Towards a Ban of Anti-Satellite (ASAT) Weapons Tests? Exploring Possible Pathways in Light of Recent Developments

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Abstract

Anti-satellite weapons testing may have long-term negative impacts on the space environment, as the pieces of debris they generate pose a risk for future space operations. Moreover, any such a test brings about the specter of an armed race in outer space. That notwithstanding, these tests are not prohibited under the current international legal regime. This contribution examines the most recent developments in the practice of States and international organizations concerning anti-satellite weapons tests with a double aim. First, it investigates whether the unilateral declarations by which certain States have committed not to conduct destructive direct-ascent anti-satellite missile testing hold legal significance per se*. Second, it questions whether these declarations may be considered as relevant State practice and* opinio juris *for the purpose of identifying a customary rule prohibiting anti-satellite weapons testing. In this respect, particular attention is also paid to Resolution No. 77/41 of 7 December 2022, by which the United Nations General Assembly called upon all States to commit not to conduct destructive direct-ascent missile tests, in order to assess whether it provides further evidence concerning the formation of a customary rule. In the end, the contribution evaluates the possible way forwards.*

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1. Introduction

That Anti-Satellite (ASAT) weapons[(1)] tests may have long-term negative impacts for the space environment became evident when, in October 2022, the pieces of debris generated by a direct-ascent ASAT weapon test performed on 15 November 2021 by the Russian Federation targeting one of its old satellites[(2)] threatened to hit the International Space Station (ISS). Even if eventually no collision occurred, the ISS had to make evasive maneuvers to minimize the risks.[(3)]

The Russian Federation is not the only State that has conducted ASAT weapons tests so far. As it is well-known, in January 2007 the Peoples' Republic of China also performed a direct-ascent ASAT weapon test, destroying one of its non-operational weather satellites.[(4)] India and the United States have been also acting in a similar way. According to a compilation created by the NGO Secure World Foundation, which was made public for the first time in June 2020 and later updated in 2022, more than 80 ASAT weapons tests of different nature (both direct-ascent, i.e.

（1） This expression is used in this contribution to refer to all weapons that may destroy or damage a satellite.

（2） On this test and the immediate risk it posed to the ISS, see Anand S. et al. (2021). Bringing Order to Orbital Chaos? ASAT Weapons Tests and the Outer Space Regime. *Volkerrechtsblog*. Retrieved from https://voelkerrechtsblog.org/bringing-order-to-orbital-chaos/.

（3） For a full report see Tingley B. (2022). International Space Station Dodges Space Debris from Russian Anti-Satellite Test. *Space.com*. Retrived from Space station dodges debris from Russian anti-satellite test | Space.

（4） See von der Dunk F. (2007). Target Practicing in a Global Common: The Chinese ASAT Test and Outer Space Law. *Korean Journal of Air and Space Law*, 22, 46-65.

using missiles that can target satellites without being placed in orbit, and co-orbital, i.e. using an interceptor which is placed into orbit) have been performed by the four aforementioned States since 1963.(5) The compilation also shows that, whereas most of these tests date back to the beginning of the Cold War, their number has increased since the mid-2000s, when States other than the two superpowers have started experimenting with ASAT weapons.

As the ISS example demonstrates, ASAT weapons tests that destroy space objects generate large amounts of debris, which, in turn, represent a long-lasting risk for crewed and uncrewed space activities. Moreover, when States resort to these tests, it does not only exacerbate the threat that debris poses to the space environment and to the long-term sustainability of the outer space, it also raises the specter of an arms race in space on the horizon.(6) In fact, modern societies increasingly depend on satellite systems for both civil and military purposes, making such satellites an attractive target for offensive action. The conduct of ASAT weapons tests, even when not directed against another State' satellites, demonstrates that the testing State possesses the technical capabilities necessary to target a satellite. It thus not surprising that the institution of the United States Space Force in December 2019 has been considered a reaction, inter alia, to the growing capability of other States to conduct ASAT weapons tests.(7)

It is against this background that on 18 April 2022, the Vice-President of the

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（5） This compilation is available at the website: https://docs.google.com/spreadsheets/d/1e5GtZEzdo6xk41i2_ei3c8jRZDjvP4Xwz3BVsUHwi48/edit#gid=1252618705.

