In search of the elusive conflict: The (in-)compatibility of the Treaties on the Non-Proliferation and Prohibition of Nuclear Weapons

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I. Introduction

> *"In the long run, international law, and with it the stability of the international order which it is intended to govern, are bound to suffer from the continuing difference of views with regard to the legal status of weapons as deadly as nuclear weapons. It is consequently important to put an end to this state of affairs: the long-promised complete nuclear disarmament appears to be the most appropriate means of achieving that result."*[1]

Viewed against the backdrop of the International Court of Justice (ICJ) opinion on the legality of the threat or use of nuclear weapons, there is little reason to take measures directed towards complete nuclear disarmament, i.e. elimination, lightly. If it is international law itself and the "stability of the international order" that are at stake, every initiative designed to "end … this state of affairs" deserves careful consideration.

In the nearly 50 years that have passed since parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)[2] expressed their desire to eliminate nuclear weapons[3] and entered into an obligation to negotiate and conclude a treaty to that end,[4] there has been little progress towards fulfilling it. The recently adopted Treaty on the Prohibition of Nuclear Weapons (TPNW)[5] represents the first instrument comprehensively prohibiting and devising a model for the total elimination of nuclear weapons. At the negotiating conference, 122 states voted in favour of the Treaty with 1 abstention and 1 negative vote.[6] A total of 70 states have signed the TPNW, and to

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1. UNGA Doc. A/51/218, annex, p. 34, para. 98; see also *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996*, p. 226 ("Nuclear Weapons Advisory Opinion").
2. Treaty on the Non-Proliferation of Nuclear Weapons (1968), IAEA Doc. INFCIRC/140, 729 UNTS 169, entered into force 5 Mar. 1970.
3. NPT, preambular para. 11.
4. On NPT, Article VI see *infra* notes 65 *et seq*.
5. Treaty on the Prohibition of Nuclear Weapons (2017), not in force, available at: https://treaties.un.org/doc/Treaties/2017/07/20170707%2003-42%20PM/Ch_XXVI_9.pdf.
6. United Nations (UN) Conference to Negotiate a Legally-Binding Instrument to Prohibit Nuclear Weapons (2017), "Draft Treaty on the Prohibition of Nuclear Weapons", UN Doc. A/CONF.229/2017/L.3/Rev.1, adopted on 7 July 2017.

date 23 have expressed their consent to be bound by it.[7] Though the Treaty will enter into force after the 50th instrument of consent is deposited, it requires the participation of states involved in nuclear weapon-related activities for it to unfold its full potential.

Among the concerns expressed by states hesitant to support the Treaty have been doubts pertaining to the compatibility of the TPNW with the NPT.[8] Though individual aspects have already been subject to pertinent analysis,[9] a comprehensive investigation has yet to be undertaken. The present contribution thus represents an effort to answer the following research questions:

Are the Treaties on the Non-Proliferation and Prohibition of Nuclear Weapons compatible?

Which provisions present potential grounds for pertinent concern?

If the Treaties do conflict, what are the resulting consequences under the law of treaties?

As a relatively new instrument, the TPNW has not yet been the subject of comprehensive interpretation. Analysing the compatibility of the two treaties may thus contribute added value towards efforts to increase legal security and the confidence of states as regards the legal basis of their positions. It is hoped that this contribution might ultimately confirm or dissuade compatibility concerns, without prejudice to further scientific debate and policy considerations.

The methodological approach will, in a first abstract step, identify the applicable rules governing conflicts between treaties under international law and propose a structure for their application to the present conditions. In a second step, the terms of the treaties will be interpreted and categorised with a view to facilitating comparison across treaties of substantive content and elucidating potential conflicts. These categories will first delineate the classes to which the respective treaty provisions apply and then divide rights and obligations between such owed to or by certain classes or all parties. Those provisions of the TPNW, which mirror such under the NPT, will be especially carefully read for common and distinguishing features. Where particular terms reveal an identifiable conflict potential, they will be selected for further analysis in tandem with similar provisions. Finally, identified incompatibilities will be tested against the applicable rules of treaty law in an effort to resolve them.

7. UN Treaty Collection, "9. Treaty on the Prohibition of Nuclear Weapons", https://treaties.un.org/Pages/ViewDetails.aspx?src=%20TREATY&mtdsg_no=XXVI-9&chapter=26&clang=_en (accessed 30 Apr. 2019).

8. See, e.g., Campaign for Nuclear Disarmament (2017), "CND UK", https://cnduk.org/resources/tridents-compatibility-international-law (accessed 9 Dec. 2018): "The UK government […] states that it believes a treaty banning nuclear weapons is not compatible with the nuclear Non-Proliferation Treaty (NPT)".

9. See, e.g., Giorgou, E. (2018), "Safeguards Provisions in the Treaty on the Prohibition of Nuclear Weapons", Arms Control Law, https://armscontrollaw.com/2018/04/11/safeguards-provisions-in-the-treaty-on-the-prohibition-of-nuclear-weapons (accessed 9 Dec. 2018); Malsen, S. (2017), "The Relationship of the 2017 Treaty on the Prohibition of Nuclear Weapons with other Agreements: Ambiguity, Complementarity or Conflict?", EJIL Talk, www.ejiltalk.org/the-relationship-of-the-2017-treaty-on-the-prohibition-of-nuclear-weapons-with-other-agreements-ambiguity-complementarity-or-conflict (accessed 9 Dec. 2018); Trezza, C. (2017), "The UN Nuclear Ban Treaty and the NPT: Challenges for Nuclear Disarmament", *IAI Commentaries*, Vol. 17, No. 15, Instituto Affari Internazionali, Rome, pp. 1-3.

II. Preliminary analysis of conflict potential

Any conflict[10] between the two treaties implies that they are applicable at the same time. Determining under which conditions both treaties would simultaneously operate, requires an identification of the subjects of international law bearing rights and duties under these treaty regimes. All 190 parties to the NPT and 23 parties to the TPNW are states and the treaties exclusively govern rights and obligations between states.[11]

To determine among which states the treaties create binding relations, three types of obligations may be envisaged. Obligations may be owed: 1) *vis-à-vis* each treaty party individually;[12] 2) to all states parties (*erga omnes partes*);[13] or 3) to the international community as a whole (*erga omnes*).[14] Treaties generally do not create rights or obligations for third states pursuant to the general *pacta tertiis* rule.[15] Within the relevant provisions, there is no indication that the NPT parties intended to depart from it.[16] In light of its wide acceptance, there has been some debate as to whether (certain) obligations contained within the NPT have become binding under customary international law.[17] Convincing contrary arguments aside,[18] conflicts

10. While the Vienna Convention on the Law of Treaties (see *infra* note 15) employs the term "conflict" only in the context of the invalidation of a treaty by a peremptory norm of international law (Articles 53 and 64) and "(in)compatibility" by reference to application of successive treaties (Article 30), ("illegal") *inter se* modifications (Article 41) or suspension (Article 58), as well as termination (Article 59), the present contribution will occasionally use these terms (in addition to "(in-)consistency") interchangeably.
11. Though one provision of the TPNW may serve as a basis to create rights for individuals upon national implementation (Article 6(1), pertaining to victim assistance and environmental remediation), it is complemented by a without-prejudice clause (Article 6(3)), and does not appear to intersect with the NPT. As a result, with respect to overlap, the treaties exclusively govern rights and obligations between states.
12. Article 42(a), Draft Articles on Responsibility of States for Internationally Wrongful Acts, Report of the International Law Commission on the Work of its Fifty-third Session, UN GAOR, 56th Session, Supp. No. 10, at 43, UN Doc. A/56/10 (2001) (ARSIWA).
13. *Ibid*., Article 42(b), first case.
14. *Ibid*., second case.
15. Article 34 of the Vienna Convention on the Law of Treaties codifying the principle *pacta tertiis nec nocent nec prosunt* (Vienna Convention on the Law of Treaties (1969), 1155 UNTS 331, entered into force 27 Jan. 1980 (VCLT)).
16. Intent constitutes a necessary requirement for both pursuant to Articles 35 and 36 VCLT. Whether or not the parties of the TPNW intended to stipulate rights or obligations for third states will be subject to further analysis below.
17. In particular, the fact that 188 of 193 UN member states are parties (*infra* note 40) to the NPT, may be considered indicative of its terms having become binding under customary international law based upon the requisite state practice and *opinio juris*. In this vein, the Marshall Islands have advanced the argument that NPT, Article VI reflects a customary obligation binding upon NPT non-parties (such as India and Pakistan) and NPT state parties (such as the United Kingdom) alike (see *Obligations concerning Negotiations relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament (Marshall Islands v. India), Jurisdiction and Admissibility, Judgment, ICJ Reports 2016*, p. 225, paras 25 *et seq*.; *Obligations concerning Negotiations relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament (Marshall Islands v. Pakistan), Jurisdiction and Admissibility, Judgment, ICJ Reports 2016*, p. 552, paras 25 *et seq*.; and *Obligations concerning Negotiations relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament (Marshall Islands v. United Kingdom), Jurisdiction and Admissibility, Judgment, ICJ Reports 2016*, p. 833, paras 12 *et seq*.). In the absence of a dispute, all three proceedings were discontinued without a decision on the merits, including the objective question.
18. The fact that a state has concluded a treaty does not necessarily permit the inference that it considers non-parties bound by the same rules under customary international law.

between customary obligations and the TPNW cannot be equated to such between the treaties. Therefore, the following will operate under the understanding that conflicts between the treaties be understood as those arising between states that are parties to both.

There are a number of ways in which treaties may conflict, each tied to appropriate consequences and resolution methods. Pauwelyn[19] proposes the following approach to the matter: one should first determine if one of the norms is invalid,[20] terminated[21] or illegal.[22] If not, priority rules govern prevalence otherwise rendering resolution via state responsibility a last resort.[23]

Where treaties relate to the same subject matter, one may specify its prevalence over the other.[24] Otherwise, pursuant to the *lex posterior derogat legi priori* principle, provisions of a later treaty will prevail between mutual parties.[25] Under particular circumstances, a more specific norm may enjoy priority pursuant to the *lex specialis derogat legi generali* principle.[26] Both concluding an "illegal" or "invalid" treaty and acting upon it may constitute an internationally wrongful act.[27] The same may apply to concluding or applying incompatible treaty provisions.[28] Notwithstanding these considerations pertaining to invalidity, termination, "illegality" and prevalence, treaty interpretation[29] too may offer means to resolve apparent conflicts.

III. The terms of the treaties

This section presents a summary of the terms of the NPT and TPNW. An analysis of conflicts necessitates an understanding not only of what is owed under the treaties, but also to whom by whom. Given that both treaties envisage distinct rights and obligations for different "categories" of states, these will be outlined at the outset. In a second step, the terms of each treaty will be illustrated in a condensed fashion based

Moreover, the ICJ has emphasised the importance of "specially affected states" participating in the establishment of customary rules. In the present context, the circumstance that several states that are not parties to the NPT have acted contrary to its provisions by acquiring nuclear weapons (see on *de facto* nuclear weapon states *infra* note 42), speaks against the customary nature of the NPT (see *North Sea Continental Shelf (Germany/Denmark; Germany/Netherlands), Judgment, ICJ Reports 1969*, p. 47, paras. 73-74.

19. Pauwelyn, J. (2003), *Conflict of Norms in Public International Law*, Cambridge University Press, Cambridge, p. 278.
20. For a treaty to be invalidated, its invalidity must be invoked. Relevant grounds include lack of consent (VCLT, Article 46), error (VCLT, Article 48), fraud (VCLT, Article 49), corruption (VCLT, Article 50), coercion (VCLT, Article 51) and conflict with a peremptory norm (VCLT, Article 52).
21. Similarly, termination of treaties too, must generally first be asserted and may be based upon material breach (VCLT, Article 60), impossibility of performance (VCLT, Article 61) fundamental change of circumstances (VCLT, Article 62), severance of relations (VCLT, Article 63), emergence of a conflicting peremptory norm (VCLT, Article 64) or conclusion of a later treaty (VCLT, Article 59).
22. A later treaty may be considered "illegal" if it is explicitly prohibited by the earlier treaty or constitutes a prohibited *inter se* modification (VCLT, Article 41) or suspension (VCLT, Article 58) of the earlier agreement. Pauwelyn, J. (2003), *supra* note 19, p. 298.
23. *Ibid*.
24. VCLT, Article 30(2).
25. *Ibid*., Article 30(3) and (4)(a).
26. See Pauwelyn, J. (2003), *supra* note 19, pp. 385 *et seq*.
27. *Ibid*., p. 276.
28. VCLT, Article 30(5).
29. VCLT, Articles 31 to 33.

upon these categories with a particular focus on provisions of significance to the respective corresponding treaty. These summaries will be complemented by commentary and remarks on notable or disputed interpretations, which are relevant for the purposes of the present analysis. The objective of this step is to identify provisions of potential conflict.

1. *The Treaty on the Non-Proliferation of Nuclear Weapons (NPT)*

The NPT has been the subject of many interpretations.[30] Overall,[31] the following will primarily represent an endeavour to independently capture the content of the Treaty based upon the applicable primary rules of treaty interpretation codified in Article 31 of the VCLT.[32] Though there can be great merit in considering well-established interpretations or such agreed upon by a number of parties,[33] for the purpose of comparing the NPT with the TPNW, it should be kept in mind that there are few interpretations upon which all NPT parties have been able to agree and even fewer that are binding. With this in mind, where appropriate, prior interpretations, including elaborations upon context and subsequent agreement, will be referenced, to inform what may be a *better* but nevertheless, strictly speaking, would be difficult to elevate as the only *correct* view. Importantly, for the sake of testing the compatibility of the NPT with the TPNW, it is not necessary and perhaps should even be avoided to compare the entire corpus surrounding both treaties with one another. In particular, this includes *travaux préparatoires* (which should be but often are not only supplementarily resorted to)[34] and review conference documents (which can, but often do not represent subsequent agreement or practice)[35]. Primarily reviewing the provisions of the Treaty, the following interpretation will thus focus on the ordinary

30. See, e.g., various review conference documents cited throughout and (references contained in) scholarly contributions such as Joyner, D.H. (2009), *International Law and the Proliferation of Weapons of Mass Destruction*, Oxford University Press, Oxford; Joyner, D.H. (2013), *Interpreting the Nuclear Non-Proliferation Treaty*, Oxford University Press, Oxford; Coppen, T. (2015), *Preventing the Spread of Nuclear Weapons*, T Coppen, Utrecht.
31. Under certain circumstances, particular importance may be attributed to individual "settled interpretive understandings" (see, e.g., Joyner, D.H. (2017), "Amicus Memorandum to the Chair of the United Nations Negotiating Conference for a Convention on the Prohibition of Nuclear Weapons", available at https://armscontrollaw.files.wordpress.com/2017/06/amicus-memorandum.pdf (accessed 10 Dec. 2018): "The legal interpretation of the safeguards obligation in Article III of the NPT, and the related legal architecture of IAEA safeguards agreements, has developed through a long and complex history of normative evolution. This interpretation is highly dependent on the context in which the safeguards obligation provisions appear in the NPT").
32. The VCLT entered into force in 1980, does not apply retroactively as per its Article 4 and thus cannot govern the NPT, which entered into force ten years prior. Nevertheless, many provisions of the VCLT have been recognised as reflecting customary international law, and the ICJ has in fact never found that any provision of the Treaty does not (see Mendelson, M. (1996), "The International Court of Justice and the Sources of International Law", in V. Lowe and M. Fitzmaurice (eds.), *Fifty Years of the International Court of Justice. Essays in Honour of Sir Robert Jennings*, Cambridge University Press, Cambridge, p. 66). As a result, this contribution will apply the terms of the VCLT as a reflection of customary international law.
33. Joyner, D.H. (2017), *supra* note 31.
34. VCLT, Article 32.
35. See *infra* notes 265 *et seq*. on the relevant criteria for determining whether such conduct represents agreement on a case-by-case basis.

meaning of the terms, remaining aware of their context, the object and purpose of the Treaty[36] and the requisite good faith.[37]

1.1. *Categories of states parties to the Treaty*

One characteristic feature of the Treaty is its division into "nuclear-weapon states" (NWS) and "non-nuclear-weapon states" (NNWS). Facing predictions of as many as 25 nations possessing nuclear weapons within the next decade,[38] one principal objective of the Treaty was to halt further proliferation by "freezing" the number of states with nuclear-weapon capabilities. As a result, NWS are defined in Article IX as such that have "manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967".[39] Often referred to as *de jure* NWS these are China, France, the former Soviet Union (Russian Federation), the United Kingdom and the United States.

All of the other, currently 190, parties to the Treaty are NNWS.[40] Though the United Nations Office for Disarmament Affairs does still list 191 parties, including the DPRK by virtue of divergent views on the effectiveness and date of its withdrawal, the non-party status of the DPRK appears to have been accepted by now.[41] The only UN member states that are not parties to the Treaty are those that (are believed to) currently possess nuclear weapons, having acquired the capability after the NPT reference date (the DPRK, India, Israel and Pakistan – often referred to as *de facto* NWS)[42] and South Sudan.

1.2. *Rights and obligations of NWS*

Contrary to popular belief,[43] the NPT does not contain any rights that are exclusively enjoyed by NWS. The Treaty enshrines rights and obligations incumbent upon all parties, such pertaining exclusively to NNWS and also obligations exclusively binding

36. Understood as the three pillars of the NPT: non-proliferation, disarmament and peaceful use. See, e.g., Joyner, D.H. (2013), *supra* note 30, pp. 33-34.
37. Subsequent agreement (and practice establishing it) as well as relevant rules of international law will be taken into account with the context in addition to any special meanings.
38. Nye, J.S. (1985), "The Logic of Inequality", *Foreign Policy*, No. 59, Slate Group, LLC, Washington, DC, p. 123.
39. NPT, Article IX. For the sake of brevity and simplicity, the phrase "nuclear weapon or other nuclear device" is reduced to "nuclear device" below, given that the latter includes the former. Wherever treaty language does deviate from this standard term (such as "nuclear explosions" referenced in Article V of the NPT or simply "nuclear-weapons" in Article 7(3) of the TPNW, this will be indicated accordingly.
40. These include 188 of the currently 193 UN member states in addition to the Holy See and Palestine. The UN Office for Disarmament Affairs has compiled a list based upon information provided by the depository states (Russia, the United Kingdom and the United States), denominating all parties at present (on the Democratic People's Republic of Korea (DPRK) see *infra*), including those that have gained that status by state succession (UNODA (n.d.), "Status of the Treaty", http://disarmament.un.org/treaties/t/npt (accessed 15 Nov. 2018)).
41. The Security Council has *demanded* that the DPRK "return" to the NPT, thus implying that it has recognised withdrawal (UN Security Council Resolution (UNSCR) 1718 (2006), "Non-proliferation/Democratic People's Republic of Korea", UN Doc. S/RES/1718, adopted 14 Oct. 2006).
42. The term should be understood without prejudice to the question of the legality of such acquisition. Kile, S.N. et al. (2011), "World nuclear forces" in SIPRI (ed.), *SIPRI Yearbook 2011: Armaments, Disarmament and International Security*, Oxford University Press, Oxford, pp. 319-353.
43. Joyner, D.H. (2017), supra note 31: "Some nuclear weapons states have for some time argued that the NPT gives them a 'right' to possession and to further production and refinement of nuclear weapons. In my view this assertion is totally unsupported by the text of the NPT."

upon NWS. But there is no provision within the Treaty that stipulates a particular right of an NWS and thus also none granting NWS a right to nuclear weapons. While a comprehensive interpretation of the entire Treaty would reasonably come to the conclusion that all parties accept that the NWS may maintain nuclear weapons until the obligation to negotiate has become obsolete by virtue of complete nuclear disarmament having been achieved, that acceptance is not identical to a right being conferred by the parties under the terms of the Treaty. The absence of a prohibition cannot be equated with the stipulation of a right.[44]

NWS are subject to three types of obligations, reflecting the three "pillars" of the NPT: non-proliferation, peaceful use and disarmament. Falling within the first category is the obligation of NWS not to contribute to the acquisition of or control over nuclear explosive devices[45] by NNWS pursuant to Article I.[46] Given that the essence of the non-proliferation component of the Treaty is to prevent further states from acquiring (control over) nuclear explosive devices, this represents the core of the obligation. The first clause of the provision, pertaining to the transfer of (control over) entire nuclear explosive devices, relates not only to NNWS but to "any recipient whatsoever", thus other NWS as well. Therefore, it is substantively narrow (only entire nuclear explosive devices) and wide in terms of the number of relevant parties (NWS and NNWS alike). As the second clause includes assistance, not limiting itself to entire nuclear explosive devices, but also manufacture and other modes of acquisition, it is, materially speaking, the wider of the two clauses, but governs only interactions with NNWS. In summary, it is a narrow obligation versus all states and a wide one versus NNWS. Article I enshrines a comprehensive obligation as regards acquisition of (control over) nuclear explosive devices by NNWS and a more limited undertaking regarding contributions for the benefit of NWS. The purpose of this distinction has been understood to permit trading components (thus not entire nuclear explosive devices) between NWS.[47] Considering that such activity would not increase the number of states possessing (control over) nuclear explosive devices, it might be considered less significant from a proliferation point of view. Preambular paragraphs 1, 2 and 3 provide especially relevant context to this provision (and its counterpart,

44. In this context the absence of a right under the Treaty should be distinguished from the absence of a right *per se*. Pursuant to what is widely referred to as the *Lotus principle*, cited, *inter alia*, by the ICJ in its Nuclear Weapons Advisory Opinion, "'restrictions upon the independence of States cannot … be presumed' and … international law leaves to States 'a wide measure of discretion which is only limited in certain cases by prohibitive rules'" (Nuclear Weapons Advisory Opinion, *supra* note 1, p. 12, para. 21, citing *The Case of the S.S. "Lotus" (France v. Turkey), Publications of the Permanent Court of International Justice (1927),* Series A, No. 10, pp. 18-19.
45. The phrase employed in the first half of the first clause "nuclear weapon or other nuclear explosive device" implies that under the Treaty, nuclear weapons are considered a type of nuclear explosive device. Yet, the second half of the clause proceeds with the wording "such weapons or explosive devices". Given that the first portion of the clause can be understood to explain the relationship between nuclear weapons and nuclear explosive devices, presumably, any further reference to these terms must be informed by that understanding. Therefore, the use of the word "or" as opposed to "or other" may be understood not to modify the initial explanation in the first half of the first clause.
46. This wording is designated to summarise Article I. The term "contribute" should be understood to include both the act of directly or indirectly transferring, as well as assisting, encouraging or inducing. Given that the provision defines manufacture as one of several modes of acquisition, the latter includes the former.
47. Joyner, D.H. (2009), *supra* note 30, p. 11.

