisions that may affect its exercise of self-defense’.37

Though the United Nations General Assembly, at its sixty-ninth session in 2014, adopted again its Resolution on ‘Effects of armed conflicts on treaties,’38 without a vote, there remain several differences of opinion on the substantive issues of the ILC Draft Articles and as well as the future possibility of their transformation into an international treaty. However, one must not forget that several States agree with some of the key provisions of the ILC Draft Articles, particularly those that reflect lex lata. In its 2014 Resolution, the General Assembly has invited ‘Governments to submit written comments on any future action regarding the articles’ and decided to include this item in the agenda of its seventy-second session in 2017.39 Thus, because of the importance of this subject on international relations, the international community remains active in search for clear rules of international law determining the precise effects of armed conflicts on treaties.

In one sense, it might be asserted that the conduct of war is opposite of treaty relations, which are carried out to establish peace and cordial dealings for mutual benefit. Therefore, traditionally, it was generally accepted that war ipso facto (automatically) terminates (or suspends) all treaties between the belligerent States. However, since outlawing war, particularly under the Kellogg-Briand


39 Id.
Pact of 1928 and under article 2(4) of the UN Charter, the achievement and maintenance of stability of peaceful relations (through treaty negotiations, if and when possible) became of paramount importance to the international community. In this regard, Lucius Caflisch accurately asserts that: ‘[t]he days of “war ends everything” are over and have been replaced by “armed conflict does not end everything”’.

While the law on the subject is in transition and international debate continues, we believe that the final question regarding the (extent of any) applicability of a specific treaty can be determined by a close examination of the precise terms of that particular instrument. Accordingly, following on from this overview of the relevant general international law principles, this article now moves on to analyse of the terms the express provisions of the UN Space Treaties to determine whether, and to what extent, they may be applicable during armed conflict. However, one must be cognizant of the fact that it is very complex to determine what applies and what does not, especially when the law on the matter is still not fully developed.

IV. Applying the General International Law Principles to the United Nations Space Treaties

Applying the provisions of articles 3 and 4 of the ILC Draft Articles, which appear to reflect lex lata, to the UN Space Treaties, one can in principle say that; (a) none of these legal instruments contains provisions on their operation in situations of armed conflict; and (b) their complete (in toto) operation should not be considered ipso facto terminated or suspended between States Parties to the conflict or between a State Party to the conflict and a State that is not. However, in order to fully understand the status of UN Space Treaties, one should carry out a case-by-case analysis of each of them, taking into consideration its nature, terms and subject-matter.

Pronto correctly states that ‘[o]nce it is established that an armed conflict has affected a treaty, the question arises as to the extent of such effect.’ The conflict might affect the whole treaty or only part(s) of it. Thus there could be situations that would allow the termination or suspension of parts of these treaties. Article 11 of the ILC Draft Articles, which is based verbatim on the text of article 44 of the VCLT, allows for the ‘separability’ of treaty

40 The text of the Pact (also known as the Pact of Paris), <www.yale.edu/lawweb/avalon/imt/kbpact.htm> (accessed 12 September 2015).
41 Lucius Caflisch, supra note 34, 39.
provisions as a consequence of an armed conflict, so as to allow for the termination or suspension of the operation of specific parts of a treaty.\textsuperscript{43}

There is no provision in the 1967 Outer Space Treaty relating to its operation in a situation of armed conflict. Therefore, there is a presumption (though rebuttable) of its continuous applicability in periods of armed conflict, especially because the Treaty is a multilateral law-making instrument whose objective (subject-matter) is to create a general and broad legal regime for outer space, where exploration and use must be carried out for peaceful purposes and in the interest and benefit of all nations. Some of its provisions, especially those in articles II (non-appropriation), VI (international responsibility) and VII (international liability), are presumed certainly to continue to remain operative. However, one may make a case for termination or suspension of obligations related to other provisions, like articles IV (military uses), V (assistance to astronauts), VIII (registration of space objects), and X (opportunity to observe the flight of space objects). Of particular importance are the obligations regarding the peaceful use of outer space, specifically those under article IV. This is also so because of the application of a universally accepted principle of international law according to which, during an armed conflict, ‘political treaties (treaties of friendship, of alliance and of military cooperation) would lapse’\textsuperscript{44} between the belligerent States.

It is interesting to note that the rules of international law related to the determination of precise effects of armed conflicts on treaties, including those that are contained in the ILC Draft Articles, need to be examined carefully with respect to their application to the UN Space Treaties, because of the unique nature and extent of space operations. For example, ‘armed conflict’ in the context of space operations might not involve the use of ‘armed force’ in the traditional sense; i.e. perhaps the dazzling or blinding of satellites, harmful interference with a satellite’s radio frequency caused by jamming,\textsuperscript{45} or damaging the functioning of a satellite with a cyber-attack might not be

\textsuperscript{43} Article 11 of the ILC Draft Articles allows the termination, withdrawal from or suspension of the operation of parts of a treaty as a consequence of an armed conflict where:
(a) The treaty contains clauses that are separable from the remainder of the treaty with regard to their application;
(b) It appears from the treaty or is otherwise established that acceptance of those clauses was not an essential basis of the consent of the other Party or Parties to be bound by the treaty as a whole; and
(c) Continued performance of the remainder of the treaty would not be unjust.