（6） See, e.g., Nyamuya Maogoto J. & Freeland S. (2007). Space Weaponization and the United Nations Charter Regime on Force: A Tick Legal Fog or a Receding Mist? *The International Lawyer*, 41, 1092.

（7） Gupta R. (15 August 2022). Does the Establishment of Specialized Space Military Corps Ipso Facto Violate International Law? *OpinioJuris*. Retrieved from http://opiniojuris.org/.

United States, Kamala Harris, announced, during a visit to Vandenberg Air Force basis, that "as of today, the United States commits not to conduct destructive direct-ascent anti-satellite missile testing".[8]

This statement by the United States has been followed by several other States, including Canada and New Zealand in May and July 2022 respectively, and later by Australia, Austria, France, Germany, Italy, Japan, the Netherlands, South Korea, Switzerland and the United Kingdom.[9]

In parallel with this spread of declarations by individual States, the United Nations (UN) General Assembly approved a resolution on 7 December 2022 by which it "called upon all States to commit not to conduct destructive direct-ascent missile tests".[10]

This contribution aims at assessing the legal significance of these recent developments concerning ASAT weapons testing. To this end, section 2 will outline the relevant international legal framework, while sections 3 and 4 will evaluate if, and to what extent, the commitments that have been announced create legal obligations for States and/or if they may be seen as the harbinger of the development of positive law on the matter.

2. ASAT weapons testing under international law: setting the scene

Despite the dismay and protests surrounding any ASAT armaments test, no express rule of the so-called *corpus juris spatialis* prohibits the testing or deployment

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（8） The White House, Remarks by Vice-President Harris on the Ongoing Work to Establish Norms in Space, 18 April 2022.

（9） See *infra*, section 3.

（10） See UN General Assembly's resolution No. 77/41 of 7 December 2022, UN Doc. A/RES/77/41 of 12 December 2022.

of these weapons or their placement in outer space.[11]

Article IV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty)[12] forbids States "to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner". It does not, however, prohibit the placement in orbit or the stationing in outer space of non-nuclear weapons which do not amount to "weapons of mass destruction",[13] such as ASAT weapons.[14] Moreover, this provision does not say anything regarding the temporary transit through outer space of any type of armament – including ASAT weapons.[15]

Article IV continues by stating that "the moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes" and that "the establishment of military bases, installations and fortifications, the *testing of any type of weapons* and the conduct of military manoeuvres on celestial bodies shall be forbidden" (emphasis added). This prohibition, however, only applies to the moon

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(11) For an assessment of the legality of ASAT weapons under the international space law regime see Chatterjee P. (2014). Legality of Anti-Satellites under the Space Law Regime. *Astropolitics*, 12, 27-45.

(12) Washington, Moscow and London, 27 January 1967, entered into force on 10 October 1967.

(13) That are nuclear, chemical and biological weapons. See Strydom H.A. (2017) Weapons of Mass Destruction. *Max Planck Encyclopedia of Public International Law*, online version. Retrieved from https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e445.

(14) On Article IV OST and ASAT see Tronchetti F. (2015), Legal Aspects of the Military Uses of Outer Space. In von der Dunk F. & Tronchetti F. (Eds). *Handbook of Space Law*. Cheltenham, Northampton: Elgar, 337.

(15) See Koplow D.A. (2009). ASAT-isfaction: Customary International Law and the Regulation of Anti-Satellite Weapons. *Michigan Journal of International Law*, 30, 1198.

and other celestial bodies, leaving untouched the question of whether ASAT weapons may be lawfully tested or deployed in space. Moreover, the expression "peaceful purposes" has been generally interpreted so to mean "non-aggressive", rather than "non-military". As a result, the use of ASAT weapons in outer space would be lawful unless aggressively directed to target other States' space assets.

Similarly, arms control agreements do not limit ASAT weapons testing in peacetime.[16] Treaties prohibiting States from carrying out weapons experiments in outer space do not apply to ASAT armaments. The 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water (so-called Partial Test Ban Treaty)[17] limits, for instance, only *nuclear* tests in the atmosphere and outer space.[18] Likewise, the 1996 Comprehensive Nuclear Test Ban Treaty[19] forbids only *nuclear experiments* in any environments, including the outer space.