Article II),[48] referencing both the devastation of nuclear war being exacerbated by proliferation and an agreement to prevent it.

This is in fact the only obligation within the Treaty that is explicitly exclusively addressed to NWS. Of course, other obligations, which are incumbent upon "each" or "all" parties, are more relevant to NWS than NNWS. This includes the important disarmament obligation (Article VI), the prohibition on sharing equipment or material in absence of safeguards (Article III(2)) and also the significantly less meaningful provision governing sharing benefits of peaceful nuclear explosions (Article V). Due to the fact that these nevertheless represent undertakings of all states they will be addressed below (*infra*, "1.4 Rights and obligations of all parties").

1.3. Rights and obligations of NNWS

Similar to what has been described above in the context of the absence of rights explicitly and exclusively conferred upon NWS, the Treaty does not stipulate any notable rights enjoyed solely by NNWS. Logically, certain provisions, such as Article VII, relating to the right of establishing Nuclear-Weapon-Free Zones (NWFZ), bear less meaning for NWS. Also, while disarmament (Article VI) is, as indicated, addressed to "[e]ach of the Parties", it might be viewed as a burden to NWS and a privilege for NNWS and thus bearing the character of an obligation for one and a right for the other. Nevertheless, the relevant article is phrased as an obligation undertaken by each of the parties and will thus be further analysed as such (see *infra*, "1.4 Rights and obligations of all parties"). One exception, strictly speaking, to the suggested absence of any rights enjoyed only by NNWS, are the second and fourth sentences of Article V, stipulating the right of NNWS to obtain the benefits of peaceful nuclear explosions subject to certain conditions. Read in isolation, these would suggest that the Treaty does enshrine a right that only NNWS enjoy. Due to the fact that this right is subject to several modifiers contained in the provision, which as a whole merits a more comprehensive analysis and obliges "[e]ach Party", it will be discussed in greater detail below (see *infra*, "1.4.2 Obligations of all parties").

NNWS too, are bound by undertakings relating to the three pillars of the NPT. Contrary to NWS, they are subject to two obligations addressed to them exclusively, pertaining to non-proliferation and peaceful use. For one, Article II represents a counterpart provision to Article I. It enshrines the obligation of NNWS not to acquire (control over) nuclear explosive devices. Compared to Article I, this provision contains three, as opposed to two, clauses and does not employ distinctions widening and narrowing substantive applicability versus NWS and NNWS. It simply reproduces its counterpart from the perspective of NNWS, while omitting the portion relevant only between NWS (the implicit "privilege" illustrated above in the text at *supra* note 47). The terms of the article divide the obligation into three aspects: that 1) not to receive nuclear explosive devices or control over them directly or indirectly; 2) not to acquire them (by manufacture or otherwise); and 3) not to seek or accept assistance in their

48. Throughout the Treaty's review cycle (envisaged by Article VIII (3)), these three paragraphs have been linked to Articles I and II. Initially, the provisions of Article III (concerning safeguards) and thus corresponding preambular paragraphs four and five were (designated to be) reviewed together with Articles I and II. Since the 1985 Review Conference, the linkage between Articles I and II on the one hand and preambular paragraphs one and three on the other has been consistent (with the exception of the 2010 Review Conference, which referenced only paragraphs one and three). For the various final documents indicating which articles and preambular paragraphs were tied to one another when (setting the agenda for) reviewing the operation of the Treaty, see NPT/CONF/35/I (Part I) [1975], NPT/CONF/II/22/I (Part I) [1980], NPT/CONF.III/64/I (Part I), Annex I [1985], NPT/CONF.IV/45/I (Part I), Annex I [1990], NPT/CONF.1995/32 (Part III) [1995], NPT/CONF.2000/28 (Part I) [2000], NPT/CONF.2005/57 (Part I) [2005], NPT/CONF.2010/50 (Vol. I) [2010] and NPT/CONF.2015/50 (Part I) [2015].

manufacture. Given that a prohibition to manufacture may be understood to include pertinent assistance while manufacture constitutes but a mode of acquisition, the phrase "not to acquire (control over) nuclear explosive devices" reasonably summarises the content of the provision.

For the purposes of verification, Article III(1) obliges NNWS to conclude safeguards agreements with the International Atomic Energy Agency (IAEA), without impeding peaceful use of nuclear energy (3) and within a predetermined period of time (4).[49] Though each party to the Treaty is subject to an obligation not to provide equipment or material to other NNWS under paragraph (2) (addressed *infra* under "1.4 Rights and obligations of all parties"), only NNWS themselves are obliged to accept safeguards.[50] Paragraph (3) explicitly refers to the Preamble and the "principle of safeguarding" (preambular paragraph 5), which supports further bolstering of safeguards.[51]

1.4. *Rights and obligations of all parties*

The majority of the substantive provisions of the Treaty are phrased as binding upon "each", "any" or "all" of the parties alike. Nevertheless, as indicated above, not all of these objectively phrased provisions do, in fact, create the same rights and obligations for both NWS and NNWS. As a result, where appropriate, the following will distinguish what is required or permitted for each class.

1.4.1. Rights of all parties

Article IV(1) is, essentially, a "without prejudice-clause", recognising the right of all the parties to pursue various activities associated with peaceful purposes of nuclear energy. Though the provision does refer to "parties", considering that an "inalienable" right is referenced, which shall not be "affected" by the Treaty, it seems to, for one, simply reiterate that a right enjoyed by all states is enjoyed by the parties too. For another, it contains a modifier, namely "in conformity with Articles I and II". Thus, the provision evidently aims to confine the right that it restates within the limits of the non-proliferation obligation under the Treaty. Considering that Articles I and II govern nuclear explosive devices and Article III relates to peaceful purposes, it would seem that both are mutually exclusive in any event. Insofar as paragraph (1) thus simply reiterates a right and, if at all, limits it pursuant to Articles I and II, there may be reason to doubt that it stipulates a distinct right at all.

The first sentence of Article IV(2) contains both a right ("to participate in") and an obligation ("to facilitate") the exchange of peaceful nuclear capabilities.[52] As both NWS and NNWS can provide and benefit from individual capabilities, this provision appears balanced in that both the right and obligation may be relevant to NWS and NNWS alike.

49. Article III(2) is the only of the four paragraphs of the Article that is not exclusively addressed to NNWS, but rather "[e]ach State Party". It will thus be further elaborated upon (see *infra* "1.4 Rights and obligations of all parties").
50. *Ibid*.
51. While the first two review conferences linked paragraphs one through five, corresponding with Articles I, II and III, later conferences first isolated Article III linked with preambular paragraphs four and five (1985) and then began referencing their relationship with Article IV and preambular paragraphs six and seven (peaceful use) (1990, 1995, 2000 and 2005). Though some Conferences have framed reviewing the operation of the Treaty in other variations of relationships between individual (provisions of) Articles (including with regard to Article III(3) and Article IV (e.g. 1990, 2005 and 2015)), preambular paragraphs four and five have always remained linked with Article III as a whole since. For the relevant final documents illustrating these linkages, see *supra* note 48.
52. The term "capabilities" should be understood to summarise the physical (i.e. equipment and materials) and knowledge-related components (i.e. technological and scientific information) of exchange referenced in the provision.

Preambular paragraph 6 reinforces the right, referencing "benefits" that "should be available […] to all" (in addition to a specific reference to such which only NWS are able to provide), while the first two clauses of paragraph seven emphasise the right ("entitled to") as regards scientific information in particular (one of the components of capabilities).[53] The second sentence stipulates an obligation to co-operate in developing applications, "especially" in NNWS and "with due consideration for" developing areas (the latter portion of preambular paragraph 7 conversely envisages a right ("entitled […] to contribute to")).[54] Because the second sentence does include the term "also", it would be reasonable to infer that the co-operation obligation is distinct from the right and obligation of the first sentence, its modifiers thus not piercing what could otherwise be construed as a robust right and obligation to exchange. In any event, the sentence is phrased as an obligation, not a right, thus directed at those providing, not those receiving the benefits of co-operation.

Similar to Article III(1), Article VII is phrased as a "without prejudice-clause", restating the right of states to conclude treaties banning nuclear weapons on their territory. Though the provision refers to a right enjoyed by "any group of States", it would seem unreasonable to interpret the clause as implicitly limiting the right of each state to "assure the total absence of nuclear weapons" on their territory individually (as Mongolia has, by declaring a one-state NWFZ).[55] Similarly, it would appear inappropriate to understand the following reference to "regional treaties" implying a prohibition on a ban via treaty between states that are not located in the same geographical region. Finally, the nature of this Article, as a "without prejudice-clause" beginning with the words "[n]othing in this Treaty affects the right", is such that it does not create any new rights or modify existing ones. Contrary to Article III(1), which also sets out as a "notwithstanding provision" but contains a modifier ("in conformity with…"), Article VII restates a right without referencing a possible limitation. Thus, the meaning of the provision appears to be limited to restating, for the purpose of avoiding any misunderstanding, that the Treaty does not hamper an existing right. Nevertheless, to verify the compatibility of this provision of an explicitly regional scope with the TPNW, it will be subject to closer analysis below.

In summary, Article VII (right to establish NWFZ) is a restatement of a right. The same applies to Article IV(1) (right to peaceful use) at best, including a limitation at worst. The second sentence of Article IV(2) stipulates a rather soft co-operation obligation. Thus, the right to participate in the exchange of peaceful nuclear capabilities under the first sentence of Article IV(2), may be considered to constitute the only significant right enjoyed by all parties under the Treaty.

1.4.2. Obligations of all parties

Paragraph (2) of Article III is the only portion of that Article phrased as an obligation binding upon "[e]ach State Party". While it is only NNWS that are required to conclude

53. Initially, during the first two review conferences (1975 and 1980), preambular paragraphs six and seven were linked to Article V. As an understanding of the facts relevant to Article V matured (*infra*, "1.4.2 Obligations of all parties"), it was replaced by Article IV in this regard (1985). Later conferences then began to reference the relationship between Articles III and IV, while maintaining the link between Article IV and preambular paragraphs six and seven (for the relevant review conference documents, see *supra* note 48).

54. While it may be challenging to attribute a specific meaning to these qualifiers that would widen the obligation for the benefit of NNWS and developing states, the sentence also includes a reference to parties "in a position to do so". The phrase may be interpreted as either referring to a state that simply possesses capabilities, or pointing to the discretion of states as regards the factors that would render them in such a position. The latter would significantly limit the rigorousness of what is at the outset a mere co-operation obligation.

55. Enkhsaikhan, J. (2000), "Mongolia's Nuclear-Weapon-Free Status: Concept and Practice", *Asian Survey*, Vol. 40, No. 2, University of California Press, Oakland, California, pp. 342-359.

safeguards agreements (paragraph (1)), under paragraph (2) all parties are prohibited from providing certain equipment or material unless it will be subject to safeguards. With regard to the purpose of safeguards as intended to prevent NNWS from diverting resources employed for peaceful uses towards a nuclear weapons programme of their own, it seems only reasonable to forego any such requirement for NWS in light of Article II. NWS already have nuclear weapons programmes; it thus would not make sense to verify that they are not diverting peacefully employed resources to that end. Yet, as regards the function of safeguards as preventing parties from sharing resources with other states that may then use them for nuclear weapons, it would appear prudent to verify that NWS are using their equipment and material for their own nuclear programmes exclusively and not diverting those resources to illicit foreign nuclear weapons programmes. Article III(2), however, references only "safeguards required by this Article", the other paragraphs of which create obligations for NNWS only. Therefore, pursuant to the ordinary meaning of the provision, the only obligation created for an NWS by paragraph (2) is not to provide resources to NNWS unless they will be subject to safeguards on the receiving end. Thus, for NNWS, any resources they provide are subject to safeguards both on the sending and the receiving end, while NWS are bound only by half that obligation. As of yet, NWS have concluded a variety of voluntary offer and model additional protocol-based (similarly voluntary) safeguards agreements.[56] Whether these meet the threshold of comprehensive safeguards agreements or the model additional protocol, thus verifying non-diversion of all declared and absence of any undeclared materials or activities may be subject to doubt. The provision thus stipulates an obligation of parties to ensure that certain shared resources will be subject to safeguards on the receiving end. Preambular paragraph 4 reinforces this understanding, referring to an "[u]ndertaking to co-operate".

Article IV(2), governing the exchange of peaceful nuclear capabilities, is phrased both as a right and an obligation (see *supra* "1.4.1 Rights of all parties"). As an obligation, the first sentence requires all parties to "facilitate" such exchanges. The second sentence obliges parties "in a position to do so" to co-operate in further developing peaceful applications. Thus, similar to what has been described above in terms of the provision as creating a right, the first sentence stipulates a distinct obligation too. The co-operation obligation in the second sentence is of a more equivocal and perhaps elusive nature.

In the furthest sense, Article V governs the obligation to make benefits of peaceful nuclear explosions available to NNWS. Sentence two stipulates a right of NNWS, with sentences three and four further elaborating upon that right. As far as the last three sentences of the provision and thus, the right of NNWS is concerned, obtaining "such" (i.e. "potential", see below) benefits would require either concluding a prior special international agreement and setting up an international body or a bilateral agreement, which would both arguably necessitate prior negotiations.[57] The first sentence of the provision, on the other hand, is phrased as an obligation of "[e]ach Party". It is similar to Article VI (disarmament), in that both, though addressed to all parties, primarily bear significance as an obligation for NWS. After all, pursuant to Articles I and II only the NWS may dispose of nuclear explosive devices. There are a number of reasons not to attribute great significance to Article V at the outset. For one, the obligation in the first sentence is highly equivocal. It would not have been difficult to phrase this provision as an obligation "to make available", instead, at its

56. IAEA (2018), "Status List: Conclusion of safeguards agreements, additional protocols and small quantities protocols", available at www.iaea.org/sites/default/files/status-sg-agreements-comprehensive.pdf (accessed 19 Dec. 2018).

57. The only known agreement of this nature is the Treaty Between The United States of America and The Union of Soviet Socialist Republics on Underground Nuclear Explosions For Peaceful Purposes (and Protocol Thereto) (1976), entered into force 11 Dec. 1990.

core, it requires taking mere "appropriate measures to ensure". What may be considered "appropriate" could well be narrowly, and as a generic term, evolutively interpreted.[58] The provision is additionally narrowed by the requirements of the object and purpose of the Treaty, and also the context of the provision, which is further emphasised by an explicit reference ("in accordance with this Treaty"). Additionally, the wording of the Treaty does not definitively state that there are any benefits to peaceful nuclear explosions at all, instead referencing "potential benefits". Moreover, for these to be made available, both "international observation" and "international procedures" would have to be in place, each themselves "appropriate". In summary, the wording of the provision alone describes an obligation of conduct, not result, relating to the provision of something that may not exist, under procedures that must be installed, while preserving discretionary power. For another, history has demonstrated that the implied suspicion of the drafters, that there may, in fact, not be any benefits to peaceful nuclear explosions ("potential benefits") was justified. Though both US and Soviet programmes did, for a number of years, explore applications, including such intended to create harbours,[59] seal oil wells[60] or release carbon gases,[61] those programmes have been abandoned.[62] The prevailing view is that all relevant applications can be achieved with conventional explosives at a fraction of the cost and contamination.[63] Over the 48-year history of the NPT there has not been a single instance of a peaceful nuclear explosion being made available as envisaged by Article V.[64] Nevertheless, the Treaty has not been formally amended so as to delete the provision. As a result, its compatibility with the TPNW merits further analysis.

Article VI constitutes the perhaps most controversial and, with respect to the TPNW, likely most significant provision of the NPT. It enshrines three negotiation-related obligations[65] of each party relating to: i) a "cessation of the nuclear arms race"; ii) "nuclear disarmament"; and iii) "a treaty on general and complete disarmament". Preambular paragraphs 8 through 12 have been consistently linked to Article VI throughout the Treaty's review cycle.[66] In addition to referencing co-operation towards arms race cessation and nuclear disarmament, banning nuclear tests as well as refraining from the threat or use of force, these importantly refer to the "elimination […] of nuclear weapons […] pursuant to a Treaty". The provision has

58. On the evolutive interpretation of generic treaty terms see *Aegan Sea Continental Shelf Case (Greece v. Turkey), Judgment, ICJ Reports 1978*, p. 3, para. 77.

59. O'Neill, D. (1989), "Project Chariot: how Alaska Escaped Nuclear Excavation", *Bulletin of the Atomic Scientists*, Vol. 45, No. 10, Taylor and Francis, Chicago, pp. 28-37.

60. Nordyke, M.D. (2000), *The Soviet Program for Peaceful Uses of Nuclear Explosions*, US Department of Energy, California, p. 35.

61. *Ibid.*, p. 24.

62. US Department of Energy (n.d.), *Executive Summary: Plowshare Program*, US Department of Energy, p. 1; Nordyke, M.D. (2000), *supra* note 60.

63. On benefits of peaceful nuclear explosions see, in particular, *infra* note 252.

64. *Ibid.*, no requests are known to have been received since.

65. Elaborating upon various arguments pertaining to the interrelationship between the elements of Article VI and concluding that it delineates three separate obligations, rather than one sequenced undertaking, see Joyner, D.H. (2001), *Interpreting the Nuclear non-Proliferation Treaty*, Oxford University Press, Oxford, pp. 97-102.

66. Without exception, the final documents of all review conferences have maintained this link when (setting the agenda for) reviewing the operation of individual provisions of the Treaty (for the relevant documents see *supra* note 48).

been subject to notable disagreement, commentary and a variety of interpretations. To elucidate its compatibility with the TPNW, it will be analysed in detail below.[67]

1.5. *Final provisions*

In addition to the substantive provisions illustrated above (Articles I through VII), the final Articles of the Treaty might include grounds for concern in terms of compatibility with the TPNW. They are also relevant for the interpretation of the Treaty (e.g. as regards the consideration of review conferences and the amendment procedure when discussing subsequent agreement or practice) and will therefore be briefly referenced insofar as of interest to the present analysis. Although subsequent agreement (or practice establishing such agreement) is relevant to the interpretation of treaties pursuant to VCLT, Article 31(3)(a) and (b), such agreement may, in fact, represent an amendment. "[I]f … interpretation … diverges … from the natural and ordinary meaning … there may be a blurring of the line between the *interpretation* and the *amendment* of a treaty by subsequent practice".[68] Non-observance of an amendment procedure envisaged by a treaty does not render amendment by subsequent agreement impermissible. The perhaps most conspicuous relevant example concerns Article 27(3) of the UN Charter, which envisages "concurring votes" of permanent members of the UN Security Council, but has in fact by subsequent practice been modified to require the absence of a negative vote (veto).[69]

Paragraphs (1) and (2) of Article VIII govern the amendment procedure of the Treaty. Any party may propose amendments, which are discussed at specially convened conferences if supported by at least one-third of all parties, where they are passed by majority vote including all NWS and current members of the Board of Governors of the IAEA. The review cycle mechanism is illustrated in paragraph (3). For the purpose of reviewing the operation of the Treaty "with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realised", a quinquennial conference is convened five years after entry into force (first in 1975) and may, upon submission of majority proposal, be repeated at such intervals.