\textsuperscript{44} Lucius Caflisch, \textit{supra} note 34, 39.

\textsuperscript{45} In this regard, it should be noted that, according to the United States Space Policy, ‘Purposeful interference with [American] space systems, including supporting infrastructure, will be considered an infringement of a nation’s rights’: Office of the President of the United States National Space Policy of the United States of America, 28 June 2010, 3.
fully compatible with the traditional meaning of ‘armed force’, but certainly could give rise to serious conflicts.

However, during an armed conflict in space, the relevant rules of international humanitarian law (IHL) would continue to apply, as stated by the International Court of Justice:

“With regard to international humanitarian law, the Court recalls that in its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons it stated that ‘a great many rules of humanitarian law applicable in armed conflict are so fundamental to the respect of the human person and “elementary considerations of humanity” [...]’, that they are ‘to be observed by all States whether or not they have ratified the conventions that contain them, because they constitute intransgressible principles of international customary law’ (I. C. J. Reports 1996 (I), p. 257, para. 79). In the Court’s view, these rules incorporate obligations which are essentially of an erga omnes character.”

Of particular importance in this regard will be the continuation of the IHL principles related to necessity, proportionality, collateral damage, and distinction. The application of these principles during an armed conflict in space needs to be examined carefully because of the unique character of space operations. For example, the increasing use of dual purpose satellites for war would make it difficult to clearly identify the civilian or military status of a satellite that is being used for both purposes. More importantly, the same satellite might be used by belligerent and non-combatant domestic and foreign users. Use of kinetic force against an enemy satellite might create unexpectedly large amounts of space debris that might damage space assets of non-combatants, pose risks for space operations of all space-faring nations for a long time, damage the space environment, and deny the availability of services that were being provided by the destroyed satellite to the civilian population on the Earth.

49 According to Article 35(3) of Additional Protocol I to the Geneva Convention of 12 August 1949, adopted at Geneva on 8 June 1977, 1125 UNTS 17512, the Parties to any armed conflict are ‘prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment.’ In addition, article 55 of the Protocol specifies that ‘[c]are shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage.’
Therefore, there may be incompatibility between the rules of IHL, which is \textit{lex specialis}, and the principles of law of outer space, which is also \textit{lex specialis}. Normally, inconsistencies between specific law and general law are resolved through the application of doctrine of \textit{lex specialis derogat generali}. Nevertheless, how should we resolve incompatibility between two rules when both are \textit{lex specialis}? This matter, according to Yael Ronen, ‘is entirely context-dependent.’

The 1968 \textit{Rescue and Return Agreement} contains provisions relating to the search for, rescue of, rendering necessary assistance to, and safe and prompt return of astronauts in distress to representatives of the launching (authority) State/ It also focuses on the search for and return of space objects to the launching authority. Though astronauts are to be regarded as ‘envoys of mankind’ under article V of the Outer Space Treaty, the nature and subject matter of the Rescue and Return Agreement are such that it is to be regarded as suspended during an armed conflict between the warring States. The belligerent States, according to Michael Schmitt: “may capture or destroy the enemy’s space objects and target or capture astronauts as combatants. Captured combatant astronauts would be prisons of war, held until the ‘cessation of active hostilities’.”

The 1972 \textit{Liability Convention} elaborates the provisions of article VII of the Outer Space Treaty. It creates absolute liability to pay compensation for damage caused on the surface of the Earth or to aircraft in flight by the space object of launching State(s), with such liability is based on fault (negligence) if damage is caused elsewhere. The focus of the Convention is to determine liability of a launching State(s) for damage (injury, death or destruction) and to pay compensation to third parties. The definition of a ‘launching State’ includes; (i) a State which launches or procures the launching of a space object; and (ii) a State from whose territory or facility a space object is