Doubtless, certain arms control treaties have been interpreted as to indirectly prohibit the use to ASAT weapons. However, either such treaties have expired, or they would prevent the use of this type of arms only in very specific circumstances, which do not include unaggressive testing. One example in this respect is Article XII of the Anti-Ballistic Missile Treaty, concluded between the United States of America and the Soviet Union in 1972.[20] Pursuant to this provision, the two States reciprocally committed not to "interfere with the national technical means of verification of the other Party", the main types of which, at the time, were "artificial satellites".[21] Arguably, this norm would prevent both the deployment of ASAT weapons targeting

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（16） On ASAT weapons under international humanitarian law see, inter alia, Mauri D. (2022). Conflitti armati e spazio extra-atmosferico: il caso delle armi anti-satellite. In Vellano M. & Miglio A. (Eds.), *Sicurezza e difesa comune dell'Unione europea*. Milano: CEDAM. 293-308.

（17） Moscow, 5 August 1963, entered into force, 10 October 1963, 480 UNTS 43.

（18） Article I.

（19） New York, 24 September 1996. This Treaty has not entered into force yet.

（20） Moscow, 26 May 1972, entered into force on 3 October 1972.

other States' spacecrafts and their testing against a State's own satellites. The former conduct would indeed interfere with the "means of verifications" of other States, and the latter could create space debris that poses a threat to space operations of all States. In 2001, however, the United States decided to withdraw from the treaty as a necessary step to develop a missile defence system.

The Convention on the Prohibition of Military and Other Hostile Use of Environmental Modification Techniques[(22)] instead prohibits State parties from engaging "in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party". It has been observed that this provision could be interpreted, at least *prima facie*, as prohibiting the resort to destructive ASAT weapons, which, as stated, may have long-lasting negative effects on the outer space environment. According to this view, these weapons would fall within the notion of "environmental modification techniques" insofar as they apply "techniques for changing – through the deliberate manipulation of natural processes – the dynamic, composition or structure (…) of the outer space".[(23)] However, it is debatable whether the creation of space debris can indeed change the composition or structure of the outer space.[(24)] Moreover, such a ban would not cover tests lacking an "hostile" dimension, such as those performed by a State against its own satellites without the intent to destroy, damage or injure another State party.[(25)]

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(21) See Tronchetti F. (2015). Legal Aspects of the Military Uses of Outer Space. In von der Dunk F. & Tronchetti F. (Eds). *Handbook of Space Law*. Cheltenham, Northampton: Elgar, 347 and Burton A. (1988). Daggers in the Air: Anti-Satellite Weapons and International Law. *The Fletcher Forum*, 12, 147.

(22) New York, 10 December 1976, entered into force on 5 October 1978, 1108 UNTS 151.

(23) Ibidem, Article II.

(24) See Su J. (2013). The Environmental Dimension of Space Arms Control. *Space Policy*, 29, 60.

Notably, not even the Draft Treaty on the Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects (the so-called Draft PPWT) –which represents, so far, the most advanced attempt to reach an agreement on a multilateral instrument preventing the weaponization of outer space – enshrines a comprehensive ban of ASAT weapons. In fact, the text of the Draft Treaty, which was first proposed within the Conference on Disarmament in 2008 by the People's Republic of China and the Russian Federation[(26)] and that was later updated in 2014,[(27)] leaves open the possibility for States to deploy and test ground-based ASAT weapons. Remarkably, the absence of an express ban on direct-ascent ASAT weapons tests launched from the ground has sparked other States' criticism against the proposed text, and has been one of the factors undermining its success.[(28)]

That stated, an indirect prohibition of ASAT weapons testing could be inferred from soft law instruments, such as the Space Debris Mitigation Guidelines of the

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（25） See again Tronchetti F. (2015). Legal Aspects of the Military Uses of Outer Space. In von der Dunk F. & Tronchetti F. (Eds). *Handbook of Space Law*. Cheltenham, Northampton: Elgar, 345.

（26） Letter dated 12 February 2008 from the Permanent Representative of the Russian Federation and the Permanent Representative of China to the Conference on Disarmament addressed to the Secretary-General of the Conference transmitting the Russian and Chinese texts of the draft "Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects" (PPWT), Doc. CD/1839 of 29 February 2008.