In addition to governing consent and entry into force, Article IX designates the Soviet Union (Russia), United Kingdom and United States as Depositaries (paragraph (2)). The second sentence of paragraph (3) contains the above-mentioned definition of an NWS, namely any state "which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967". Paragraph (1) stipulates that every party enjoys the right to withdraw from the Treaty. Such withdrawal is envisaged where i) "supreme interests" of a state are jeopardised by ii) "extraordinary events" that are iii) "related to the subject matter of [the] Treaty". These three elements are complemented by three references to the subjective determination of a withdrawing state, one implicit, two explicit. The first indicates that the right to withdraw is practised "in exercising […] national sovereignty", while the second clarifies which body possesses the authority to determine when the relevant elements are met, namely the withdrawing state itself ("if it decides"). A third reference to the discretion of such states is integrated in the notification procedure,

67. Analysis will be performed under particular consideration of the relevant preambular paragraphs, the appropriate interpretation by the ICJ and subsequent conduct of the parties at various review conferences.

68. Waldock, H. (1964), *Third Report, Yearbook of the ILC*, Vol. II, p. 60, para. 25 (footnote omitted) (emphasis in the original).

69. *Legal Consequences of the Continued Presence of South Africa in Namibia (South West Africa), Advisory Opinion, ICJ Reports 1971*, p. 16, para. 22. On these and similar instances, see Gardiner, R.K. (2015), *Treaty Interpretation*, Oxford University Press, Oxford, pp. 275-280. For further elaborations on subsequent agreement and practice establishing it in the context of the NPT see *infra* notes 252 *et seq*.

requiring a mere subjective statement pertaining to the three elements listed above ("events it regards as having jeopardized"). Withdrawal is effected with three months' notice. The provision has been the subject of some controversy in the context of the only withdrawal to date, that of the DPRK.[70] Paragraph (2) envisages convening a conference for the purposes of a majority decision upon the further duration of the Treaty 25 years after its entry into force. At the 1995 Review and Extension Conference, the Treaty was extended indefinitely.[71]

2. *The Treaty on the Prohibition of Nuclear Weapons (TPNW)*

2.1. *Categories of states parties to the Treaty*

Unlike the NPT, the TPNW does, in a sense, significantly contain one set of standards that applies to all states equally. While the strict unconditional non-proliferation obligation of NPT, Articles I and II mirrors a disarmament obligation interposed by prior negotiations under Article VI, the TPNW establishes rules that apply to all parties alike. Conversely, acknowledging that different states must also take different steps to comply with one and the same prohibition, elimination or remediation standard, not all rules of the TPNW are relevant to every state. Distinguishing based upon a number of factors pertaining to conducted nuclear weapon-related activities, the TPNW thus too establishes a number of state party "categories".

For the purposes of the Treaty, the primary distinction drawn is that between armed, disarmed and sharing states. The applicability of individual provisions attaches to various reference dates, meaning that temporal aspects are essential for understanding the operation of the Treaty. Because the TPNW does not distinguish between open and covert activity, it should be kept in mind that particular terms could also apply to certain (future) parties not previously known to have engaged in relevant conduct.

2.1.1. Disarmed States (DS)

Article 2(1)(a) refers to states that "owned, possessed or controlled" (hereinafter "disposed of") "nuclear weapons or nuclear explosive devices" but eliminated relevant programmes prior to subjective entry into force of the Treaty. Perhaps most significantly, this definition applies to states that are known to have once disposed of such weapons or devices, namely Belarus, Kazakhstan, South Africa and Ukraine

70. On 12 March 1993, the DPRK notified the three depositary states that it would withdraw from the NPT upon lapse of the three-month notice period envisaged under Article X. After 89 days, on 11 June 1993, one day before withdrawal would have become effective, the DPRK suspended "effectuation" of withdrawal. On 10 January 2003, the DPRK notified the UN Security Council that it would withdraw from the NPT within one day, representing the unelapsed portion of the notice period. A variety of theories on the effectiveness of withdrawal have been advanced. Some pertain to the fact that the DPRK may have been required to observe the full three-month period when it notified its intention to withdraw in 2003. Others refer to the lack of withdrawal notification versus the three depositary states (in 2003), which is required in addition to such versus the Security Council under Article X of the NPT. Others again posit that Article X may include objective elements, which must be fulfilled and not merely invoked by a withdrawing state (Kirgis, F.L. (2003), "North Korea's Withdrawal from the Nuclear Nonproliferation Treaty" in *ASIL Insights*, Vol. 8, Issue 2). To date, not all parties have been able to agree on the effectiveness or date of the withdrawal. Still, in light of various statements, including a Security Council resolution (*supra* note 41), referring to the "return" of the DPRK to the NPT, the parties seem to have arrived at an understanding that the DPRK has withdrawn. On the chronology of the DPRK's withdrawal see IAEA (2018), "IAEA and DPRK: Chronology of Key Events", www.iaea.org/newscenter/focus/dprk/-chronology-of-key-events (accessed 19 Dec. 2018).

71. 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, NPT/CONF.1995/32 (Part I), Annex, Decision 3.

(Known Formerly Armed States).[72] Moreover, considering that the TPNW is yet to enter into force, current NWS, whether *de jure* or *de facto*,[73] may, by the entry into force of the TPNW, have disarmed and thus fall within this category (Newly Disarmed States). Additionally, the provision would apply to states that at the time the Treaty enters into force, reveal that they at one time disposed of nuclear weapons or nuclear explosive devices without that circumstance having become known (Covertly Disarmed States). Finally, it would also be possible that further states establish themselves as known *de facto* NWS, e.g. by withdrawing from the NPT or gaining statehood, and then disarm before the TPNW enters into force for them (Future Disarmed States). One notable difference between this category and those illustrated below[74] is that it employs only the word "or" as opposed to "or other" when referring to nuclear weapons and nuclear explosive devices.[75]

2.1.2. Continuingly Armed States (CAS)

Article 2(1)(b) complements the prior provision by reference to states that have not abandoned their disposition by the time the Treaty subjectively enters into force. The same category is also employed by Article 4(2). It would thus apply to the *de jure* NWS and current (as well as potential future known) *de facto* NWS, provided that they do not disarm by the time the Treaty enters into force for them. Moreover, states which reveal that they dispose of nuclear explosive devices at such time without that circumstance having been known beforehand (Covertly Armed States) would fall within this category as well.

2.1.3. Sharing States (SS)

Finally, paragraph (c) of Article 2(1) as well as Article 4(4) concern states that do not dispose of nuclear explosive devices, but do have such on their territory or a place under their jurisdiction or control. These devices must also be disposed of by another

72. Potter, W.C. (2010), "The NPT & the Sources of Nuclear Restraint", *Daedalus*, Vol. 139, No. 1, The Global Nuclear Future, Vol. 2, The MIT Press, Cambridge, Massachusetts, p. 69. The former Soviet Republics destroyed or transferred their arsenals to Russia under the Lisbon Protocol to the 1991 Strategic Arms Reduction Treaty (Protocol to the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms (1992), entered into force 5 Dec. 1994; Reif, K. (2014), "The Lisbon Protocol At a Glance", Arms Control Association, www.armscontrol.org/node/3289 (accessed 20 Dec. 2018)), while South Africa also voluntarily disarmed by 1993 (Pike, J. (2011), "Nuclear Weapons Program – South Africa", Global Security, www.globalsecurity.org/wmd/world/rsa/nuke.htm (accessed 20 Dec. 2018)).

73. As envisaged by NPT, Article IX; Kile S.N. et al (2011), *supra* note 42. The idea and term of a *de facto* NWS can only apply to the NPT regime. As indicated above, it is not settled whether "being an NWS" outside the NPT regime may be considered generally illegal (*supra* notes 17 and 18). Arguments positing that it is not, in light of the lacking requisite participation of "specially affected states" for the emergence of a customary rule of international law, appear convincing. Pursuant to that view, it would seem inappropriate to deprive a non-NPT NWS of the "*de jure*" adjective. Within the TPNW it is impossible for a state to constitute a *de jure* NWS. Under the Treaty it is illegal to, *inter alia*, dispose of or engage in sharing of nuclear weapons. Of the various reference dates relevant to obligations contained within the TPNW (such as the date of its adoption or the date of its entry into force), the critical date establishing *de jure* NWS under the NPT, 1 January 1967, is not one of them. As a result, for the purposes of the TPNW, the distinction between *de jure* and *de facto* NWS is irrelevant and only maintained here due to its significance as regards the NPT.

74. By reference to Articles 2(1)(b) and (c) as well as 4(1) and (4).

75. It is unclear whether this provision, contrary to others within the Treaty, thus envisages nuclear weapons that are not explosive devices, every pertinent reading of "or" should be informed by the prior "or other", there is another intended meaning, or the difference simply does not bear significance at all (or may represent an unintentional omission).

state.[76] In any event, at present, there are five NNWS states, namely Belgium, Germany, Italy, Netherlands and Turkey, which are known to fall within this category by virtue of "Sharing Agreements" concluded with the United States (Known Sharing States). Under these agreements between NATO allies, nuclear weapons are stationed on the territory of allied states, while physical possession and operational control remain with the United States.[77] Although the launch codes of and thus ability to deploy these weapons remain at the exclusive discretion of the President of the United States in peacetime, the United States has taken the position that such authority could permissibly be delegated to NATO command in times of general war. It has asserted that relevant conduct complies with the terms of NPT, Articles I and II, given that control is maintained in times of peace and that the Treaty would no longer prevail during a situation of armed conflict. Citing the work of Sir Ian Brownlie as Special Rapporteur of the International Law Commission on the Effects of Armed Conflicts on Treaties, Joyner has noted that the possibility of suspension or termination of the NPT under such conditions would be contingent upon the intention of the parties as evidenced at the conclusion of the Treaty.[78] A component of the arguable object and purpose of the NPT is to "prohibit the further spread of nuclear weapons, and thus limit the extent and severity of any nuclear exchange between belligerents". Transferring control over nuclear weapons to NNWS would arguably increase the extent and severity of an exchange. Thus, one might conclude that if the parties indeed intended to reserve the right to contravene the object and purpose of the NPT once hostilities had broken out that intention would be clearly reflected under the terms of the Treaty.

Moreover, it is also conceivable that unknown sharing takes place or that by the time the TPNW enters into force, new sharing will have been pursued (Future and/or Covertly Sharing States). While the Treaty is concerned with all Disarmed States, including such that have disarmed long before the TPNW was conceived, it does not contain any provisions that apply to states that once, but no longer, were the beneficiaries of sharing arrangements, such as Korea.[79]

2.1.4. Newly Disarmed States (NDS)

Similar to what has been illustrated above in the context of Article 2(1)(a),[80] Article 4(1) too refers to states that have disarmed by the time the Treaty enters into force (Disarmed States). One important difference is that Article 4(1) is limited in its application to states that disposed of nuclear explosive devices on the date the TPNW was adopted, 7 July 2017. As a result, for one, this category may include the five *de jure* NWS and four known *de facto* NWS if they do disarm in time. For another, it may apply to states which reveal that they were armed on the reference date and have since disarmed (Newly Covertly Disarmed States). It would also apply to Future Disarmed States, given that such would have acquired disposition after 7 July 2017. Contrary to Article 2(1)(a) the category does not include Known Formerly Armed States and states that were covertly armed but eliminated their programmes before the adoption of the TPNW (Historic (Covertly) Disarmed States).

76. This means that devices that are owned, possessed or controlled by, e.g. a non-state actor, would not be encompassed by the ordinary meaning of the phrase.

77. For the content of the following elaborations on sharing see Joyner, D.H. (2009), *supra* note 30, pp. 13-15 (with further references).

78. *Ibid*.

79. Kristensen, H.M. (2005) "The Withdrawal of U.S. Nuclear Weapons from South Korea", The Nuclear Information Project: Documenting Nuclear Policy and Operations, www.nukestrat.com/korea/withdrawal.htm (accessed 20 Dec. 2018).

80. *Supra* "2.1.1 Disarmed States".

2.1.5. States Unarmed on the Reference Date (SURD)

Article 3 governs obligations of states to which Article 4(1) and (2) do not apply, thus any party that is not a Newly Disarmed or Continuingly Armed State. Therefore, any state that disposed of nuclear weapons or nuclear explosive devices after 7 July 2017 and later becomes a party, will not be subject to this obligation (provided that the Treaty enters into force).

2.1.6. States Affected by Use or Testing (SAUT)

One set of obligations under Article 6(1) is relevant to such states that practise jurisdiction over individuals affected by nuclear weapons.[81] Article 6(2) refers to states that practise jurisdiction or have control over contaminated areas. Tests (or use) that may have caused contamination are known to have been carried out on the territory of *de jure* NWS[82] and states such as Algeria, Australia, DPRK, India, Japan, Kazakhstan, Kiribati, the Marshall Islands, Pakistan, Turkmenistan, Ukraine and Uzbekistan.[83]

2.1.7. States that have Used or Tested (SUT)

Employing yet another variation of the relationship between nuclear weapons and nuclear explosive devices ("or any other" as opposed to the otherwise used "or" and "or other"),[84] Article 7(6) mirrors Article 6 by stipulating a "responsibility" incumbent upon states that have used or tested. In addition to the five *de jure* and four *de facto* NWS,[85] South Africa has been suspected to have conducted a test ("Vela incident").[86]

2.2. Rights and Obligations under the TPNW

2.2.1. Rights under the TPNW

True to its name, the TPNW predominantly stipulates obligations rather than rights. Reference to existing "rights" is made on three occasions[87] within the comprehensive

81. Especially in light of the fact that the Preamble explicitly includes a reference to "hibakusha" (i.e. survivors of the Hiroshima and Nagasaki bombings), Japan would be an example of a state subject to this obligation if it became a party to the Treaty.
82. Mikhailov, V.N. (ed.) (1999), *Catalog of Worldwide Nuclear Testing*, Begell House, New York (https://web.archive.org/web/20140715015355/http://www.iss-atom.ru:80/ksenia/catal_nt/2.htm (accessed 20 Dec. 1018)).
83. UN Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination (2017), "Victim Rights and Victim Assistance in a Treaty Prohibiting Nuclear Weapons: A Humanitarian Imperative", UN Doc. A/CONF.229/2017/NGO/WP.14, adopted 13 Mar. 2017, para. 4. Interestingly, this paragraph, pertaining to "areas", includes a reference to "nuclear weapons or other nuclear explosive devices", while the prior provision refers only to the former (on the potential significance of this distinction, *supra* "2.1.1 Disarmed States").
84. *Supra* "2.1.1. Disarmed States" and "2.1.6 States Affected by Use or Testing".
85. CTBTO (n.d.), "Nuclear Testing 1945 – Today", www.ctbto.org/nuclear-testing/ history-of-nuclear-testing/nuclear-testing-1945-today/ (accessed 20 Dec. 2018).
86. CTBTO (n.d.), "Glossary", "Vela incident", www.ctbto.org/glossary/?letter=v&cHash=efd777666e (accessed 20 Dec. 2018).
87. Including such to "international human rights law" in preambular paragraph 8, a "[limited] right of parties to an armed conflict to choose methods or means of warfare" in preambular paragraph 9 and the right to peaceful use of nuclear energy (mirroring the language of NPT, Article IV(1)) in preambular paragraph 21.

preamble.[88] Once the Treaty has been implemented at the domestic level as envisaged by Article 5, further rights based upon it may be effected through national statutes.[89] The obligation under Article 6(1) (victim assistance), contains a reference to "applicable international human rights law", while being preceded by "in accordance with" and thus appears to reiterate existing rights.[90] The right of states parties to withdraw under Article 17(2), almost exactly corresponds to NPT, Article X(1) and is of similar procedural rather than substantive nature. Thus, the only genuine right stipulated by the Treaty is that contained in Article 7(2) granting each party a right to "receive assistance" "[i]n fulfilling its obligations under [the] Treaty". This right is limited by inclusion of the modifier "where feasible", which could arguably open it to a great variety of good faith feasibility concerns raised by a requested state party.[91] The right is particularly relevant in the context of remediating effects of use and testing, being embedded in[92] and following[93] relevant provisions.

2.2.2. Obligations under the TPNW

Though it does employ a greater variety of state "categories", obligations specific to a particular one are, as opposed to the NPT, rather the exception than the rule under the TPNW. Instead, the Treaty establishes one set of standards generally applicable to all parties, while accommodating the exigencies of parties not yet in a position to, or uniquely in a position to, meet those standards due to their involvement with various nuclear weapon or explosive device-related activities, in a clearly determined manner within a defined period of time.

88. While the preambular paragraphs of the NPT may generally (for a more nuanced division, see especially *supra* notes 48, 51 and 53) be grouped into such most relevant to non-proliferation (1-3), followed by peaceful use (4-7) and disarmament (8-12), thus emulating the structure of the Treaty, determining the relationship between the individual provisions of the TPNW and its preambular paragraphs represents a more awkward affair. Not all preambular paragraphs correspond with any particular treaty provision (such as paragraph 22, which focusses on gender equality or 23, devoted to education). Similarly, what might be considered the three main pillars of the Treaty – prohibition, elimination and remediation – intermingle within individual paragraphs.
89. On the non-self-executing character of the Treaty and the near identity of language in Articles 9 of the Ottawa (Mine Ban) and Oslo (Cluster Munitions) Treaties, see Rietker, D. and M. Mohr (2018), "Treaty on the Prohibition of Nuclear Weapons: A Short Commentary Article by Article", Swiss Lawyers for Nuclear Disarmament (SLND), www.ialana.info/wp-content/uploads/2018/04/Ban-Treaty-Commentary_April-2018.pdf (accessed 20 Dec. 2018), p. 23 citing the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (1997), 2056 UNTS 211, entered into force 1 Mar. 1999 and the Convention on Cluster Munitions (2008), 2688 UNTS 39, entered into force 1 Aug. 2010.
90. Because it proceeds to specify particular types or acts of assistance, it might be questioned whether such assistance must only be rendered as required by the existing right the provision under the Treaty elaborates upon and thus may serve to inform a more comprehensive understanding of a given right, or whether the provision even creates an independent and individual right.
91. Depending on the particular assistance sought, it may be possible to envisage settings where a requested state would be at pains to explain why it refused such assistance, if it could have been easily rendered and was highly important in light of the object and purpose of the Treaty. For instance, a requesting party seeking to draft national legislation implementing Article 5 by enacting prohibition statutes envisaged under Article 1 might request another state party to share information on its own legislation. The requesting state may well consider its right under Article 7(2) of the Treaty breached if no reasonable feasibility doubts are present as regards the requested state.
92. See Article 7(3) and (4) in particular.
93. Article 6.

All parties must disclose via declaration whether they dispose or disposed of, or benefitted from sharing of nuclear weapons or (other) nuclear explosive devices (Article 2).[94] Newly Disarmed States are subject to unique verification (Article 4(1)) and Continuingly Armed States to such disarmament (Article 4(2)), or Sharing States to pertinent removal (Article 4(4)) measures. Only States Affected by Use or Testing and States that have Used or Tested are subject to direct assistance and remediation obligations under Article 6.[95]

Finally, as regards safeguards, only States Unarmed on the Reference Date are subject to the maintenance of existing (Article 3(1)) and conclusion of comprehensive agreements (Article 3(2)), while Newly Disarmed States and Continuingly Armed States are required to conclude such agreements that are "sufficient to provide credible assurance" (Article 4(1) and (3)). Pertinent distinctions, appear to, for one, accommodate the terms of the NPT and, for another, may be interpreted to impose less specific but more stringent safeguards obligations upon Newly Disarmed States and Continuingly Armed States (see *infra* notes 236 *et seq*.). Thus, these provisions do not grant particular rights to a class of parties but might instead be considered to impose obligations commensurate with conduct involving nuclear explosive devices. These provisions too will be further analysed below. As a result, rather than first illustrating unique and then general obligations (as above in the context of the NPT), the following will first discuss general obligations prior to those applicable only to a particular "category" of parties.