51 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (the ‘Rescue and Return Agreement’), adopted by the General Assembly in its resolution 2345 (XXII), opened for signature on 22 April 1968, entered into force on 3 December 1968. There are 94 ratifications, 24 signatures, and 2 acceptance of rights and obligations (as of 8 April 2015).
53 1972 Convention on International Liability for Damage Caused by Space Objects (the ‘Liability Convention’), adopted by the General Assembly in its resolution 2777 (XXVI), opened for signature on 29 March 1972, entered into force on 1 September 1972. There are 92 ratifications, 21 signatures, and 3 acceptances of rights and obligations (as of 8 April 2015).
54 Liability Convention, articles II and III.
launched.\textsuperscript{55} Therefore, depending on the circumstances, there could be more than one launching State of a particular space object that causes damage. Moreover, damage could be caused during peace time, or during conflict, by a military, civil or commercial satellite. During an armed conflict, the Liability Convention would not be automatically suspended\textsuperscript{56} between; (i) a State Party to the conflict and a State that is not; and (ii) between States Parties to the conflict, unless declared terminated or suspended by a State Party with respect to its application to other State Party to the conflict. However, Michael Schmitt is of the view that: ‘[b]elligerents generally incur no liability for lawful attacks on military objects; in other words, the convention’s liability provisions are suspended as between belligerents’.\textsuperscript{57}

Outside these parameters (i.e. attacks on non-military objects and damage caused by illegal war activities), the Convention should be presumed to remain applicable between belligerents, unless declared otherwise.

The 1975 Registration Convention\textsuperscript{58} has been elaborated on the basis of article VIII of the Outer Space Treaty. The main purpose of the Registration Convention is to achieve transparency in space activities by establishing an open international mandatory system of registration of space objects within the United Nations. States Parties to the Convention are required to furnish information about all (military, civil or commercial) their space objects to the United Nations, to be entered into the International Register of Space Objects. However, it is logical that belligerent States would not like to disclose the location of their military assets and thus cannot be realistically expected to register their space objects during an armed conflict. Thus, it is believed that the Registration Convention (at least its article IV) would be presumed to be suspended during the period of an armed conflict.

The 1979 Moon Agreement\textsuperscript{59} is the last UN Space Treaty, and creates somewhat detailed provisions specifically for the exploration, and consequent exploitation, of natural resources of the Moon and other celestial bodies (including asteroids). So far it has attracted only 16 ratifications, mainly because no such activity has yet been undertaken seriously by any State or the private sector. The Agreement is a multilateral law-making treaty and contains no

\textsuperscript{55} Liability Convention, article I(c).
\textsuperscript{56} Dana J. Johnson, supra note 46, 56.
\textsuperscript{57} Michael N. Schmitt, supra note 48, 110.
\textsuperscript{58} 1975 Convention on Registration of Objects Launched into Outer Space (the ‘Registration Convention’), adopted by the General Assembly in its resolution 3235 (XXIX), opened for signature on 14 January 1975, entered into force on 15 September 1976. There are 62 ratifications, 4 signatures, and 3 acceptances of rights and obligations (as of 8 April 2015).
\textsuperscript{59} 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the ‘Moon Agreement’), adopted by the General Assembly in its resolution 34/68, opened for signature on 18 December 1979, entered into force on 11 July 1984. There are 16 ratifications and 4 signatures (as of 8 April 2015).
provision relating to its operation during an armed conflict in outer space or on the Moon or any celestial body. Therefore, the presumption (though rebuttable) should be in favour of its applicability in a period of armed conflict. However, its provisions in article 3 (i.e. prohibition of any threat or use of force, placement of any kinds of weapons, establishment of military bases and conduct of military manoeuvres) should be considered suspended during the period of armed conflict for the same reasons as those relate to the suspension of article IV of the Outer Space Treaty, as discussed above.

V. Concluding Remarks

In this introductory article, we have attempted to highlight the importance of this subject, which would only increase as the likelihood of conflict in space becomes greater. This is certainly not intended by the authors to be a detailed analysis of the law applicable to the effects of armed conflict on the UN Space Treaties, but rather is the initiation of what we regard as necessary future research and debate within the international space law community.

We believe that the rules of general international law related to the determination of effects of armed conflicts on treaties, including those that are contained in the ILC Draft Articles, would also apply to the UN Space Treaties. These rules in general are still in infancy, though some of them have been well recognised.

The authors conclude that, although the space treaties appear to apply during armed conflict, the principles may not be specific enough to provide appropriate regulation – nor deterrence – for the increasingly diverse ways in which outer space is used during the course of armed conflict. There is therefore an urgent to reach a consensus on additional legal regulation directly application to the conduct of armed conflict that may involve the use of space technology conflict.

In principle, the operation of UN Space Treaties is not ipso facto terminated or suspended during armed conflicts, perhaps with the possible exception of specific provisions of the Rescue and Return Agreement and the Registration Convention. However, in some situations some parts of these treaties would be considered terminated or suspended during the period of armed conflicts, between the States Parties to these treaties.

In the end, therefore, the UN Space Treaties, as they stand, whilst providing some important principles in relation to the conduct of armed conflict involving space assets, do not ‘cover the field’ in relation to such activities. We therefore urge the international community, in addition to further considering the issues addressed in this article, to seriously negotiate and ultimately agree additional binding instruments that will help to avoid scenarios that do not bear contemplation.