（27） See the statement by Ambassador A. Borodavkin of the Russian Federation to the Conference on Disarmament on 10 June 2014. On this new draft see Tronchetti F. & Hao L. (2015). The 2014 Updated Draft PPWT: Hitting the Spot or Missing the Mark?. *Space Policy*, 33, 38-49.

（28） See the United States remarks for Conference on Disarmament Subsidiary Body 3, 22 March 2022: "(…) our reasons for not supporting the PPWT are further demonstrated in the development of anti-satellite weapons by countries that seek to deny other countries the use and benefits of outer space through ground-based systems, which represent the most pressing threats to on orbit systems today".

Committee on the Peaceful Uses of Outer Space.[29] Guideline 4 provides, in fact, that: "(…) the intentional destruction of any on-orbit spacecraft and launch vehicle orbital stages (…) should be avoided". Yet, these documents are not legally binding, amounting to mere recommendations.[30]

The lack of a ban of ASAT weapons tests does not mean that States are not subject to any limits in conducting such activities. Pursuant to Article IX of the Outer Space Treaty "in the exploration and use of outer space, including the moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of co-operation and mutual assistance and shall conduct all their activities in outer space, including the moon and other celestial bodies, with due regard to the corresponding interests of all other States Parties to the Treaty". Accordingly, "if a State Party to the Treaty has reason to believe that an activity or experiment planned by it or its nationals in outer space, including the moon and other celestial bodies, would cause potentially harmful interference with activities of other States Parties in the peaceful exploration and use of outer space, including the Moon and other celestial bodies, it shall undertake appropriate international consultations before proceeding with any such activity or experiment".

ASAT weapons tests against a State's own satellites, by producing thousands

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(29) See Official Records of the General Assembly, Sixty-second Session, Supplement No. 20 (A/62/20), paras. 117 and 118 and annex. These Guidelines have been endorsed by the UN General Assembly in resolution 62/217 of 22 December 2007, UN Doc. A/RES/62/217 of 1st February 2008.

(30) For another example (less successful) see the Draft International Code of Conduct for Outer Space Activities, proposed by the European Union from 2008. Article 4.2 of the Draft Code required States to "refrain from any intentional action which will or might bring about, directly or indirectly, the damage or destruction of outer space objects unless such action is conducted to reduce the creation of outer space debris and/or justified by imperative safety consideration". See Council of the European Union, Doc. PESC 1697/98, 17 December 2008.

of pieces of debris which pose a threat to activities and objects in orbit, would arguably result in potentially harmful interference with the activities of other States in the peaceful exploration and use of outer space.(31) Moreover, the State could hardly rely on the argument that it did not have reasons to believe that the test would cause an harmful interference, given that the technical capabilities to undertake such a test imply a high level of awareness concerning its possible consequences.(32) Therefore, such tests, if carried out by a State party to the Outer Space Treaty without previously engaging in appropriate international consultations, would allegedly be in breach of Article IX. As has been observed, while this provision does not explain what "appropriate" means, such expression could be interpreted so to require, at a minimum, notification to the affected States in order to allow them to take all necessary preventive actions.(33)

In the same vein, it has been argued that international environmental rules would be relevant as well with respect to ASAT weapons testing.(34) Article IX of the Outer Space Treaty requires States Parties to avoid the harmful contamination of outer space and celestial bodies when pursuing studies of them and conducting their

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（31） On this matter see Mineiro M.C. (2008). *FY-C* and *USA-193* ASAT Intercepts: An Assessment of Legal Obligations under Article IX of the Outer Space Treaty. *Journal of Space Law*, 34, 321-356.

（32） Ibidem, 343.

（33） Ibidem, 344. Arguably, Japan implicitly referred to a violation of Article IX of the Outer Space Treaty, when it declares, after the Chinese ASAT test of 2007, that "it was not compliant with basic international rules, such as the Outer Space Treaty". See Manriquez M. (31 December 2007). Japan's Space Law Revision: The Next Step Towards Re-Militarization?. *Nuclear Threat Initiative*. Retrieved from Japan's Space Law Revision: the Next Step Toward Re-Militarization? (nti.org).