2.3. Obligations of all parties

Article 1 reflects one of what may be considered the three key pillars of the Treaty: prohibition (along with elimination and remediation).[96] Defining the core prohibitions and substance of the Treaty, Article 1[97] denominates 21 nuclear explosive device-related[98] acts[99] divided into seven paragraphs, (a) through (g), which the parties

94. I.e. whether they may be considered Disarmed States, Continuingly Armed States or Sharing States.
95. Notwithstanding the co-operation obligation under Article 7(1), right under Article 7(2) and assistance obligations under Article 7(3) and (4). Contrary to the non-proliferation provisions under the NPT (Articles I and II), the assistance and remediation obligations under the TPNW do not exempt a category of states from an otherwise sweeping prohibition, but impose additional obligations that appear pragmatic considering unique conduct involving or affectedness by nuclear explosive devices.
96. Though these are all evidently interrelated, preambular paragraph 15 is explicit in clarifying the relationship between prohibition and elimination, citing a "legally binding prohibition" as a "contribution towards […] elimination".
97. Strictly speaking, the relevant provisions are contained within the one and only paragraph (1) of the article. Given that the Treaty itself, however, omits the paragraph when referring to its subparagraphs (see, e.g., Article 4(2) "[n]otwithstanding Article 1 (a)"), its provisions will be referenced herein accordingly.
98. Article 1 consistently uses the wording "nuclear weapons or other nuclear explosive devices", with the exception of the latter portion of paragraph (b) where reference is made to "such weapons or explosive devices". Due to the fact that the latter is preceded by the consistent wording earlier in the same sentence, "such" may be interpreted to refer to the earlier "or other" as well. As a result, Article 1 consistently employs the term nuclear explosive device, as encompassing nuclear weapons, which may therefore, where appropriate, be understood accordingly herein for the sake of simplicity.
99. To (a) develop [1], test [2], produce [3], manufacture [4], otherwise acquire [5], posses [6] or stockpile [7]; (b) transfer [8] or transfer control [9]; (c) receive transfer [10] or control [11]; (d) use [12] or threaten to use [13]; (e) assist [14], encourage [15] or induce [16]; (f) seek [17] or receive assistance [18]; (g) allow stationing [19], installation [20] or deployment [21]. These comprehensive and programmatic prohibitions, read together with the preamble of the Treaty (*supra* notes 87, 88, 143, 173, 175, 183 and 194), lend credence to the view that prohibition, along with remediation and elimination, constitutes one of the three pillars that together reflect the object and purpose of the Treaty.

undertake to "never under any circumstances" perform. Among the various implications of this particular wording, one of the perhaps most integral is that upon the legality of a threat or use of nuclear weapons in the context of an "extreme circumstance of self-defence, in which the very survival of a State would be at stake", which was neither confirmed nor denied by the ICJ in its Nuclear Weapons Advisory Opinion.[100] Between the parties of the TPNW, such conduct is definitively prohibited. It has also been posited that the phrase extends prohibitions to acts versus non-parties.[101] There is an important distinction to be made here, between obligations being owed to third states and conduct versus third parties being prohibited between the parties of the Treaty. Though treaties do not, in principle, create rights or obligations for third states pursuant to the *pacta tertiis* rule codified in VCLT, Article 34, where the parties to a treaty do intend to confer such rights upon third states (in the case at hand, for instance, one might imagine a possible right of third states versus the parties of the TPNW for the latter to refrain from prohibited acts), or even the international community as a whole (rights *erga omnes*), the agreement of such states is presumed (as envisaged by VCLT, Article 36(1)). Rights thus conferred may not be unilaterally revoked unless so intended beforehand (VCLT, Article 37(2)). As a result, in that setting, prohibitions under TPNW, Article 1 would not only be owed to the parties of the Treaty but third or even all states. The function of the introductory clause (i.e. "never under any circumstances"), however, seems to be of a different nature. It does not appear to confer rights or obligations upon third states. Instead, it indicates that the prohibitions under the following TPNW, Article 1 operate with regard to acts of a state party versus third states and, for instance, the involvement of states parties in otherwise perfectly permissible acts between third states.[102]

The prohibitions themselves may be roughly grouped into five categories: i) acquisition and possession;[103] ii) transfer;[104] iii) use;[105] iv) support;[106] and v) sharing.[107] Transfer comprises both direct and indirect acts,[108] while sharing extends beyond territory to places under jurisdiction or control of a party[109]. Support is tied to three qualifiers: "in any way",[110] "anyone" and "any activity prohibited to a State Party under this Treaty".[111] The last two qualifiers are of particular interest and raise a series of questions. Is reference to "anyone" meant to extend the applicability of this obligation to acts taken versus third states and perhaps even non-state actors as well (insofar as this is not already the case by virtue of the introductory phrase "never under any circumstances")?[112] If "never under any circumstances" does not comprise both "anyone" and "in any way", do paragraphs (e) and (f) (as well as perhaps (b) "any recipient")[113] then support an interpretation whereby the other provisions are not

100. Nuclear Weapons Advisory Opinion, *supra* note 1, p. 37, para. 105.
101. Rietker D. and M. Mohr (2018), *supra* note 89, p. 13.
102. See text at *infra* notes 111 *et seq*. in this regard.
103. For the purpose of simplicity, the acts of developing, testing, producing and manufacturing might be understood as such conducted within a process of acquisition, while stockpiling implies possession (TPNW, Article 1(a)).
104. This includes transferring (control over) devices or receiving them (or it) (*ibid*., (b) and (c)).
105. Including the threat of use (*ibid*., (d)).
106. Comprising assistance (as well as seeking or receiving it), encouragement or inducement (*ibid*., (e) and (f)).
107. Limited to the passive acts of allowing stationing, installation or deployment (*ibid*., (g)).
108. *Ibid*., (c) and (d).
109. *Ibid*., (g).
110. "[I]n any way" is also employed by the corresponding second clause of NPT, Article I.
111. TPNW, Article 1(e) and (f).
112. See text at and after *supra* note 101 and preceding *infra* note 122 for a more likely interpretation in light of the corresponding provision under the NPT.
113. See *infra* note 121 and text after *infra* notes 124 *et seq*.

intended to operate versus third parties? Would it not have been more appropriate to refer to "any State Party" or simply omit this qualifier, as the other paragraphs do, if no such effects were desired? Reading the relevant provisions of the NPT together with those of the TPNW, it appears probable that these qualifiers serve the purpose of extending the prohibitions under the NPT and introducing related new ones by using wider terms than those in the corresponding NPT provisions or compensating their absence. In this context it should be kept in mind that there have been controversial instances of NPT NWS parties trading components between one another (such as between the United Kingdom and the United States),[114] or engaging in conduct with third states that may have been prohibited between the parties of the Treaty (such as supply arrangements between India and the United States).[115] Moreover, rather than inferring that the absence of these qualifiers in other paragraphs of TPNW, Article 1 should limit their operation versus third parties, the better view might be to conclude that the interpretation would conflict with the context of paragraphs (e) and (f) within Article 1 (such as the introductory clause),[116] the further provisions of the Treaty (including Article 4 "[t]owards total elimination of nuclear weapons"), its object and purpose (which likely includes total elimination of nuclear weapons) and a good faith interpretation (considering that it would be unreasonable to suggest that the parties desired to reserve the right of taking acts in contravention of the object and purpose of the Treaty, so long as they were performed versus third states). Therefore, these qualifiers should be read as additional, even if redundant, clarification, rather than inviting adverse inference. In any event, the final qualifier is the perhaps most significant, given that it extends the operation of the support prohibition not only to acts listed throughout the Article, but prohibitions under the entire Treaty (though the remainder of the Treaty does not contain any further explicit "prohibition(s)" as opposed to further obligations). The phrase "any activity prohibited to a State Party under this Treaty" is, furthermore, most likely not meant to limit applicability to instances where prohibitions under the Treaty undoubtedly operate, namely between the parties. Instead, it should be understood as clarifying that parties to the Treaty may not participate in (support) acts between third parties that may be perfectly legal between those parties, but would be prohibited under the Treaty (such as, perhaps, the stationing of nuclear weapons (which Article 1 of the Treaty prohibits under paragraph (g))). Thus, the provision is arguably best interpreted as prohibiting support in any act between two third states that *would* be prohibited *if* the states involved were parties.[117] It does not appear to create obligations owed *erga omnes*. Further questions of state responsibility aside, one might otherwise envisage a setting where, for instance, an obligation would be owed to non-state party A by state party B not to induce non-party C to allow stationing on the territory of the latter by non-party D. Rather, if state party B engaged in such acts, only other parties to the Treaty would be in a position to perhaps invoke responsibility (considering that the character of the obligation is of an integral rather than bilateral nature, it would seem reasonable to infer that any party could invoke a relevant breach pursuant to ARSIWA, Article 42(b)(ii),[118] thus basing themselves upon an obligation owed *erga omnes partes*.With a view to compatibility, TPNW, Article 1 as a whole evidently invites comparison with NPT, Articles I and II. The following will thus contrast the corresponding provisions, moving from most similar components to those more unique under the TPNW. This approach is intended to clearly elucidate where substantive provisions may overlap.

114. See Joyner, D.H. (2009), *supra* note 30, p. 11.
115. See Squassoni, S. (2010), "The U.S.-Indian Deal and Its Impact", Arms Control Today, www.armscontrol.org/act/2010_07-08/squassoni (accessed 20 Dec. 2018).
116. See text at and after *supra* note 101.
117. *Ibid*.
118. ARSIWA, *supra* note 12.

Though it may, at first glance, seem unnecessary to include a provision prohibiting the transfer of (control over) nuclear explosive devices under a treaty, which already prohibits acquisition and possession, there are good reasons to include it. For one, the TPNW is open to states that do (until further time-bound measures are taken) dispose of nuclear explosive devices.[119] Despite that provision clarifying that it applies "[n]otwithstanding Article 1(a)", there is a need to stipulate that these states may not transfer (control over) such devices prior to disarmament. For another, the provision also establishes one standard that is (with the exception of the aforementioned time-bound accommodation under Article 4(2)) contrary to that of the NPT, applicable to all parties and thus also possible non-NPT TPNW parties that may possess control over nuclear explosive devices. Though there is no known instance of this being the case, there is one significant gap both within the NPT and the TPNW worth noting: that of possessing control over nuclear explosive devices prior to becoming a party to the treaties. Given that both, with regard to control, merely prohibit transferring or receiving it, a state that already has control over nuclear explosive devices, but is never involved in a transfer, might be considered to comply with the ordinary meaning of the treaties (though this view may hardly withstand a comprehensive interpretation in good faith, considering the context and especially the object and purpose of the TPNW, which encompass elimination).

Article 1(b) (active transfer) incorporates the exact wording of the first clause of NPT, Article I, with two significant differences. First, the relevant provision of the NPT is an obligation of NWS only, while that of the TPNW is binding upon each party. Second, the obligation under the TPNW is further widened by the introductory qualifier.[120] Thus, the obligation under the TPNW is both wider in terms of its substance and the circle of states to which it may apply. Similarly, Article 1(c) (passive transfer) too is modelled after the corresponding first clause of Article II of the NPT. Though it may seem negligible, contrary to its NPT, Article II and TPNW active transfer counterparts, this provision does not include a reference to the other party engaged in a transfer (see NPT, Article II "any transferor whatsoever"), which also produces the modified and more compact structure of the provision. This circumstance may arguably give rise to an unlikely argument that the provisions of the NPT extend to transferors not captured by the TPNW.[121] Compared with active transfer, passive transfer provisions under the TPNW too are subject to a wider circle of potential

119. On Continuingly Armed States see Article 4(2).

120. "[U]ndertakes never under any circumstances to", see text at and after *supra* note 99. Though TPNW, Article 17(3) removes all doubt, the phrase may be particularly relevant as regards transfer of control during an armed conflict. NPT states presently engaging in sharing of nuclear weapons (see, e.g., *supra* "2.1.3 Sharing States") take the view that the Treaty would be rendered inoperable in such times. Notwithstanding the TPNW withdrawal clause, by incorporating the introductory reference in TPNW, Article 1, the pertinent and other similar interpretations would be even more difficult, if not impossible, to convincingly uphold.

121. It may appear remote to interpret the Treaty as intending to thus permit the possibility of receiving (control over) nuclear explosive devices from certain transferors. The introductory qualifier would seem to pre-empt any such interpretation, but for the fact that paragraph (b) of TPNW, Article 1 does include a similar specification. If that provision had simply left out the reference to "any recipient whatsoever", there would be even less reason to question the scope of paragraph (c). Further interpretation of the provision may well dissuade these concerns (see in particular text after *infra* note 123 *et seq*. and on a more general note, *supra* notes 111 *et seq*.). In any event, for the purposes of the present analysis, at this stage, it would suffice to establish that the objective provisions under the NPT and TPNW either establish the same standard (as regards the parties bound by it), or (an, especially in light of the introductory qualifier at the outset of TPNW, Article 1, unlikely theory) that the NPT exceeds what is required under the TPNW in terms of the scope of possible transferors.

parties, in light of NPT, Article II being applicable only to NNWS. In terms of substance, the introductory qualifier supports a presumption of a wider obligation under the TPNW as well, though the absence of a reference to "any transferor whatsoever" may provide grounds for pause in one particular respect. Whether or not these observations disclose a conflict with the NPT will be analysed below.

In relation to active support, Article 1(e) ventures even further from its complementary provision under the second clause of NPT, Article I. Both pertain to the same secondary (supporting) acts (to "[a]ssist, encourage or induce", "in any way"). Yet, they differ as regards the circle of states potentially bound by the obligation (only NWS versus all parties to the TPNW), the "principal" (only NNWS versus "anyone") and primary acts (to manufacture or acquire (control over) versus all TPNW prohibitions). When read in parallel with the corresponding provision of the NPT, this reference to "anyone", might be most simply interpreted as intended to "replace" the pertinent corresponding limitation to any NNWS in the second clause of NPT, Article I with all parties of the TPNW. Due to the fact that the drafters did not choose that term, it would seem more appropriate to understand this provision as prohibiting support in primary acts performed, not only by *any* state (including non-parties), but literally, *anyone*, including non-state actors.[122]

Further compounded by the introductory clause,[123] the TPNW thus stipulates significantly more stringent obligations in terms of active support than the NPT. Both treaties are also limited to the same secondary acts of passive support ("[s]eek or receive any assistance") under TPNW, Article 1(f) and the final clause of NPT, Article II, respectively. This provision too, is applicable to all states parties (as opposed to merely NNWS), defines a supporting entity (unspecified within the NPT versus "from anyone" under the TPNW) and encompasses further reaching primary acts (merely to manufacture under the NPT versus all TPNW prohibitions). Compared to the provision on active support, the use of the term "anyone" in this context, might be considered to inform a slightly different interpretation than that of Article 1(e) read in conjunction with the second clause of NPT, Article I alone. As illustrated above, in the context of active support, reference to "anyone" may be considered to "replace" the limitation contained in NPT, Article I to NNWS. Yet, NPT, Article II contains no such limitation. While the term thus might be considered to have been included simply for the purposes of coherence or removing doubt, it appears sensible to consider the implication of its absence. If it were only paragraph (f) that specified which state or entity the provision were relevant to as regards an act of support, but paragraph (g) omitted such reference, this would invite an interpretation whereby seeking or receiving support from certain entities might not be prohibited, while furnishing them with it would be. As a result, it appears that inclusion of the reference to a supported counterpart ("anyone") in TPNW, paragraph (e) may be understood to remove all doubts in light of the corresponding limitations under NPT, Article I, and its inclusion under TPNW, paragraph (f) thus prompted by coherence and pre-empting adverse inference. As a result, passive support is more stringent under the TPNW in four respects similar to those illustrated above regarding active support.

Article 1(a) of the TPNW is drafted in a similar manner to the provisions on transfer and support, building upon the foundations of the NPT and broadening them. In terms of substance, contrary to the NPT, which prohibits only to "manufacture or otherwise acquire", the TPNW adds prior, further and subsequent acts. Prior or in addition to

122. For a discussion on the breadth of such an understanding, other possible interpretations and implications upon third states see *supra* notes 111 *et seq*.

123. See text at and after *supra* note 99 and text at *supra* notes 111 *et seq*.

acquisition, these include development,[124] testing[125] and production.[126] Unlike the NPT, the TPNW also prohibits possession and the act of stockpiling.[127] The NPT was apparently drafted on the premise that all states that possessed nuclear weapons at that time would be subject to a separate class of obligations (those of NWS, including Article I, limited to prohibiting transfer and support). Because no other state possessed such weapons, all states *defined* as (potential) NNWS, did in fact, at the time, match that definition. Thus, there may, at the time, have been no need to include a prohibition on possession and NPT, Article II, applicable only to NNWS, envisaged merely the act of acquiring but not possessing. Pursuant to the ordinary meaning of Article II, any state that now possesses nuclear weapons, but would take no further measures towards manufacture or further acquisition, could become a party to the Treaty without breaching any explicit prohibition under Article II. That would not be possible (beyond a defined deadline)[128] under TPNW, Article 1(a). Perhaps most importantly, paragraph (a) is binding upon all parties (as opposed to NNWS only under the second clause of NPT, Article II). Generally speaking, rather than perpetuating what has been characterised as the "grand bargain" of the NPT, namely all NNWS foregoing nuclear weapons in exchange for the disarmament of NWS,[129] the TPNW sets one comprehensive prohibition standard. Both the stipulation of two classes of obligations for two classes of states and the following lacking implementation of the disarmament obligation, while non-proliferation has been upheld, have been denominated as evidencing "double standards".[130] It should still be pointed out that neither NPT, Article VI nor TPNW, Article 1 contain an (absolutely) unequivocal disarmament obligation.[131] While the room left for interpretation under the NPT disarmament obligation has caused NWS to defer significant progress for an extended amount of time, TPNW, Article 4(2) is drafted in a manner ensuring that failure to disarm within a limited period will unequivocally breach the terms of the Treaty.[132] Overall, the TPNW thus extends the acquisition prohibition envisaged by the NPT to several related acts, thus filling gaps, while establishing one universal standard without lasting[133] exceptions.

124. Development might be understood as referring to an early stage, which may precede a decision to produce and thus could include preliminary research.
125. Mentioned only in the tenth preambular paragraph of the NPT.
126. Production constitutes a wider term than manufacturing and thus may include intangible acts, such as developing software, which fall short of manufacturing. Stockpiling itself is mentioned only in NPT, preambular paragraph 11, where the liquidation of stockpiles is cited as a component of future disarmament envisaged by paragraphs 8 through 12.
127. Though stockpiling does imply possession, it requires an additional act, namely continuing to add further devices to an arsenal. Under Article 4(2), the distinction may be relevant to Continuingly Armed States, which, due to the "notwithstanding" exception pertaining to Article (a), would not be in breach of the Treaty for possession until the relevant elimination deadline had lapsed. If, such a state did, however, during such time continue to stockpile, that act may constitute a breach.
128. See *supra* note 127.
129. See, e.g., Joyner, D.H. (2013), *supra* note 30, p. 76.
130. See, e.g., ElBaradei, M. (2012), *The Age of Deception: Nuclear Diplomacy in Treacherous Times*, Picador, London, p. 236; Bunn, G. (2006), "The Nuclear Nonproliferation Regime and Its History" in G. Bunn, C.F. Chyba and W.J. Perry (eds.), *U.S. Nuclear Weapons Policy: Confronting Today's Threats*, Brookings Institution Press, Washington, DC; McCgwire, M. (2005), "The Rise and Fall of the NPT: An Opportunity for Britain", *International Affairs*, Vol. 81, No. 1, p. 121.
131. See *infra* note 242 on the obligation to conduct and conclude disarmament negotiations under the NPT.
132. See text at *supra* notes 137 *et seq*.
133. Article 4(2).