（34） Su J. (2020). The Legal Challenge of Arms Control in Space. In Steer C. & Hersch M. (Eds.), *War and Peace in Outer Space: Law, Policy and Ethics*. Oxford: Oxford University Press, 181-201.

exploration. This part of the provision, which has been interpreted so to apply also to the "use" of outer space,[35] has been convincingly regarded as a transposition into the space realm of the customary no-harm rule, which imposes on States the obligation to take preventive actions in order to avoid any significant environmental harm to the territory of other States or to areas beyond any State's national jurisdiction.[36] Moreover, even if one did not accept the above reading of Article IX, States' conduct in outer space would, in any event, be subject to the respect of the no-harm rule by virtue of Article III of the Outer Space Treaty, which requires States Parties to undertake activities in the exploration and use of outer space *in accordance with international law*. ASAT weapons tests, by producing a large amount of space debris, would cause a significant harm to an area beyond States' jurisdiction and, as a result, would fall within the scope of application of the no-harm rule[37].

Notably, it has been argued that this norm, if read together with the above-mentioned Space Debris Mitigation Guidelines, would prohibit any ASAT weapons tests.[38] However, the majority view holds that such a flat ban does not exist, and rather infers from the no-harm rule an obligation of diligent conduct for States testing ASAT armaments: they should notify the international community in advance of any such tests and engage in international consultations as a way to minimize the harm

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（35） See Zannoni D. (2022). Out of Sight, Out of Mind? The Proliferation of Space Debris and International Law. *Leiden Journal of International Law*, 35, 301.

（36） Stubbe P. (2017). *State Accountability for Space Debris. A Legal Study of Responsibility of Polluting the Space Environment and Liability for Damage Caused by Space Debris*. Leiden, Boston: Brill, 197.

（37） Ibidem. Moreover, it could be argued that other international environmental law principle would apply, such as, for instance, the principle of integration, which requires that environmental considerations are taken into account in the decision process concerning any development project.

（38） This debate is reported by Zannoni D. (2022). Out of Sight, Out of Mind? The Proliferation of Space Debris and International Law. *Leiden Journal of International Law*, 35, 309.

caused by the creation of space debris.[39] In this way, the no-harm rule would end up imposing the same limits as those set by the prohibition of harmful interference also required under Article IX of the Outer Space Treaty.

It is against this international legal framework – that does not expressly prohibit ASAT weapons tests – that recently several States have declared their pledge not to undertake direct-ascent ASAT missiles tests and that the UN General Assembly adopted Resolution No. 77/41, calling States to commit not to experiment them.

3. States' unilateral declarations on ASAT weapons tests and their binding effects

Since 18 April 2022, unilateral commitments not to perform destructive direct-ascent anti-satellite missile tests have flourished. Several States have followed in the United States' footsteps by means of declarations which referred to or reproduced in all respects Kamala Harris' speech at the Vandenberg Air Force Base. For instance, on 9 May 2022, the Permanent Mission of Canada announced on Twitter that it would join the United States' pledge not to conduct destructive ASAT missile testing. The commitment was then reiterated in Canada's statement at the first session of the Open-Ended Working Group on reducing space threats through norms, rules and principles of responsible behaviors (hereinafter Open-Ended Working Group),[40] which took place in Geneva between 9 and 13 May 2022.[41]

（39） Ibidem, 310.

（40） The decision to convene the Group was taken by the General Assembly through Resolution 76/231, see UN Doc. A/RES/76/231 of 30 December 2021. The Group, whose task is to "make recommendations on possible norms, rules and principles of responsible behaviours relating to threats by States to space systems, including, as appropriate, how they would contribute to the negotiation of legally binding instruments, including on the prevention of an arms race in outer space", should terminate its work in August 2023.

On 1 July 2022, the Ministry of Foreign Affairs of New Zealand, in a speech at the University of Otago, affirmed that its country will also join the United States in not conducting destructive direct-ascent anti-satellite missile testing.(42) Germany and Japan made the same commitment during the second session of the Open-Ended Working Group, which took place in Geneva from 12 to 16 September 2022.(43) On 12 September 2022, in fact, Ambassador Ogasawara Ichiro, permanent representative of Japan to the Conference of Disarmament in Geneva, stated that: "Japan commits not to conduct destructive, direct-ascent anti-satellite (…) missile testing and joins the US commitment announced in April".(44) The Ambassador reiterated Japan's commitment in a statement that he delivered on 30 January 2023 at the third session of the Open-Ended Working Group.(45)

On 3 October 2022, the United Kingdom also committed not to destructively test direct-ascent ASAT weapons by means of a joint announcement by the UK Space Agency and the Ministry of Foreign Affairs.(46) The day after, the permanent representative of South Korea at the United Nations also announced his State's same commitment, albeit in the context of the third plenary meeting of the UN General

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(41) The statement, of 9 May 2022, is available at: Canada-General-Statement-for-Translators-OEWG-Space-Threats-Session-bilingual.pdf (unoda.org).

(42) The statement is available at: https://www.beehive.govt.nz/speech/otago-foreign-policy-school-opening-address.

(43) The statement, of 13 September 2022, is reported at: Microsoft Word - 220913 Statement by Germany on 13 September.docx (unoda.org). It was announced by Germany that it "commits not to conduct destructive, direct-ascent anti-satellite missile testing".

(44) The statement of Japan is available at the website of Japan's delegation to the Conference on Disarmament: Foreign Policy News | Delegation of Japan to the Conference on Disarmament (emb-japan.go.jp).

(45) Ibidem.

(46) See the press release at: Responsible space behaviours: the UK commits not to destructively test direct ascent anti-satellite missiles - GOV.UK (www.gov.uk).

Assembly's First Committee.[47] Similarly, on 26 October 2022, in the context of the thematic debate on outer space of the UN General Assembly's First Committee, the permanent representative of the Swiss Confederation at the United Nations expressed appreciation for the "annonces faites par un certain nombre d'États de ne pas effectuer d'essais destructifs de missiles antisatellites à ascension directe dans l'espace" and announced that "la Suisse se joint à cet engagement".[48] These statements were followed, on 27 October 2022, by an announcement along the same lines of Australia's Ministries for Defense and for Industry and Science.[49]

France joined the abovementioned States on 29 November 2022, when the Ministry of Europe and Foreign Affairs and the Ministry for the Armed Forces issued a joint communique by which they announced the country's pledge not to conduct destructive direct-ascent anti-satellite missiles tests.[50] The Netherlands communicated on 30 January 2023 that it was ready to join the other States and definitely committed not to conduct such tests on 27 February 2023. This declaration was followed by those of Austria and Italy, which made the same commitment respectively on 3 March and 6 April 2023.[51]

Against this surge of unilateral declarations concerning ASAT weapons testing, the question arises of whether they have any legal significance.

It is well known that, under international law, unilateral declarations of States may create legal obligations.[52] The International Court of Justice (ICJ) has recognized this circumstance since 1974, when, in its judgments related to the

(47) The meeting is available at: First Committee, 3rd plenary meeting - General Assembly, 77th session | UN Web TV.

(48) The statement is available at: First name Name 18 (reachingcriticalwill.org).

(49) The statement is available at: Australia advances responsible action in space | Australian Minister for Foreign Affairs (foreignminister.gov.au).

(50) The statement is available on the website of the French Ministry of Europe and Foreign Affairs at News - Ministry for Europe and Foreign Affairs (diplomatie.gouv.fr).

Nuclear Test Cases, it stressed that

> “declarations made by way of unilateral acts, concerning legal or factual situations, may have the effect of creating legal obligations. (…) When it is the intention of the State making the declaration that it should become bound according to its terms, that intention confers on the declaration the character of a legal undertaking, the State being thenceforth legally required to follow a course of conduct consistent with the declaration. An undertaking of this kind, if given publicly, and with the intent to be bound, even though not made within

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(51) Concerning the Netherlands, see the statement available at: 230130_OEWG_Space_Threats_Sessie_3_-_Opening_statement_Netherlands.pdf (unoda.org), and the statement of the Deputy Prime Minister and Minister of Foreign Affairs of the Netherlands at the High-level Segment of the Conference on Disarmament in Geneva, available at: https://www.permanentrepresentations.nl/documents/speeches/2023/2/27/conference-on-disarmament-gva-statement-minister-dutchmfa. Austria’s statement at the Conference of Disarmament is available at: https://meetings.unoda.org/meeting/66418/statements?f%5B0%5D=author_statements_%3AAustria%20/%20Ms.%20D%C3%A9sir%C3%A9e%20SCHWEITZER. The statement of Italy’s Deputy Prime Minister is available at: https://www.esteri.it/en/sala_stampa/archivionotizie/comunicati/2023/04/dichiarazione-del-vicepresidente-del-consiglio-tajani-in-merito-allimpegno-dellitalia-a-non-condurre-test-distruttivi-di-missili-anti-satellite-ad-ascesa-diretta/.