Article 1(g) of the TPNW stipulates an obligation not to "[a]llow any stationing, installation or deployment",[134] terms upon which the NPT is silent.[135] Several NPT parties have engaged in nuclear sharing arrangements, citing a disputed interpretation of the Treaty.[136] The corresponding provision of the TPNW pre-empts any such conduct by explicitly prohibiting it. It clarifies that relevant acts are illegal not only on the territory, but also at any place under the jurisdiction or control of a party. This may include disputed or occupied territories beyond the territory of a state,[137] or any other areas where a state practises effective control. Given that this is the only paragraph that contains any such territorial specifications, similar considerations may apply as regards those expressed above in relation to other unique qualifiers (such as "anyone" or "any activity").[138] Specifically, the absence of such characterisations in other paragraphs begs the question whether it would be prohibited under the Treaty to, for instance, develop nuclear explosive devices in places where control is practised by a party but that lie outside its territory. In light of considerations similar to those illustrated above by reference to the introductory qualifier ("never under any circumstances"), the further context, object and purpose of the Treaty and also an interpretation in good faith, it would seem difficult to uphold such a reading.[139] The use of the term "any place" may provide reason to question whether the Treaty does, in fact, envisage application to areas that are not the territory of any state, for example (global) commons (such as the high seas, the seabed, the polar regions or outer space). In any event, it might also be doubted whether a state, in principle, enjoyed the prerogative to "allow" such conduct under general international law, in places that neither constituted its territory, nor were subject to its jurisdiction or control.

134. Allowing stationing may be understood to comprise the act of even temporarily permitting nuclear explosive devices to be positioned with the permission of a state party. Though the Treaty does not define the term, other treaties, such as the Treaty of Pelindaba establishing the African NWFZ, define stationing as "implantation, emplacement, transport on land or inland waters, stockpiling, storage, installation and deployment" (Article 1(d), Treaty on the Nuclear-Weapon-Free Zone in Africa (1996), 35 ILM 698, entered into force 11 Apr. 1996 (Pelindaba Treaty)). Installation goes further, being of a more permanent nature, such as being stored within a base. In the context of Article IV of the Outer Space Treaty, "installation" has been interpreted to refer to "more than just sheer presence … possibly presence coupled with some sense of permanence" (Gorove, S. (1973), "Arms Control Provisions in the Outer Space Treaty: A Scrutinizing Reappraisal", in *Georgia Journal of International & Comparative Law*, Vol. 3, No. 114, University of Georgia, Athens, Georgia p. 117, citing Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (1979), 1363 UNTS 3, entered into force 11 July 1984). Deployment may be understood to constitute the act of removing a device from storage and bringing it into a state where it can be used. Specifically, it has been interpreted to mean "keeping … warheads that contain nuclear explosives attached to delivery vehicles, ballistic missiles or aircraft, and having them ready to be used to attack a designated target" (Rajaraman, R., M.V. Ramana and Z. Mian (2002), "Possession and Deployment of Nuclear Weapons in South Asia: An Assessment of Some Risks", in *Economic and Political Weekly* (22 June, 2002)).
135. Though falling short of transferring a device or shifting control over it, these acts of sharing have been interpreted as prohibited by the NPT (see *supra* "2.1.3 Sharing States").
136. Sharing is currently known to take place between the United States and Belgium, Germany, Italy, Netherlands and Turkey (*ibid.*). The position of these states is that NWS, in this case the United States, maintain control over these weapons and that they have thus not been "acquired" by the receiving state. Further, these states consider that the NPT would not operate once a relevant armed conflict has erupted and thus control could be transferred in such a situation without breaching the terms of the NPT. Other states and experts dispute this interpretation (*ibid.*).
137. See, e.g., *Loizidou v. Turkey*, no. 15318/89, ECHR 1996-VI, para. 52; *Legal Consequences of the Construction of a Wall in the occupied Palestinian territory, Advisory Opinion, ICJ Reports 2004*, p. 136, para. 78.
138. See text at *supra* notes 111 *et seq*.
139. *Ibid*.

Representing a core tenet and a significant component of the object and purpose of the TPNW, Article 1(d) prohibits use and threatening it. The NPT does contain a reference to the threat or use of force in general within the final paragraph of its preamble, but lacks any nuclear explosive device-prohibition. There are two relevant aspects in particular, one pertaining to general international law and another, specific to the NPT, which the TPNW sets out to address. First, the prohibition of the threat or use even as an ultimate act of self-defence, left in abeyance by the ICJ.[140] Second, the operability of treaties during an armed conflict.[141] The former is definitively prohibited by the introductory clause of Article 1[142] and the latter solidified with respect to the TPNW by Article 17(3), foreclosing withdrawal from the Treaty by belligerents.[143] In these two respects the TPNW proceeds with the pattern of adding to the NPT, expressly banning what was previously merely implied or left out.

Yet, there is one literal, and taken at face value, undeniable, conflict between the TPNW prohibition of using nuclear explosive devices and the NPT: the right to obtain, or, as the case may be, share the benefits of peaceful nuclear explosions pursuant to NPT, Article V. The latter appears difficult if not impossible to harmonise with the prohibition treaty.[144] The reconcilability of these provisions will be subject to further detailed analysis below.

Upon subjective entry into force, pursuant to Article 2, every state party must declare to the depositary whether it disposed or still disposes of nuclear weapons or (other) nuclear explosive devices,[145] or currently benefits from sharing.[146] The NPT does not prohibit disclosing such information, meaning that this provision should be unobjectionable with respect to the NPT.

Two of the most far-reaching provisions under the Treaty are the general (paragraph (1)) and specific (paragraph (2)) national implementation obligations under Article 5. Designating nature ("legal, administrative and other"),[147] type ("including

140. See text at *supra* note 100.

141. See *supra* "2.1.3 Sharing States" and notes 120 and 136 on the position of the United States, whereby the outbreak of armed conflict would render the NPT inapplicable and thus transferring control over nuclear explosive devices permissible.

142. See text at and after *supra* note 99 on the implications of the terms "never under any circumstances" in the introductory clause of the provision as well as the relevant ICJ Advisory Opinion.

143. Similarly, in addition to referencing several specific principles (preambular para. 9) the preamble reiterates that such use would conflict with the law of armed conflict (preambular para. 10) and also be "abhorrent to the principles of humanity" (i.e. conflict with the relevant general principle known as the "Martens Clause") (preambular para. 11). In addition, the "purposes and principles of the Charter of the United Nations" in general (preambular para. 1), thus including the prohibition on the use of force pursuant to Article 2(4), and that prohibition specifically (preambular para. 12) are referenced in the preamble as well.

144. On Article V see *supra* note 41.

145. While paragraph (a) (Disarmed States) employs "or", the following two paragraphs use the common wording "or other" (see *supra* notes 45 and 98 on the significance of these differences).

146. Together with Article 4(1), (2) and (4), Article 2(1) denominates the most significant categories of states under the Treaty. By self-identification via declaration, paragraphs (a) (Disarmed States), (b) (Continuingly Armed States) and (c) (Sharing States) indicate the method for acquiring the information necessary to class states for the purpose of determining the applicability of Article 4 (elimination and safeguards) and on that basis, Article 3 (safeguards).

147. In addition to penal statutes sanctioning the participation (on the question of whom, see text at *infra* notes 150 *et seq*.) in relevant acts, further measures may include such as administrative statutes on import or export controls, reporting or licensing requirements.

penal sanctions"),[148] end ("prevent and supress"),[149] scope ("any activity prohibited to a State Party under this Treaty") and subject ("persons or on territory under its jurisdiction or control") of measures, the Article stipulates an obligation to comprehensively transform the Treaty at the domestic level. Taken at face value, this provision, pertaining to persons and territory, may unfold particularly extensive and also controversial effects. First, it should be kept in mind that it entails an obligation to take measures where a party does not enjoy jurisdiction (i.e. "or control").[150] Second, where a state does enjoy jurisdiction, it is important to distinguish between that to prescribe, adjudicate and enforce. The acts prohibited under the Treaty constitute such that are typically undertaken by and indeed often can only be undertaken by states. As a result, any state that would claim jurisdiction to adjudicate and enforce these prohibitions in its national courts may well do so only in conflict with the sovereign immunity of the affected state. Even if measures were carefully limited to such that do not interfere with the immunity of other states, given that measures must target persons "under […] jurisdiction", one further question would be that of extraterritorial jurisdiction where a state does not practise control. States regularly do seize jurisdiction over various settings exhibiting the customarily requisite territorial link, including over acts committed by their nationals, whether at home or abroad (active personality), persons committing acts directed against them (passive personality), facts pertaining to essential state interests (protective principle) or causing territorial effects (effects doctrine). In certain cases, states also seize jurisdiction over facts that do not exhibit any territorial link (which they are occasionally mandated to do by Treaty) (universal jurisdiction). All these are jurisdictional principles that may go beyond territorial jurisdiction. As a result, when a state has committed itself via the TPNW to take measures pertaining to persons under its jurisdiction, is it then required to analogously apply the jurisdictional principles to which it subscribes to facts that are relevant to the prohibitions under the Treaty? The provision may well be read as requiring a state to seize jurisdiction over its nationals, if they are engaged in conducting nuclear tests abroad, or if these affect the nationals of the seizing state.

Two subjects not encompassed by the Article, due to the fact that they neither constitute territory nor persons, are sea and air vessels. Although states occasionally subscribe to the fiction that vessels of their nationality constitute floating or flying "territory", it remains a fiction. Exempting any of the prohibited acts from such vessels under the jurisdiction of a state party would appear extremely difficult to establish in light of the object and purpose of the Treaty, but it nevertheless may represent a challenge to identify the relevant textual foundation. For these and other reasons, Article 5(2) in particular may well be subject to further comprehensive interpretation.[151]

148. Manifestly referring primarily to fines and incarceration (or other sanctions appropriate within the national legal system of the respective state party).

149. In addition to measures mentioned above (*supra* notes 147 and 148), the collection of information will likely be essential to achieving prevention (including, for instance, intercepting communication). Especially with a view to suppression, furnishing courts, prosecutors and other authorities with powers enabling them to issue and enforce search warrants, injunctions, expropriations and similar measures may represent those envisaged by the Treaty.

150. See text at *supra* notes 137 *et seq*. on questions of extraterritorial application.

151. On the jurisdiction of states in general see, e.g., Oxman, B.H. (2017), "Jurisdiction of States", in R. Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law* (Online Edition), Oxford Public International Law.

As illustrated above, the relevant "prohibitions" may well be limited (extensive as they are) to those enumerated in Article 1.[152] Presumably, the provision operates under the notion that the state itself is already bound by the prohibitions versus the other state parties at the international level and thus would primarily enact the relevant measures in an effort to prevent and suppress acts that are not taken at the behest or with the knowledge of the state. At the same time, given that many of the prohibitions of the Treaty do pertain to typically sovereign acts, the Treaty might, in principle, also require the enactment of measures that sanction the involvement of government officials in any relevant conduct. In this context, the perhaps most important historic example of note is that of Mr A.Q. Khan, known to have assisted several states in their clandestine nuclear activities, which may have been partially known to government officials.[153] Relevant national statutes under the TPNW would thus most likely seek to sanction both such actions as those undertaken by Mr Khan, as well as those of any government officials involved.

To make the implications of the provision tangible, one might, for instance, imagine an official of state A[154] sending an e-mail that contributes to assisting (Article 1(e)) with the stationing (Article 1(g)) of nuclear weapons controlled by state B while on the territory of TPNW-party C.[155] Another scenario may involve a scientist of state D who runs a computer simulation in the context of preparing (Article 1(e)) a test (Article 1(a)) later performed in state E while visiting TPNW-party F. As elaborate as the requirements of the provision may be, the inclusion of the word "appropriate" at the outset may well suffice to dissuade most reasonable concerns. The term is of decisive importance for the operation of the provision and the Treaty as a whole. For one, it may be understood as permitting delays and exceptions for Continuingly Armed States that have become parties to the Treaty but are yet to disarm.[156] For another, it reserves the high measure of discretion necessary to ensure that the provision may be implemented in a fashion tailored to the exigencies of the domestic legal order and unique set of international rights and obligations of a state party. Especially in light of concerns pertaining to sovereign immunity, seizing jurisdiction extraterritorially or sanctioning conduct by government officials,[157] this qualifier may well be of decisive importance. Yet, it also bears the danger of rendering the degree of national discretion excessively broad, leaving too much room for interpretation of what, in each individual case, is considered "appropriate" and the final determination of whom it is subject to. This question too will be gauged for its interference with the terms of the NPT.

In addition to a right (paragraph (2))[158] and an obligation specific to certain states only (paragraph (6)),[159] Article 7 contains three obligations binding upon all parties: to co-operate in the implementation[160] of the Treaty (paragraph (1)) and provide

152. See text at *supra* notes 111 *et seq.*, including remarks on the interpretation of the phrase "prohibited to a State Party under this Treaty".

153. See, e.g., Coppen, T. (2015), *supra* note 30, p. 14.

154. Being a state engaged in nuclear sharing, e.g. having nuclear weapons that it does not control stationed on its territory.

155. See on these implications, text at *supra* notes 150 *et seq*.

156. See Article 4(2).

157. See text at *supra* notes 150 *et seq*.

158. See *supra* note 91.

159. Article 7(6).

160. As illustrated above, one particular instance of co-operation might be that rendered in the context of national implementation of the Treaty as required by Article 5 (see *supra* note 91). Most importantly though, the co-operation obligation extends to such required in the context of assistance and remediation pursuant to Articles 6 and 7.

assistance[161] to "States Parties affected by"[162] (paragraph (3)) as well as victims of (paragraph (4)) testing[163].[164] It also specifies particular avenues through which assistance may be provided (paragraph (5)). Nothing within the NPT prohibits providing co-operation and assistance to states or persons affected by testing.[165] Regarding NPT, Article V, it may seem paradoxical that a state would first be obliged to provide a nuclear explosive device to a state and then also assist in alleviating effects of its use.[166] Questions pertaining to the operation of NPT, Article V notwithstanding, these terms would not conflict.

2.4. *Obligations applicable to distinct parties*

As illustrated above, the TPNW does contain several provisions that are uniquely applicable to certain categories of states by virtue of their conduct involving, or affectedness, by nuclear explosive device-related activity.[167] These will be further illustrated and tested for conflicts with the NPT below.

2.4.1. Obligations of Newly Disarmed States (NDS)

Constituting the core provision applicable to Newly Disarmed States, Article 4(1) stipulates an obligation to negotiate,[168] conclude[169] and maintain[170] a safeguards[171]

161. Assistance provided to victims is not further specified, while such versus affected parties is designated as "technical, material and financial". Both assistance obligations are mitigated by the use of the terms "in a position to do so". Though the assistance obligations under Article 7(3) and (4) are likely not only (see *infra* note 164) relevant to Article 6, they certainly do largely correspond with one another. Thus, read together, Article 6 may further inform what kind of assistance specifically states should render under Article 7. Whether or not a particular state will be "in a position to" render a given act of assistance in a certain situation is subject to interpretation and likely to afford assisting states a wide margin of discretion.
162. With regard to use, this provision would operate, for instance, for the benefit of the State of Japan, or with regard to testing, the Marshall Islands (if these states were parties to the Treaty). Considering that more than 2 000 nuclear tests have been carried out across the globe, a variety of states might be considered "affected" (see *supra* note 83).
163. While the obligation under paragraph (2), pertaining to states parties is limited to effects of use or testing of nuclear weapons only, under paragraph (3), the obligation relevant to victims extends to other nuclear explosive devices as well.
164. Though the preceding Article 6 does also distinguish obligations relevant to areas or individuals affected by testing, the wording of the corresponding provision differs. This means that Article 7(3) ("States affected by") may not be exclusively relevant to Article 6(2) ("areas under its control or jurisdiction contaminated") and Article 7(4) ("victims") not congruent with Article 6(1) ("individuals … affected").
165. If other provisions of the TPNW did require a (certain) party to take acts that conflicted with the NPT and a second state co-operated in that regard, the co-operation obligation too might be considered problematic by perhaps widening the scope of conflicting provisions.
166. Due to the fact that TPNW, Article 7(3) refers only to nuclear weapons but not nuclear explosive devices (see *supra* note 163), it would not operate with regard to peaceful nuclear explosions envisaged by NPT, Article V. The opposite is true for TPNW, Article 7(4).
167. See, e.g., *supra* "2.1. Categories of States Parties to the Treaties" and "2.2.2 Obligations under the TPNW".
168. Newly Disarmed States are required to commence negotiations within 180 days of subjective entry into force of the TPNW.
169. Safeguards agreements of Newly Disarmed States must enter into force within 18 months of subjective entry into force of the TPNW.
170. Safeguards agreements concluded by Newly Disarmed States under Article 4(1) represent a minimum requirement under the provision and are without prejudice to future more stringent agreements.
171. Such an agreement must be "sufficient to provide credible assurance" regarding the absence of any undeclared and non-diversion of declared material or activities.

agreement with the IAEA and co-operate with an authority[172] that verifies disarmament. The latter will represent a newly-created authority and practise a function that the NPT itself did not yet enshrine, but already envisaged.[173] Nothing in that agreement would prohibit co-operating with an authority that verifies the elimination of relevant programmes. In terms of safeguards, the language of the TPNW does differ from that within the NPT. Whether or not this may represent grounds for conflict will thus be examined below. Additionally, pursuant to Article 4(5) Newly Disarmed States must submit a report at each review conference on their progress towards implementing Article 4(1).

2.4.2. Obligations of Continuingly Armed States (CAS)

For the purpose of achieving universal prohibition, the TPNW performs a balancing act between setting a single standard for all states parties and accommodating those that are not yet in a position to comply with those standards. The cornerstones of this approach are paragraphs (2) and (3) of Article 4, which set out an elimination road map for states that dispose of nuclear weapons or other nuclear explosive devices when the Treaty enters into force.[174] Paragraph (2) requires Continuingly Armed States to "immediately remove [such devices] from operational status",[175] and "destroy them as soon as possible" though no later than a deadline[176] envisaged by a disarmament plan,[177] submitted within 60 days after entry into force of the Treaty, further negotiated and then approved by the parties.[178] Once a Continuingly Armed State has fully implemented its disarmament plan (3), it must have begun negotiations on a safeguards agreement[179] with the IAEA, which it then concludes[180] and further maintains.[181] After all of these obligations have been fulfilled, Continuingly Armed States (by then no longer being such) must submit a final declaration to such end. These obligations, envisaged by Article 4(2) and (3) are equally subject to progress

172. Article 4(6) envisages that the parties designate an authority (or several authorities) to negotiate and verify elimination of nuclear-weapon programmes.

173. NPT, Article VI and its 11th preambular paragraph both reference "general and complete disarmament under strict and international control". That phrase is reiterated by preambular paragraph 16 and once more in the context of specifically "nuclear" disarmament in preambular paragraph 17 of the TPNW. Moreover, preambular paragraph 15 clarifies that the parties are acting towards "verifiable" elimination. These references to control and verification functions may be understood as being practised by the international authority that the Treaty envisages.

174. See Article 1(a) on the prohibition on acquisition and possession, which is referenced as "notwithstanding" by Article 4(2).

175. Presumably, "immediately" refers to the moment of subjective entry into force of the Treaty. This particular rule, being the only obligation specific to Continuingly Armed States which unfolds immediate effects, may perhaps best be read together with preambular paragraph 3, which references the risks of detonation, whether intentional or not.

176. An applicable deadline is determined at the first meeting of the parties (see Article 8) in accordance with a plan (*infra*).

177. Within 60 days of subjective entry into force of the Treaty, Continuingly Armed States must submit a plan on the "verified and irreversible elimination" of their nuclear-weapon programme to the parties or international authority (see Article 4(6)).

178. After the plan is submitted, it is further negotiated with the international authority, which then itself submits it for approval by the parties (at the following meeting or review conference). Such a plan, once approved, represents a legally binding and time-bound instrument.

179. The content of such safeguards agreements is analogous to that required by Article 4(1) (see *supra* note 171).

180. Relevant safeguards agreements must be concluded within 18 months of the beginning of negotiations.

181. Maintenance represents a minimum obligation without prejudice to future instruments.

reports, which must be submitted at every review conference pursuant to (5).[182] Overall, these provisions constitute the core of what may be considered one of the three principal pillars of the Treaty: elimination.[183]

With the exception of the obligations to negotiate and conclude under NPT, Article VI, the Treaty is silent on disarmament and safeguards[184] obligations of NWS. As illustrated above, these states also do not have a right to nuclear explosive devices under that Treaty.[185] As a result, there is nothing in the NPT that would prohibit rendering nuclear explosive devices inoperable or destroying them, submitting, negotiating and implementing a plan to eliminate relevant programmes and then concluding a safeguards agreement. On the contrary, these measures likely represent exactly the type of action envisaged by NPT, Article VI.

2.4.3. Obligations of Sharing States (SS)

Pursuant to Article 4(4) Sharing States are required to "ensure […] prompt removal […] as soon as possible but no later than a deadline to be determined by the first meeting of States Parties."[186] Once removal has been performed, (former) Sharing States must communicate that circumstance via final declaration. Additionally, relevant progress reports are due at every review conference. As illustrated above (see, in particular, *supra* note 136), sharing is currently performed pursuant to a disputed interpretation of the NPT. Though the subject of a potential conflict of a sharing prohibition as envisaged by Article 1(g) will be further analysed below, an agreement of a Sharing State to remove devices by an undefined deadline would appear to constitute even less of a reason for concern, if there is one at all, as regards sharing under the NPT.

182. Although paragraph (5) does refer to reports to be submitted by "[e]ach State Party to which this Article applies" at every gathering and paragraph (6) contains an obligation of "[t]he States Parties" (i.e. all states parties) to designate an international verification authority, states that are not specifically addressed by the Article, i.e. neither Newly Disarmed States, Continuingly Armed States nor Sharing States, will not have to submit reports given that the international authority must either be designated by objective entry into force of the Treaty or decided upon at an extraordinary meeting convened for that purpose (see paragraph (6), *supra* note 172).

183. The other pillars being prohibition (see *supra* note 99) and remediation (see *supra* note 88). Elimination is explicitly cited in the title of Article 4 as well as several preambular paragraphs. These include reference to the "need to completely eliminate" (paragraph two, *infra*), "irreversible, verifiable and transparent elimination" (paragraph 15) and the call to eliminate both by the UN General Assembly (paragraph 13) and others (paragraph 24). Similarly, achieving and maintaining a "nuclear-weapon-free-world" is included in paragraphs 5 and 15. In addition, the Preamble repeatedly refers to (nuclear) disarmament, its "slow pace" (paragraph 14), a reaffirmed obligation on "negotiations leading to nuclear disarmament in all its aspects under strict and international control" (paragraph 17), "progress towards general and complete disarmament" (paragraph 16), as well as the NPT representing the "cornerstone" (paragraph 18) and the CTBT a "core element" (paragraph 19) of the relevant regime, with NWFZ (paragraph 20) contributing towards the appropriate objective.

184. The NPT NWS have concluded voluntary agreements, not envisaged by the Treaty (see *supra* note 56).

185. See *supra* notes 43 and 44.

186. The first meeting is set to be convened within one year of the objective entry into force of the Treaty (see Article 8). Similar to Article 4(2), paragraph (4) too is equipped with a notwithstanding clause referencing Article 1(b) (active transfer) and (g) (sharing, see *supra* notes 134 *et seq*.).

2.4.4. Obligations of States Unarmed on the Reference Date (SURD)

Article 3 enshrines the obligation of every party that is neither a Newly Disarmed State nor a Continuingly Armed State[187] to maintain pre-existing IAEA safeguards and negotiate,[188] conclude (if it has not yet done so) and maintain a Comprehensive Safeguards Agreement (CSA).[189] The terms and timing of these (and previously illustrated safeguards provisions under Article 4(1) and (3)) deviate from that envisaged by the NPT and thus will be gauged for potential conflict below.[190]

2.4.5. Obligations of States Affected by Use or Testing (SAUT)

Pursuant to Article 6, the primary treaty burden for providing assistance to individuals[191] and remediating areas contaminated[192] by (activities related to) use or testing rests with parties enjoying jurisdiction (or control) over such persons and places.[193] These provisions are particularly significant in light of their preambular context and independence from NWS participation in the Treaty. For one, even if NWS do not become parties to the Treaty and thus comprehensive prohibition and elimination of nuclear weapons is not fully achieved, these provisions may well accomplish what has been suggested to represent the third principle pillar of the Treaty, namely remediation (see *supra* note 88) (the role of other states in co-operating and assisting pursuant to Article 7 interoperates with Article 6). For another, the Preamble of the Treaty reflects its humanitarian character and references civil society groups and organisations involved in relevant endeavours (such as the "hibakusha"

187. On the particular safeguards regimes for these states, see *supra* notes 168 *et seq*. and 179 *et seq*., respectively.

188. Similar to Article 4(1) (Newly Disarmed States), the provision envisages commencement of negotiations within 180 days after the Treaty has entered into force and their conclusion within 18 months from that date.

189. Preambular paragraph 21 emphasises that the TPNW does not conflict with the right to peaceful use (enshrined in NPT, Article IV).

190. There are several differences between these safeguards obligations and those envisaged by Article 4(1) (on Newly Disarmed States, see *supra* notes 168 *et seq*.) and (3) (on Continuingly Armed States see *supra* notes 179 *et seq*.). First, the latter are not bound to maintain pre-existing safeguards agreements under the TPNW, though both *de facto* and *de jure* NWS have concluded various agreements (generally Voluntary Offer Agreements and Model Additional Protocol (AP)-based agreements (NPT NWS) or item-specific safeguards (see *supra* notes 43 and 44). Second, the latter are obliged to assent to the higher, AP standard, while the former are required to conclude mere CSA.

191. Paragraph (1) referring to "individuals under […] jurisdiction", raises the question whether it is only the territorial state, i.e. the state where such persons are present at a given time that is subject to this obligation, or other jurisdictional principles may apply (see on this question with regard to Article 1 text at *supra* notes 150 *et seq*.).

192. The term and relevant threshold are not defined within the Treaty and thus open to interpretation. In particular, it is not clear which level of contamination would trigger the relevant provisions under the Treaty.

193. The text "in accordance with applicable international humanitarian and human rights law" preceding the specific acts of assistance listed, may be interpreted in a number of ways. The provision may restate what the cited law, in any event, requires and thus simply refer to a minimum standard. References to humanitarian and international law may also be understood as reinforcing these sources as a basis for assistance, while further specifying or going beyond generally applicable minimum requirements where specific acts of assistance such as "psychological support" are cited. One further consideration might be whether, especially reading Article 6 together with Article 5 (national implementation), the former is meant to provide the basis for an individual right of affected individuals (once the Treaty has been transformed into national law).

and "non-governmental organizations" mentioned in paragraphs 6 (*infra*) and 24 (*supra* note 183)).[194]

The question has been raised,[195] whether the reference in Article 6(2) to "result of activities related to […] testing or use" may operate in relation to "activities such as uranium mining and milling […] as well as practices for disposal […] such as ocean dumping". Due to the fact that these activities are neither specific to testing or using, nor nuclear explosive devices in general, and considering that the TPNW is careful not to infringe upon peaceful use (see e.g. preambular paragraph 21, modelled upon NPT, Article 4), this contribution would understand such activities as generally excluded from the ambit of the provision and the Treaty. Yet, given that Article 6(2) expressly refers to "activities related to", while paragraph (1) does not, the former must extend to activities not encompassed by the latter. Therefore, it may seem arguable to perhaps interpret Article 6(2) as requiring environmental remediation of areas where activities such as mining, milling or disposal have taken place, those activities have in fact resulted in contamination and these activities were exclusively performed not for peaceful purposes, but only "related to […] testing or use". Moreover, a relevant state would enjoy a certain discretion in determining what it considered a "necessary and appropriate" measure. In addition, omitting "activities related to" from Article 6(1) clarifies that relevant affected states are not required to provide assistance to individuals affected by such activities under the Treaty, but direct use and testing only. One further similar peculiarity of note is that paragraph (1) (individuals) is limited to effects of nuclear weapons, while paragraph (2) (areas) extends to those of other nuclear explosive devices as well.

It may seem counterintuitive, but also pragmatic to allocate remediation obligations not to the using or testing but the affected state. In this regard, both paragraph (3), containing a "without prejudice"-clause[196] and Article 7, stipulating a right to receive (paragraph (2)) and a responsibility to provide assistance (paragraph (6)), as well as an obligation to render co-operation (paragraph (1)) should be kept in mind. In addition, the obligation is one to provide mere "adequate" assistance or take "necessary and appropriate" measures.[197] The NPT is largely silent on use and testing (see "use" under

194. In this regard, it might be pointed out that "catastrophic humanitarian consequences" are mentioned twice (paragraphs 2 and 4), in addition to "grave implications for human survival and the environment" (paragraph 4), suffering of victims of use and testing (paragraph 6), their impact upon indigenous peoples (paragraph 7), as well as various rules and principles of humanitarian international law (paragraphs eight and nine (*supra* note 87), as well as 10 and 11 (*supra* note 143)), including such referring to "protection of the natural environment" (paragraph 9, *supra* note 87).

195. Rietker D. and M. Mohr (2018), *supra* note 89, p. 27.

196. The provision thus clarifies that it adds to and does not subtract from relevant obligations. The reference to specifically *bilateral* agreements (emphasis added) may be attributed to existing agreements, such as that concluded between the Marshall Islands and the United States in 1983 and amended in 2003, which, under Section 177 stipulates the creation of a fund to "address […] consequences of the Nuclear Testing Program" (Agreement between the United States of America and the Marshall Islands, Amending the Agreement of June 25, 1983, concerning the Compact of Free Association (2003), entered into force 1 May 2004). See TPNW, Article 7(6) on the "responsibility" to provide assistance to states that have used or tested.

197. Use of these modifiers increases the discretionary power of a state regarding the extent of its remediation obligations.

TPNW, Article 1(d)).[198] In any event, it does not contain provisions that intersect with the assumption of remediation obligations by states.

2.4.6. Obligations of States that have Used or Tested (SUT)

As a corollary[199] to Article 6, Article 7(6) stipulates a "responsibility"[200] to assist[201] affected states.[202] With regard to the NPT, similar considerations as those applicable to other provisions concerning use and testing apply.[203]

2.5. *Final provisions*

For the sake of completeness and verifying the absence of any incompatibility with the NPT, in addition to the substantive provisions illustrated above (Articles 1 through 7), the final articles of the Treaty are reviewed as well. Moreover, some may be relevant with a view to the interpretation of substantive provisions. They are therefore briefly elaborated upon insofar as of interest to the present analysis.

Article 8 of the Treaty envisages three types of gatherings: i) biannual regular meetings (paragraphs (1) and (2)); ii) extraordinary meetings (paragraphs (1) and (3)); and iii) review conferences every six years (paragraph 4).[204] Review is devoted to the operation of the Treaty and progress in achieving its purposes. Extraordinary meetings may most likely be convened for any purpose that would merit a regular meeting.[205] The principal provision on (regular) meetings may be interpreted as stipulating two primary

198. On the relationship between providing nuclear explosive devices under Article V of the NPT and then alleviating the consequences of their use see *supra* note 166. Due to the fact that only paragraph (2) (areas) refers to "other nuclear devices", while paragraph (1) (individuals) is limited to "nuclear weapons", interoperability concerns under Article 6 relating to Article V NPT may be restricted to environmental remediation.

199. Linking "affected State Parties" to "victim assistance and environmental remediation" may be interpreted to refer to states described under Article 6(1) and (2) (see *supra* "2.4.5 Obligations of States Affected by Use or Testing").

200. Whether employing this term gives rise to a binding obligation may be subject to doubt. Article 7(6) is the only provision of the Treaty which employs it. The single other passage of the Treaty including a reference to a "responsibility" is preambular paragraph 3 (see *supra* note 175), citing a "responsibility to prevent any use of nuclear weapons", which is not an obligation under the TPNW or known to be one under general international law.

201. Given that the provision refers only to "adequate assistance", the scope of this paragraph, which may not be binding (*ibid.*), is further narrowed down and opened to a greater degree of discretion by a relevant state.

202. Being "without prejudice", similar to Article 6(3), the provision is designated to add to existing undertakings. Though Article 7(6) simply refers to "international law", while Article 6(3) cites "international law or bilateral agreements", it would not seem plausible to infer that bilateral agreements should be considered prejudicial to the relevant "responsibility".

203. See, e.g., *supra* note 198. Two observations may be of particular note in this regard. First, while Article 7(6) does include a reference to "other nuclear explosive devices" and thus a "responsibility" of a state that has used a peaceful nuclear explosion to render victim assistance, the primary remediation obligation under Article 6(1) limits itself to "nuclear weapons" (see text at *supra* note 196). Second, it may indeed be the state that has requested benefitting from a peaceful nuclear explosion, rather than the state providing it, which would be the using state.

204. Under paragraph (5), a wide variety of observers, including non-states parties, are designated to be invited to gatherings.

205. The provision (Article 8(3)) does not specify for which purpose extraordinary meetings may be convened. Considering that extraordinary meetings too are "meetings" as designated by paragraph (1), presumably the Treaty envisages both being held for the same range of purposes. Additionally, under Article 4(5) and (6) the Treaty stipulates that an extraordinary meeting may be convened for the purpose of deciding upon an international verification authority (see *supra* note 172).

purposes: "to consider and […] take decisions" on i) "the application or implementation of [the] Treaty"; and ii) "further measures for nuclear disarmament", thus measures going beyond mere application or implementation. Three examples of relevant matters are further illustrated, comprising, *inter alia*, "[m]easures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes".[206] The Treaty thus envisages taking decisions going beyond its mere application and implementation, being related to a subject matter that may well overlap with NPT, Article VI, meriting further analysis below.

In addition to provisions on costs,[207] amendments,[208] dispute resolution,[209] consent and entry into force,[210] depositary functions and authenticity of texts,[211] the Treaty contains an obligation to "encourage" other states to join the Treaty, in an effort to achieve the "goal of universality".[212] No reservations are permitted.[213] The Treaty is of indefinite duration and subject to withdrawal pursuant to Article 17 and a clause

206. Example (a) refers to "implementation of […] this Treaty" and (b) to "[m]easures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes". Though the language of the latter is analogous to that employed by Article 4 in the context of disarmament plans (see *supra* note 177), decisions on such plans do constitute implementation of the Treaty, meaning that such plans would be considered matters pursuant to (a), and it is other measures, not related to implementation, that are envisaged by (b). This may be understood as a basis for the parties to take decisions on matters going beyond the ambit of application and implementation, which may equally be inferred from the distinction between "application and implementation of this Treaty" and "further measures" at the outset.
207. Pursuant to Article 9, Newly Disarmed States and Continuingly Armed States carry the costs of destroying their own devices and elimination of their programmes as well as verification thereof. Costs of meetings, conferences and gatherings are borne by the parties (and observers).
208. The Treaty is amendable upon proposal supported by a majority and positive vote of two-thirds of parties (Article 10, Amendments). Unlike under the corresponding NPT provision, neither the consent of a particular class of states (NWS) nor that of current members of the Board of Governors of the IAEA is required (Article VIII).
209. Unlike the NPT, the TPNW does contain a dispute resolution clause (Article 11). Yet, it omits reference to any binding dispute resolution method, instead citing and largely reiterating the content of Article 33 of the UN Charter (peaceful resolution of disputes), while allocating certain functions to the meeting of states parties for the purpose of non-binding dispute resolution.
210. The Treaty is open for signature by all states, subject to standard (i.e. pursuant to VCLT, Article 14(1)(a) and (2) as well as Article 15(a)) means of consent and enters into force 90 days after the 50th state has consented (Articles 13 to 15).
211. Articles 19 and 20 denominate the Secretary General of the UN as the depositary (as opposed to three NWS state parties of the NPT) and stipulate the equal authenticity of texts in all six UN languages.
212. This provision may be understood to reflect the goal of achieving a "nuclear-weapon-free world" cited in preambular paragraphs 5 and 15 (*supra* note 173), or the "need to completely eliminate such weapons" under paragraph 2. Elimination is also cited by reference to the relevant Resolution of the General Assembly of the UN in paragraph 13 and as an end of prohibition under paragraph 15.
213. Article 16 renders reservations impermissible as envisaged by VCLT, Article 19(a), thereby maintaining the integrity of the Treaty and avoiding possible reservation disputes. Conversely, permitting certain reservations may have provided an avenue for states concerned by an alleged incompatibility with the NPT to reserve accordingly and also perhaps facilitated dissuading further doubts (e.g. pertaining to national implementation).

similar to that employed by the NPT, with one particularly important difference.[214] States may not withdraw from the Treaty while they are a party to an armed conflict.[215]

A provision of eminent import is that governing the relationship with other agreements (Article 18). The NPT contains no such provision. Though the clause under the TPNW begins by stating that it "shall not prejudice", it does so only where obligations are "consistent with the Treaty". As a result, the TPNW stipulates its primacy over other agreements, including the NPT. The implications of TPNW prevalence will be subject to further analysis below.

IV. Analysis of identified instances of potential conflict

The previous section has elucidated the terms of the treaties and endeavoured to identify what might be perceived as conflicting provisions. This segment will recapitulate the significant content of these provisions, circumscribe the appropriate conflict theories, further analyse them and assess their merit. The next two sections will then seek to place prevailing conflicts within the relevant rules of international law and draw final conclusions.

1. *NPT, Articles I and II (non-proliferation) in light of the acquisition and possession prohibition under TPNW, Article 1(a)*

Although eminently difficult to identify within the language of the Treaty, NWS have argued that the NPT grants them a "right" to possess and produce such weapons.[216] Article 1(a) of the TPNW is unequivocal in this regard, stipulating comprehensive prohibitions, including those of production and possession under all circumstances.[217] It has been alleged that the TPNW is "not consistent with [the] NPT", the "most conspicuous example" being the lack of a "distinction between states entitled to possess such weapons" and others.[218] If the NPT did in fact grant a right to possess nuclear weapons, that right would directly conflict with the TPNW.

As conceded above,[219] it would be unreasonable to interpret the NPT in any other manner than reflecting an acceptance by the parties that the defined NWS maintain nuclear weapons until they have fulfilled their disarmament obligations. Yet, that acceptance is by no means identical with conferring a right under the terms of the Treaty. The absence of a prohibition cannot be equated with the stipulation of a right.[220]

214. Notice of withdrawal is given to the depositary (i.e. the Secretary General of the UN) as opposed to both the other parties of the Treaty and the UN Security Council, becoming effective after 12 rather than 3 months. On the now widely considered resolved dispute regarding the withdrawal of the DPRK from the NPT, see *supra* note 70.

215. This clause is of twofold importance. First, it pre-empts arguments similar to those advanced by states according to which the NPT would no longer operate during a situation of armed conflict (see *supra* note 141 with further references), rendering an explicit reference to applicability at all times within the TPNW all the more significant. Second, it would likely frustrate the object and purpose of the Treaty if a state were able to simply withdraw, then acquire and use nuclear weapons (though it must be acknowledged that an NPT NWS or non-NPT state would possibly be able to pursue such a course of action after a 12-month withdrawal delay).

216. See *supra* note 43.

217. Notwithstanding TPNW, Article 4(2), which may be understood to constitute an exception for Continuingly Armed States until such time as these have completed the pertinent disarmament process (see TPNW, Article 4(2)).

218. Trezza, C. (2017), *supra* note 9, p. 2.

219. *Supra*, "1.2.1 Rights of NWS".

220. See *supra* note 44.

It therefore appears unjustified to consider NWS as "entitled" to possess nuclear weapons under the NPT. The treaties are entirely compatible in that regard. What is not compatible with the TPNW, is proceeding with certain conduct whereupon the NPT was silent (such as possession) once Article 1(a) has taken effect. In this context it might be once more emphasised that TPNW, Article 4(2) is devised in a manner that permits Continuingly Armed States (potentially including NPT NWS) to disarm over time and thus would not render an NPT NWS in breach of Article 1(a) by virtue of mere possession once the TPNW has entered into force. Conversely, Continuingly Armed States too would be under an obligation to immediately remove all nuclear weapons or nuclear explosive devices from operational status. In any event, it is not NPT, Articles I and II but conduct not prohibited by those provisions (such as possession of nuclear weapons by NWS) that may conflict with TPNW, Article 1(a).

2. NPT, Articles I and II in light of the transfer prohibitions under TPNW, Article 1(b) and (c)

Both NPT, Articles I and II as well as TPNW, Article 1(b) and (c) contain provisions prohibiting active and passive transfer. The relevant rules differ from one another both in terms of the extent of the prohibition as well as the subjects between which such transfer may not be performed. Specifically, because NPT, Article I merely prohibits active transfer by NWS and Article II governs passive transfer by NNWS only, the universal transfer prohibitions under TPNW, Article 1(b) and (c) extend beyond the scope of the NPT. In addition, the introductory qualifier in TPNW, Article 1 "never under any circumstances" removes all doubt that transfer is prohibited both in peacetime and during armed conflict. Thus, due to the fact that transfer prohibitions within the TPNW might be considered more comprehensive than those under the NPT, both in terms of which states are bound by them and when they operate, they might be considered as conflicting with one another. In addition, some NPT parties engaged in sharing have taken the position that the NPT would cease to operate during "general war" thus rendering transfer of control permissible at such time.[221]

Logically speaking, an NNWS that does not possess or control any relevant devices will not be in a position to engage in active transfer. Similarly, given that all NWS are prohibited from engaging in active transfer under the NPT, even though NWS are not subject to any passive transfer obligation under the Treaty, no other NWS would be in a position to provide a transfer without breaching the active transfer prohibition under Article I. As a result, it is difficult to envisage a transfer that would have been possible under the NPT alone, but is now prohibited under the TPNW due to its establishment of universal rather than symmetrical prohibitions. Moreover, if the NPT did in fact cease to operate during a situation of armed conflict, it could not conflict with the TPNW at such time. As a result, though the TPNW does formally provide for more stringent obligations in terms of subject matter ("never under any circumstances") and extends prohibitions to all parties equally, these terms in no way conflict with the NPT.

One particular aspect, however, might not be governed by either Treaty. Given that both, with a regard to control, merely prohibit transferring or receiving it, a state that already has control over nuclear explosive devices, but is never involved in a transfer, might be considered to comply with the wording of the treaties. Still, it would seem highly unlikely that such understanding should survive a comprehensive interpretation in good faith, considering the context and especially the object and purpose of the TPNW.

221. See *supra* "2.1.3 Sharing States".

3. *NPT, Articles I and II in light of the production assistance prohibition under TPNW, Article 1(a) and (e)*

Some NWS have understood NPT, Articles I and II as prohibiting only the transfer of entire devices, but not components (as well as materials and designs) between one another.[222] Specifically, the provisions may have been drafted in a manner designated not to hamper nuclear weapon development co-operation among NWS.[223] Article 1 of the TPNW prohibits not only development (a) but also any assistance (e) rendered in such context. Given that the TPNW thus prohibits conduct which may have been intentionally not subjected to any prohibition under the NPT, applying a similar logic to that illustrated in the context of possession (see above), the treaties might be considered incompatible on these grounds as well.

Similar to what has been advanced as regards possession, any relevant conduct, hitherto considered not explicitly prohibited under the NPT, is now expressly prohibited under the TPNW. It is therefore the required conduct (or forbearance) and not the terms of the treaties that are incompatible. Indeed, this may be considered a recurring *motif* when comparing the two treaties. The TPNW imposes more stringent obligations that do not conflict with the NPT itself, but rather with conduct not explicitly prohibited by it. It would seem unsuitable to label such a relationship "inconsistent" or even "conflicting". In essence, there is an important distinction to be drawn between conduct permitted by the NPT and that not prohibited by it. Several provisions of the TPNW extend to conduct not (explicitly) addressed by the NPT. For the sake of avoiding unnecessary redundancy, only some of these will be addressed below.

4. *NPT, Articles I and II in light of the sharing prohibition under TPNW, Articles 1(g) and 4(4), considering the transfer prohibition in Article 1(b) and (c), as well as national implementation pursuant to Article 5 and the withdrawal clause in Article 17(3)*

Certain NPT states parties engage in sharing arrangements, i.e. stationing of nuclear weapons on the territory of other parties without transferring possession or control.[224] These states have interpreted the non-proliferation provisions of NPT, Articles I and II as not prohibiting such conduct. It is their conviction that transferring control over these weapons to sharing states "in times of general war" would be permissible, due to the fact that the NPT would then no longer operate. Conversely, TPNW, Article 1(g) explicitly prohibits both stationing (and other sharing) and transfer ((b) and (c)) under any circumstances, as well as withdrawal from the Treaty during armed conflict (Article 17(3)). Additionally, parties are subject to relevant national implementation obligations under Article 5. Moreover, parties to the TPNW that do benefit from sharing are required to ensure the removal of relevant weapons or devices by an undefined deadline pursuant to Article 4(4). If the cited provisions of the NPT are indeed interpreted as non-prejudicial to sharing, their compatibility with the relevant content of the TPNW, which certainly is prejudicial to it, may represent grounds for concern. Indeed, this discrepancy has been understood as "not consistent with" the NPT and contradicting it.[225]

Questions pertaining to the legality of such conduct under the NPT notwithstanding,[226] the NPT certainly does not stipulate that its parties enjoy a right to transfer control over nuclear weapons to NNWS or station them accordingly even

222. Joyner, D.H. (2009), *supra* note 30.

223. *Ibid*.

224. *Supra* "2.1.3 Sharing States".

225. Trezza, C. (2017), *supra* note 9, p. 2.

226. An interpretation in good faith may well render any transfer of control, whether during armed conflict or not, prohibited under the NPT (*supra* "2.1.3 Sharing States").

without transferring control. By the same token, the Treaty is, at the very least, silent upon ensuring the removal of relevant weapons or devices. If it did, in fact, not operate in times of armed conflict then it could also not conflict with the TPNW in such times. As illustrated above, it is not difficult to envisage national statutes implemented pursuant to the TPNW as unfolding far-reaching consequences, particularly by penalising acts that constitute sharing assistance.[227] Nonetheless, these acts have been hitherto performed in the absence of an explicit prohibition at best.

In a final analysis, whichever interpretation of the NPT is advanced, whether suggesting that it prohibits or is silent upon sharing and related activities, it would be impossible to read a right to such conduct into the Treaty. As a result, though the prohibition under the TPNW will certainly conflict with any sharing activities conducted by states parties that friction will not extend to the terms of the NPT.

Many wider concerns with respect to national implementation are likely to be dissuaded by virtue of the employed term "appropriate".[228] Interpretation would most suitably be informed not only by the context[229] of the provision, including reference to the NPT,[230] but also taking into account the provisions of the NPT itself as "rules of international law applicable between the parties"[231] where relations between two state parties to both treaties are concerned. Even when cross reading every individual provision of the NPT with all the prohibitions listed in TPNW, Article 1 and conceiving probable means of implementation pursuant to TPNW, Article 5, it would be difficult to envisage a conflict that cannot be resolved by reference to the term. Most importantly, it should be kept in mind that all the prohibitions under the TPNW relate to nuclear explosive device-related activity exclusively. Nothing within the NPT, with the exception of Article V (see below), grants rights associated with nuclear explosive devices or contains relevant conflicting obligations.

5. *NPT, Article VII (NWFZ) in light of the comprehensive prohibition in TPNW, Article 1*

Though NPT, Article VII explicitly recognises the "right of any group of States … to assure the total absence of nuclear weapons in their respective territories", such right expressly refers only to "regional treaties". Yet, the prohibitions contained within TPNW, Article 1, including those devoted not only to possession ((a)) but also any form of sharing ((g)) and the universal ambition (Article 12) of the Treaty to achieve complete elimination of nuclear weapons as one of its three pillars, i.e. a component of its object and purpose,[232] go far beyond that of a regional treaty. The TPNW might therefore, continuing in a line of thought detailed above, be "inconsistent" with or even conflict with the NPT in this regard as well. A pertinent argument would suggest that not being limited to a regional prohibition, the TPNW may be incompatible with the provisions of the NPT.

Three aspects are of particular note in this context: First, NPT, Article VII does not limit any rights whatsoever. It cannot be construed to limit the right of states to ban nuclear weapons on their territory individually, nor can it be understood to restrict prohibition treaties to the regional level. Second, the provision references an unhampered right enjoyed by "any group of States", and there is no reason to understand that reference as implying a right enjoyed only by certain groups, or particular combinations of states as a given group. "[A]ny group of States" thus

227. *Supra* notes 154 *et seq*.
228. TPNW, Article 5.
229. Including its preamble, see VCLT, Article 31(2).
230. TPNW, preambular para. 18.
231. VCLT, Article 31(3)(c).
232. See *supra* note 183.

references any combination of states, including all states. This means that the Treaty recognises the right of all states, including such currently disposing of nuclear weapons or having them on their territory, to conclude regional prohibition treaties at the very least. Third, the provision is also significant because even if it were applied as reserving a right to conclude strictly regional treaties, given that there is no limitation to particular regions, it would be equally possible to conceive a combination of regions practically spanning the globe. Aside from the fact that the Article thus does not in any way impair the right of each state to conclude a global treaty banning nuclear weapons on the territories of the parties, it even envisages that each and every state ("any group of States") may conclude treaties applicable to any territory ("regional treaties", i.e. arguably all regions in all possible combinations). There is thus not only nothing in the Article that would limit the right of every state to conclude a prohibition treaty with any other state, the provision also restates that right. Insofar as the content of the TPNW thus concerns "assuring the total absence of nuclear weapons" on the territory of its parties, it is not only compatible with but may even be envisaged by the NPT.

6. *NPT, Article III (safeguards) in light of safeguards under TPNW, Articles 3 and 4(1) and (3)*

The safeguards obligations in NPT, Article III differ from those envisaged in TPNW, Articles 3 and 4(1)[233] and (3)[234] in terms of wording, standards and timing. The latter are not bound to maintaining pre-existing safeguards agreements under the TPNW, though both *de facto* and *de jure* NWS have concluded various agreements.[235] Under Article 4(1) and (3), the TPNW refers to safeguards that should be "sufficient to provide credible assurance" on the non-diversion of declared and absence of undeclared nuclear material or activities.[236] Creating binding obligations for NNWS only, among other terms, Article III(1) of the NPT refers to "preventing diversion", the "exclusive purpose of verification" pertaining to obligations under the NPT, focusing on "diversion of nuclear energy" and "material in [...] activities". The content of what exactly is required by Article III has been the subject of extensive debate. Currently, the provision is understood to envision the conclusion of a Comprehensive Safeguards Agreement pursuant to the model CSA and not necessarily an AP.[237] In essence, the former may be considered to verify non-diversion and the latter the absence of undeclared material or activities.[238] Thus, Articles 4(1) and (3) may be read to require the conclusion of an AP by Newly Disarmed States and Continuingly Armed States, meaning that the latter are obliged to assent to the higher, AP standard, while other parties are required to conclude a mere CSA.[239] In addition, the TPNW also sets out a different schedule for negotiating and concluding relevant agreements.

These differences have been subject to criticism, including that the terms of the TPNW conflict with the NPT. Specifically, the timing requirements under the TPNW have been interpreted as impermissibly extending those envisaged by the NPT (both in

233. On Newly Disarmed States see *supra* notes 168 *et seq*.

234. On Continuingly Armed States see *supra* notes 179 s*et seq*.

235. Generally Voluntary Offer Agreements and Model AP-based agreements (NPT NWS) or item-specific safeguards.

236. See *supra* "2.4.1. Obligations of Newly Disarmed States (NDS)".

237. I.e. INFCIRC/153 (Corrected) (Giorgou, E. (2018), *supra* note 9).

238. *Ibid*.

239. States Unarmed on the Reference Date are obliged to maintain pre-existing IAEA safeguards and negotiate (similar to Article 4(1) (Newly Disarmed States), the provision envisages commencement of negotiations within 180 days after the Treaty has entered into force and their conclusion within 18 months from that date), conclude (if they have not yet done so) and maintain a CSA.

terms of negotiation and entry into force deadlines). These criticisms identified by Giorgou[240] include such suggesting that TPNW, Article 4 contradicts the universality of the CSA plus the AP in states that have eliminated nuclear weapon programmes (Action 30 as envisaged in the 2000 Review Conference Final Document, reaffirmed in 2010).[241] Though this does not constitute a question of incompatibility with the Treaty *per se*, it may perhaps be considered to impact subsequent agreement and thus also the Treaty. As Giorgou has illustrated, the Action Plan does not mandate the adoption of an AP and renders such action optional until "global zero" is achieved (citing Actions 24, 25 and 28). In addition, it is not clear whether these specific actions may be considered to represent subsequent agreement and equated with the NPT itself. Finally, as illustrated by Giorgou, even if the proposition of adoption of an AP as a universally mandatory standard under the NPT is accepted, the TPNW would simply set a lower compulsory standard. This would fall short of representing an inconsistency under Article 18 of the TPNW, in which case the higher standard of the NPT would simply continue to operate.

Though both treaties do envisage diverging timelines as regards deadlines for commencing negotiations on and entry into force of safeguards agreements, as Giorgou has demonstrated, these provisions cannot, however, be considered to conflict, given that they simply constitute two distinct sets of obligations, even if one should be more stringent than the other. As a result, a state that has failed to take a certain action by a given point in time may be in violation of the NPT, but not the TPNW. This would constitute no more of a conflict than conduct that is prohibited under the TPNW and not addressed under the NPT (such as prohibition of use under Article 1(d)).

Thus, by setting more explicit and sometimes higher standards, while stipulating safeguards provisions binding upon all parties rather than particular categories, and defining distinct timing requirements, the TPNW does differ from the NPT. Yet, all differences between the NPT and TPNW safeguards regimes considered, none of them give rise to concerns in terms of a *conflict*. Instead, the TPNW imposes in some respects new or more stringent, but not incompatible safeguards obligations.

7. NPT, Article VI (disarmament) in light of various TPNW provisions, particularly prohibition and elimination under Articles 1 and 4

The discrepancy between the disarmament provision contained in NPT, Article VI and both the comprehensive prohibitions of TPNW, Article 1 and elimination provisions under TPNW, Article 4 may be considered to constitute a significant component of the *raison d'être* of the TPNW. While the NPT contains an obligation to negotiate, the relevant terms of the TPNW are less equivocal. Though NPT, Article VI does envisage the negotiation of *a treaty*, the provision is without prejudice to the question of whether the TPNW is, in fact *that treaty*. As a result, understanding what exactly Article VI requires and contrasting it with the content of the TPNW may contribute to analysing the compatibility of the treaties.

The (authoritative but albeit non-binding) interpretation by the ICJ in its Nuclear Weapons Advisory Opinion has shed light on two aspects of particular note. First, that Article VI contains an obligation to achieve a "precise result" rather than conduct.[242] Second, that such result is of a distinct nature, namely "nuclear disarmament in all

240. Giorgou, E. (2018), *supra* note 9.

241. See *supra* note 48.

242. Nuclear Weapons Advisory Opinion, *supra* note 1, p. 34, para. 99 "[…] The legal import of that obligation goes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result – nuclear disarmament in all its aspects – by adopting a particular course of conduct, namely, the pursuit of negotiations on the matter in good faith."

its aspects"[243] as opposed to a mere component of a general and distant demilitarisation objective. NPT, preambular paragraph 11 reinforces this interpretation, linking "elimination of … nuclear weapons" to "a Treaty on general and complete disarmament", the former arguably denoting the subject matter and the latter the type of treaty.[244] Considering that both the Biological and Chemical Weapons Conventions employ such language ("general and complete disarmament") as well, a treaty on nuclear disarmament would seem to complement these treaties of the "general and complete" disarmament type.[245] Preambular paragraphs 8 through 11 are sometimes referenced in this regard as well, citing, *inter alia*, co-operation towards nuclear disarmament.[246]

In addition, two instances of subsequent conduct of the parties relevant to the provision are of particular interest.[247] One relates to the 1995 Principles and Objectives on the implementation of Article VI adopted in the context of the NPT Review and Extension Conference.[248] They are contained in a "[d]ecision" citing, under a "principle and objective" titled "[n]uclear disarmament", measures "important" to the "full realization and effective implementation of article VI". One such measure is "[t]he determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons, and by all States of general and complete disarmament under strict and effective international control", thus reinforcing an understanding that implementing Article VI requires efforts with the goal of complete nuclear disarmament. The other instance is the document titled "Thirteen Steps" for the implementation of Article VI adopted at the 2000 NPT Review Conference, which explicitly references the 1995 Principles and Objectives.[249] These include in Step 6 "[a]n unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all states parties are committed under Article VI."[250] Additionally, pertaining specifically to NWS, Step 9 references the "implementation of agreements pursuant to Article VI", "[c]oncrete agreed measures to further reduce the operational status of nuclear weapons systems" and "the engagement as soon as appropriate of all the nuclear-weapon states in the process leading to the total elimination of their nuclear weapons."[251] Finally, Step 13 envisages improving verification capabilities with respect to "nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world." As a result, read together, the cited steps indicate that implementation of Article VI involves the total elimination of nuclear weapons under an international agreement.

243. *Ibid*., para. 105: "[…] There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control."
244. Burroughs, J. (2007), *Nuclear Disorder or Cooperative Security?*, Lawyer's Committee on Nuclear Policy, New York, p. 30.
245. *Ibid*., pp. 30-31.
246. For instance, the Final Document of the 2010 NPT Review Conference, similar to earlier Conference documents, cites paragraphs 8 through 12 together with Article VI in reviewing the operation of the Treaty (see *supra* note 48).
247. On the question of whether or not this conduct represents subsequent agreement or practice establishing it pursuant to VCLT, Article 31(3)(a) or (b), see *infra* notes 252 *et seq*.
248. 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Decision 2 (NPT/CONF.1995/32 (Part I), Annex) 20 May 1995.
249. 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (NPT/CONF.2000/28 (Parts I and II)), 20 May 2000.
250. *Ibid*.
251. *Ibid*. One further step of particular interest as regards TPNW, Article 4: "5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures".

Thus, when Article VI NPT is read together with its preambular paragraph 12, the Advisory Opinion of the ICJ and subsequent conduct of the parties at the 1995 and 2000 Review Conferences, it appears entirely plausible to interpret the provision as envisaging a treaty such as the TPNW, which seeks to achieve universal (Article 12) prohibition (Article 1) and elimination (Article 4) of nuclear weapons. Therefore, the content of Article VI NPT does not conflict with the TPNW.

8. *NPT, Article VI in conjunction with Article VIII(3) (disarmament measures at Review Conferences) in light of the substance of meetings under TPNW, Article 8(1)*

Both the NPT (Articles VI and VIII(3)) and TPNW (Article 8(1)) stipulate the possibility of taking decisions with a view to disarmament measures at gatherings. Therefore, the same subject matter may be considered to be governed by the two treaties. Given the overlap of subject matter, it appears worth considering whether the provisions of the treaties and decisions taken on their basis may give rise to conflicts.

Specifically, both NPT, Article VI and TPNW, Article 8 envisage that the respective parties undertake further measures pertaining to nuclear disarmament. This circumstance itself, does not, however, give rise to any conflict. If, in the context of such meetings, states parties to the TPNW were to take a decision that conflicted with the NPT, it would be that decision but not the TPNW itself that interfered. Considering the degree of overlap between various instruments related to (the testing of) nuclear weapons or such related to disarmament, there are myriad opportunities for interaction that does not inhibit the contemporaneity of instruments under the law of treaties. As a result, a decision taken at a review conference or other meeting might be required to be measured by two yardsticks: both that of the NPT and the TPNW. Any conflict between a relevant decision and one of the treaties would, however, not impact the compatibility of the two instruments as such.

9. *NPT, Article V (peaceful nuclear explosions) and various provisions of the TPNW, including use under Article 1(d)*

In the broadest sense, NPT, Article V stipulates an obligation of all parties to make the benefits of peaceful nuclear explosions available to NNWS. Taken at face value, such a provision might appear entirely irreconcilable with the TPNW, not least by virtue of Article 1(b) prohibiting the transfer and (d) prohibiting the use of any nuclear explosive device.

At present, it is unlikely that any reasonable party to the NPT would dispute the factual obsolescence of NPT, Article V. Yet, there are two considerations that may merit revisiting the issue. For one, there may be a need to explain, in strictly legal terms, what exactly the status of NPT, Article V is so as to assure that any concerns of engaging in conflicting treaty relations be put to rest. For another, it has not yet been verified whether it would be legally impossible for any NNWS to invoke its rights under Article V at any future date, regardless of the wide agreement on the present irrelevance of the provision.

Despite elaborations above on its insignificance in light of equivocal wording and the lack of any pertinent benefits having yet materialised,[252] it may be the Article most

252. *Ibid.*, *et seq*. At the 1995 Review and Extension Conference, the parties came to the following understanding:

> The Conference records that the potential benefits of the peaceful applications of nuclear explosions envisaged in article V of the Treaty have not materialized. In this context, the Conference notes that the potential benefits of the peaceful applications of nuclear explosions have not been demonstrated and that serious concerns have been expressed as to the environmental consequences that could result from the release of radioactivity from such applications and on the risk of

deserving of careful reasoning in terms of compatibility. The widespread consensus on the lack of importance of the obligation should not substitute a convincing explanation why exactly, under the rules of treaty law, the provision does not conflict with the TPNW. There are three principal considerations that may provide grounds for doubting the triviality of the matter.

First, Article V might still be considered to constitute a legally binding provision under the NPT. The Treaty has not been formally amended so as to omit the provision. If an NNWS decided that it did desire to enjoy what it considered the benefit of a peaceful nuclear explosion, demanding that international observation and procedures be set up to that end and convincingly dissuaded all other concerns which might be raised under the terms of the Treaty, could it then invoke the international responsibility of each party failing to take "appropriate measures"? Second, evolutive interpretation is a double-edged sword. While history has shown that until now, "potential benefits" may be understood as having proven to currently represent "none", it is conceivable that at a future date, an actual benefit of peaceful nuclear explosions will be developed or discovered. One such suggestion has been advanced in the context of diverting potentially hazardous near-Earth objects or deflecting comets towards Mars for the purpose of promoting the development of the atmosphere on the planet and facilitating subsequent colonisation.[253] However far removed any such possibility may appear now, as long as Article V remains in force, with the advent of a new peaceful nuclear explosion application, the provision could possibly regain relevance. Third, and perhaps most importantly in relation to the TPNW, a treaty that would render "taking appropriate measures to ensure that […] potential benefits [of peaceful nuclear explosion are] made available" impermissible, could arguably be considered to represent a genuine conflict. Given that Article V is, *de facto*, relevant as an obligation of NWS, but, *de jure*, binds "[e]ach Party" to the NPT, every such potential party to the TPNW could be concerned that it would be engaging in conflicting treaty obligations.

Most recently, at the 2010 NPT Review Conference, the parties affirmed that Article V is "to be interpreted in the light of the Comprehensive Nuclear-Test-Ban Treaty".[254] Attributing any specific consequence to this statement requires both an interpretation of its content and appreciation of the legal value of an NPT Review

possible proliferation of nuclear weapons. Furthermore, no requests for services related to the peaceful applications of nuclear explosions have been received by IAEA since the Treaty entered into force. The Conference further notes that no State party has an active programme for the peaceful application of nuclear explosions.

Report of Main Committee III, Treaty on the Non-proliferation of Nuclear Weapons Review and Extension Conference, 5 May 1995, NPT/CONF.1995/MC.III/1, Sec. I, para. 2.

253. See also National Aeronautics and Space Administration (2007), "Near-Earth Object Survey and Deflection Analysis of Alternatives: Report to Congress", available at https://cneos.jpl.nasa.gov/doc/neo_report2007.html (accessed 10 Dec. 2018); Phillips, T. (2014), "Colliding Atmospheres: Mars vs Comet Siding Spring", https://science.nasa.gov/science-news/science-at-nasa/2014/12aug_marscomet (accessed 10 Dec. 2018).

254. Footnote omitted (containing a reference of unclear significance to UNGA Res 50/45, concerning the work of the International Law Commission) (NPT/CONF.2010/50 (Vol. I), 18 June 2010, Final Document Vol. I, Part I, para. 78). The same affirmation (lacking a reference to the pertinent UNGA Resolution) is also contained in earlier documents, such as the 2000 NPT Review Conference Final Document (2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document (NPT/CONF.2000/28 (Parts I and II)), 20 May 2000). See *supra* note 252 for the factually more detailed but legally even less conclusive observations of the parties at the 1995 Review and Extension Conference.

Conference final document. CTBT, Article I(1)[255] stipulates an obligation not to conduct nuclear tests or "any other nuclear explosion", while paragraph (2) prohibits any participation therein. One might therefore be tempted to simply conclude that the parties to the NPT have agreed that (participation in) a peaceful nuclear explosion is prohibited and Article V inoperable as a result. There are a number of reasons to doubt such an interpretation. For one, it is unclear which meaning a general reference to a treaty that is not in force should unfold. In particular, should any possible effect of the reference rest in abeyance until such time as the CTBT enters into force.[256] For another, it may be questioned whether the statement should be understood as simply citing a particular instance of a rule of interpretation whereby treaties shall be interpreted "in light" of agreements in force between the parties.[257] Whether or not this is the case, one might ask whether the statement is then meant to unfold effects for non-signatories or consenting states to the CTBT (whether prior to or upon its entry into force). If the parties at the Review Conference had meant to incorporate the prohibitive rules contained in the CTBT regardless of the status of that agreement and the question of which NPT states were parties to it, would it then not have been more appropriate to clearly state that the parties considered that NPT, Article V should be interpreted in light of a prohibition to conduct nuclear explosions or participate therein? Even if the relevant affirmation were equated with such a prohibition, its effect upon the binding nature of NPT, Article V would need to be determined.

One possibility, would be to consider Review Conference documents as constituting subsequent agreement (or practice establishing it) pursuant to VCLT, Article 31(3)(a) and (b).[258] The term "agreement" in the context of "subsequent agreement" does not refer to treaties.[259] In its original commentary on the VCLT provision, the International Law Commission clarified that subsequent agreement may constitute authentic, i.e. binding, interpretation.[260]

Subsequent practice, on the other hand, is tied to an agreement and may thus be described as "objective evidence of understanding".[261] Not all parties to a treaty must participate in such practice.[262] The VCLT reference to "the Parties" does refer to all parties, meaning, however, that it is "not participation [but] imputable agreement" which is required.[263] Conversely, where decisions are adopted without concurrence of all parties they "cannot be regarded as subsequent agreement to an interpretation [of a treaty Article] nor as subsequent practice establishing an agreement of the parties regarding the interpretation of the Treaty".[264]

255. Comprehensive Nuclear-Test-Ban Treaty (1996) (not in force), available at: www.ctbto.org/fileadmin/content/treaty/treaty_text.pdf (accessed 20 Dec. 2018) (CTBT).

256. Though signatories and states that have consented to the Treaty would be obliged not to frustrate its object and purpose prior to entry into force pursuant to VCLT, Article 18, which may well coincide with the terms at hand.

257. VCLT, Article 31(3)(c).

258. *Ibid*. Joyner refers to these documents as "subsequent interpretative agreements", citing VCLT, Article 31(3)(a) (Joyner, D.H. (2013), *supra* note 30, p. 101).

259. Gardiner, R.K. (2015), *supra* note 69, pp. 244-245 referring to *Kasikili/Sedudu Island (Botswana v. Namibia), Judgment, ICJ Reports 1999*, p. 1045.

260. *Ibid*., p. 244 citing the Commentary of the ILC on the VCLT (International Law Commission (1966), *Yearbook of the ILC*, Vol. II, p. 222, para. 15).

261. Gardiner, R.K. (2015), *supra* note 69, p. 253.

262. Gardiner, R.K. (2015), *supra* note 68, p. 265 citing the *Case Concerning the Temple of Preah Vihear (Cambodia v. Thailand), Merits, Judgment, ICJ Reports 1962*, p. 6, paras 58-70.

263. Commentary of the ILC on the VCLT, *supra* note 260.

264. *Whaling in the Antarctic (Australia v Japan: New Zealand intervening), Judgment, ICJ Reports 2013*, p. 226, para. 83.

The recent report of the International Law Commission on Subsequent Agreement and Practice, prepared by Special Rapporteur Professor Georg Nolte, has referenced the opinion of commentators on NPT review specifically[265] and decisions of conferences of states parties in general[266] as "being capable of embodying" subsequent agreement, which although "not legally binding" may constitute "authoritative interpretation".[267] Nolte cites four particular considerations that must be taken into account when determining whether such conference documents constitute subsequent agreement, namely i) specificity; and ii) clarity "of the terms chosen in the light of the text … of the decision as a whole"; iii) its object and purpose; and iv) the way in which it is applied.[268] Though the relevant NPT Review Conference quote on NPT, Article V lacks, as illustrated, specificity and clarity, relevant decisions are, as cited, considered authoritative. Their object and purpose lies in "assuring that the purposes of the … treaty are being realised".[269] Though the parties to the NPT may well attribute a certain significance to these decisions, it is unclear how far they are applied as decisions reflecting interpretations or mere declarations of intent. It thus might be concluded that there are both elements weighing in favour and such against, deeming the reference at hand a reflection of subsequent agreement.

One further approach to Article V would be to consider whether, with the lapse of time, the operation of the Article has been discontinued by tacit agreement, i.e. *desuetude*, or it has become obsolete due to a drastic change of circumstances since the conclusion of the Treaty.[270] *Desuetudo* may be difficult to establish due to the nature of Article V. Whereas "repeated incompatible practices of all parties" may provide the requisite evidence of tacit agreement,[271] the absence of any practices in the case at hand, whether compatible or incompatible, may not suffice to give rise to the level of certainty required to determine that a treaty rule has been modified without a single party having explicitly made such a claim. By a similar token, it would seem premature to consider that a customary prohibition of nuclear explosions constitutes an instance of *desuetudo* similarly having modified the Treaty. If NPT, Article V were a customary rule, it may well be considered obsolete due to the fact that the "object to which [it] relates" has "disappeared" (benefits of peaceful nuclear explosions) or the rule itself has become "senseless" (performing peaceful nuclear explosions).[272] Yet, as a treaty rule, Article V may generally only be subject to the grounds of modification and termination detailed within the provisions of the VCLT. These permit *desuetudo* only so far as Article 54(b)[273] pertains to the termination of an entire treaty rather than an individual provision and do not include obsolescence. It

265. Citing, *inter alia*, the previous edition of Joyner, D.H. (2013), *supra* note 30 (Joyner, D.H. (2011), *Interpreting the Nuclear Non-Proliferation Treaty*, Oxford University Press, Oxford, p. 83).
266. Citing Carnahan, B.M. (1987), "Treaty Review Conferences", *American Journal of International Law*, Vol. 81, No. 1, p. 229.
267. For the Draft Conclusions on Subsequent Agreement and Subsequent Practice, with Commentaries, prepared by Special Rapporteur of the International Law Commission, Professor Georg Nolte, see International Law Commission (2018), *Report of the International Law Commission: Seventieth Session*, UNGA Official Records, Seventy-third Session, Supp. No. 10 (A/73/10), p. 86. Coppen shares the view that NPT Review Conference documents may be "illustrative of subsequent agreement and practice" (Coppen, T. (2015), *supra* note 30, p. 147).
268. *Ibid*., International Law Commission (2018), p. 89.
269. NPT, Article VIII(3) illustrates the purpose of reviewing the operation of the Treaty.
270. Wouters, J. and S. Verhoeven (2008), "Desuetudo", in R. Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law* (Online Edition), Oxford Public International Law, available at: https://opil.ouplaw.com/abstract/10.1093/law:epil/9780199231690/law-9780199231690-e1027?rskey=DKhQsY&result=1&prd=EPIL (accessed 6 June 2019).
271. *Ibid*.
272. *Ibid*.
273. VCLT, Article 54(b).

would be possible for a customary rule to derogate Article V, but as illustrated, it is likely premature to advance such a claim, especially in light of the pending entry into force of the CTBT. As a concluding remark, it might also be noted that neither *desuetudo* nor obsolescence, especially based upon grounds outside the VCLT, would satisfy the requirements of legal certainty in treaty relations.

When weighing considerations pertaining to subsequent agreement, *desuetudo* and obsolescence, one question that may arise is whether it is at all possible to *de facto* modify the provisions of a treaty without observing the procedure envisaged therefore (NPT, Article VIII(2) in the present case). In this context, it should be borne in mind that "parties to a treaty own the treaty"[274] and may well modify it without observing the procedural requirements envisaged by it. One particular example of note is that pertaining to Article 27 of the UN Charter, describing the voting procedure of the Security Council. Though the amendment procedure envisaged by the Charter was not observed, the parties have successfully modified the express provisions of the Treaty by adopting the permanent member "veto" procedure.[275]

Finally, it is equally relevant to note that NPT, Article V does not require NWS to maintain their arsenals so that they may furnish NNWS with the benefits of peaceful nuclear explosions. An NPT NWS that has disarmed (Disarmed State or Newly Disarmed State) or becomes a party to the TPNW and disarms (Continuingly Armed State) would simply, if Article V NPT should still be considered operable, fulfil the obligation, the same way any NNWS would.

As a result, perhaps the most reliable conclusion would be to assert that the cited decisions of the parties taken at Review Conferences *permit one of several interpretations, whereby the parties have agreed that Article V has been rendered moot*.

V. Categorisation of prevailing concerns

The analysis performed within the previous sections has revealed that there are currently no known grounds to consider the invalidity,[276] termination[277] or

274. Crawford, J. (2013), "Subsequent Agreements and Practice from a Consensualist Perspective" in G. Nolte (ed.), *Treaties and Subsequent Practice*, Oxford University Press, Oxford, p. 31.

275. See *supra* note 68.

276. Indeed, no state has taken the requisite step of invoking it. With lack of consent (VCLT, Article 46), error (Article 48), fraud (Article 49), corruption (Article 50) and coercion (Article 51) being specific to an individual state, and conflict with a peremptory norm (Article 52) appearing equally unlikely, it would seem appropriate to eliminate invalidity from the present investigation.

277. Similarly, with regard to *termination* and the exception of the withdrawal of the DPRK pursuant to NPT, Article X (see *supra* note 70), no state has withdrawn from the Treaty. No instance of material breach (VCLT, Article 60), impossibility of performance (Article 61), fundamental change of circumstances (Article 62), severance of relations (Article 63) or emergence of a conflicting peremptory norm (Article 64) has been asserted. For the TPNW to terminate the NPT as a later treaty relating to the same subject matter (VCLT, Article 59), in addition to identity of parties, a pertinent intent, or alternately, incompatibility rendering simultaneous application impossible, would have to be established. Considering that the opposite of such intent is reflected within the TPNW (preambular paragraph 18), only incompatibility rendering simultaneous application impossible would come into question. Whether explicit or tacit, only a serious incompatibility or conflict may terminate an earlier treaty, "[i]t must result in the impossibility of applying both treaties – not just two provisions of the two treaties – at the same time" (Pauwelyn, J. (2003), *supra* note 19, p. 283). In any event, lack of requisite party identity permits the definitive ruling out of termination.

illegality[278] of either Treaty. If individual provisions of the NPT were, in fact, *incompatible* with and related to the same subject matter as those of the TPNW, the latter would prevail pursuant to VCLT, Article 30(2). While the NPT does not govern its own compatibility with other agreements, TPNW, Article 18 asserts its prevalence. As a result, between mutual parties the TPNW would prevail. The same would apply even in the absence of any such determination, pursuant to VCLT, Article 30(4)(a) in conjunction with (3), i.e. the *lex posterior* rule. With respect to the principle *lex specialis derogat legi generali*, given that the treaties are successive and neither Treaty contracts out of general international law,[279] individual provisions of the TPNW may, if at all, be considered *leges speciales* insofar as they simultaneously represent *leges posteriores* and thus reconfirm the cited result. Where a, although more specific, rule under the NPT would be incompatible with the TPNW, the latter would nevertheless prevail. This remains without prejudice to state responsibility, which may be triggered by a party to both treaties versus an exclusive NPT state resulting from the conclusion or application of the TPNW.[280]

Despite the prevalence of the TPNW in the event of incompatibility with individual provisions of the NPT and before asserting such circumstance in relation to individual provisions, it is important to note that potential conflicts are best investigated in the awareness of a general presumption against their existence.[281] Rebutting this presumption requires explicit language and evidence to that end, the burden of which is borne by the state asserting the presence of a conflict.[282] Moreover, "[w]hen faced with two possible interpretations, [that] which harmonises […] ought to be preferred".[283] Article 31(3)(c) of the VCLT mandates an interpretation "tak[ing] into account, together with the context … [a]ny relevant rules of international law applicable in the relations between the parties".[284] An interpreter should assume that parties need not reproduce their existing obligations in treaties, having implicitly referred to them instead.[285] Where such referral is explicit, little room for doubt

278. In terms of "*illegality*", there is no explicit prohibition within the NPT that would render the TPNW itself illegal, and the latter constitutes neither a modification (VCLT, Article 41) nor suspension (VCLT, Article 58) of the NPT.
279. Pauwelyn, J. (2003), *supra* note 19, p. 409.
280. VCLT, Article 30(5).
281. Pauwelyn, J. (2003), *supra* note 19, p. 240, citing, *inter alia*: Jenks, W. (1953), "Conflict of Law-Making Treaties" in *British Yearbook of International Law*, Vol. 30, p. 427 ("[i]t seems reasonable to start from a general presumption against conflict"); Akehurst, M. (1974-5), "The Hierarchy of the Sources of International Law" (1974-5), *British Yearbook of International Law*, Vol. 47, p. 275 ("just as there is a presumption against the establishment of new customary rules which conflict with pre-existing customary rules, so there is a presumption against the replacement of customary rules by treaties and vice versa") and the WTO panel report *Indonesia – Certain Measures Affecting the Automobile Industry, complaints by the European Communities (WT/DS54), the United States (WT/DS59) and Japan (WT/DS64)*, panel report adopted on 23 July 1998, para. 14.28 ("in public international law there is a presumption against conflict").
282. *Ibid*., p. 240.
283. *Ibid*., p. 241, citing the Right of Passage case: "[i]t is a rule of interpretation that a text emanating from a Government must, in principle, be interpreted as producing and as intended to produce effects in accordance with existing law and not in violation of it." (*Case Concerning Right of Passage over Indian Territory (Portugal v. India) (Preliminary Objections), Judgment, ICJ Reports 1957*, p. 142).
284. VCLT, Article 31(3)(c).
285. Pauwelyn, J. (2003), *supra* note 19, p. 240, citing Srenson: "Le texte est considéré comme partie du système global du droit international et l'interprétation se propose de le mettre en harmonie avec la réglementation générale de celui-ci. La présomption sur laquelle se base cette méthode d'interprétation est que les contractants, en rédigeant le traité, sont partis de certaines données qu'il n'était pas besoin de reproduire dans le texte, et auxquelles ils se sont référés tacitement." [The text is considered a component of the

remains. As a result, with incompatibility less than clearly established, it would appear prudent to first take every effort to render a harmonising interpretation.

In light of the analysis performed, NPT, Article V, stipulating rights and obligations pertaining to peaceful nuclear explosions, appears to constitute the only provision of the Treaty that may conflict with the TPNW, particularly the prohibition of use under Article 1(d). Pursuant to one interpretation, NPT, Article V has been rendered obsolete by subsequent agreement of the parties. Any state party to both treaties might be presumed to subscribe to that or a similar *harmonising interpretation*.

VI. Conclusion

Resting upon its three pillars, the NPT has withstood the test of time during mounting dissatisfaction over lacking disarmament progress. Itself envisaging a treaty that would eliminate nuclear weapons, the present analysis has sought to determine whether the TPNW is that, necessarily compatible, agreement. This investigation concludes that the TPNW in no way imposes upon peaceful use while adding remediation, complements non-proliferation with reinforced prohibition and sets out to fulfil the promise of elimination that disarmament holds.

Rather than being incompatible, or merely weakening the NPT, the TPNW may in fact revitalise it by incorporating three components that have been suggested[286] as necessary to that end: i) complementing Article VI; ii) integrating non-NPT states parties; and iii) institutionalising the elimination of nuclear weapons. In this sense, assenting parties are not engaging in conflicting treaty relations but complying with and even implementing their obligations.

One recurring *motif* throughout the exploration of suggested and potential conflicts between the treaties has been the insight that these largely pertain not to what the NPT stipulates but what it has left out. The questions of whether the outbreak of armed conflict enables transfer of control, ultimate acts of nuclear self-defence are invariably unimpeachable, permissibility of sharing is implied, or manufacturing assistance may be lent between armed states: all these are matters that have been highly contentious in light of the alleged silence of the NPT, but none of them are rooted in rights conferred by its terms.

The absence of a prohibition cannot be equated with the presence of a right. Banning possession thus may face only facts but no rules with which it could interfere. The same holds true with respect to overlapping decisions that may be taken at the respective review conferences or meetings of states parties. Though safeguards provisions under the ban treaty differ in standards and deadlines from those under the NPT, they supplement and in no way contradict the established system.

In one respect, the terms of the treaties seem difficult to reconcile. Despite the consensus that these currently do not exist, benefits of peaceful nuclear explosions as envisioned by the NPT are legally rendered impossible under the TPNW. One interpretation of the NPT, taking into account as subsequent agreement the decisions of the parties upon review of the Treaty, renders the treaties compatible. A survey of

global system of international law, and interpretation is intended to harmonise it with the latter's general rules. This method of interpretation is based upon the presumption that the contracting parties, when drafting the treaty, built upon certain facts that they did not need to reproduce in the text and to which they have tacitly referred.] (Srenson, M. (1946), *Les Sources du Droit International* [The Sources of International Law], E. Munksgaard, Copenhagen, pp. 226-227).

286. Burroughs, J. (2007), *supra* note 244, p. 33.

applicable conflict rules has concluded that parties may be presumed to subscribe to such harmonising interpretation.

The TPNW ventures far beyond the limits of the NPT, stipulating wider, but never conflicting obligations. Future states parties to both agreements, especially Continuingly Armed States and Sharing States should fear that conduct which was hitherto legally permitted or ambiguous, may well breach the prohibitions of the ban treaty. But not, by virtue of a conflict with the NPT.