(52) On this subject see, ex multis, Rubin A. P. (1977). The International Legal Effects of Unilateral Declarations. *American Journal of International Law*, 71, 1-30; Saganek P. (2006). *Unilateral Acts of States in International Law*. Leiden, Boston: Nijhoff; Eckart C. (2012). *Promises of States under International Law*. London: Bloomsbury Publishing; Kassoti E. (2015). *The Juridical Nature of Unilateral Acts of States in International Law*. Leiden, Boston: Brill; Rodriguez Cadeño V. & Torres Cazorla M. I. (2019). Unilateral Acts of States in International Law. *Max Planck Encyclopedia of Public International Law*, online version. Retrieved from https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1496. On the interpretation of unilateral acts see also Orakhelashvili A. (2008). *The Interpretation of Acts and Rules in Public International Law*. Oxford: Oxford University Press, 465 ff.

the context of international negotiation, is binding".[53]

The International Law Commission (ILC) also upheld that binding force may be attributed to unilateral declarations of States. In fact, according to Principle 1 of its 2006 Guiding Principles applicable to unilateral declarations of States capable of creating legal obligations (hereinafter Guiding Principles), "declarations publicly made and manifesting the will to be bound may have the effect of creating legal obligations. When the conditions for this are met, the binding character of such declarations is based on good faith (…)".[54] It stems from both the ICJ's case law and the ILC's Guiding Principles that the intention of the States to commit themselves represents the main condition to confer legally binding force on unilateral declarations.[55] This intention should be "manifest", meaning that it should have been made known to the outside world, the State's inner will being irrelevant.[56]

It is debated whether publicity and unilateralism – that is, the fact that no acceptance of other parties is needed – are also requirements to attribute legal effects to unilateral declarations. It has been argued in legal literature that the former element, while mentioned by the ILC in its Guiding Principles in a way to suggest it being a condition for conferring legally binding effects to unilateral declarations, would only amount to evidence of the manifest will of States to be bound.[57]

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(53) See ICJ, Nuclear Tests Case (Australia v. France; New Zealand v. France), judgment of 20 December 1974, ICJ Reports 1974, paras. 43 and 46.

(54) With commentaries, in Yearbook of the International Law Commission, 2006, vol. II, Part Two. See also UN General Assembly's resolution No. 61/34, by which the Assembly took note of the Guiding Principles, UN Doc. A/RES/61/34 of 18 December 2006.

(55) See also ICJ, Case concerning the Frontier Dispute (Benin v. Niger), judgement of 22 December 1986, ICJ Report 1986.

(56) On this specific point see Kassoti E. (2022). Interpretation of Unilateral Acts in International law. *Netherlands International Law Review*, 69, 308 ff.

(57) Ibidem, 301.

Conversely, the latter element, while not taken into account by the ILC, would allow distinguishing between unilateral declarations having legally binding effects *per se* and unilateral declarations whose legally binding force derives from other legal regimes.[58]

What it is instead certain is that, according to both the ICJ's case law and the ILC Guiding Principles, to determine the legal effects of a unilateral declaration, it is necessary to consider its actual content and the circumstances in which it was made.[59] As to the first point, it is imperative that the declaration is made in clear and specific terms.[60] In the case of doubt, however, one should adopt a restrictive interpretation, considering the text, but also the context and the circumstances in which the declaration was formulated.[61] This will allow understanding whether the State intended to be bound and the exact scope of the legal obligations imposed on it.

The reaction of other States to a State's declaration is also relevant to determine its legal effects.[62] On the contrary, the form in which the declaration is made does not hold any value. As noted by the ICJ, "whether a statement is made orally or in writing makes no essential difference (…) Thus the question of form is not decisive".[63] Likewise, the declaration can be addressed either to the international community or to one or several States or to other entities, without this circumstance been determinant.[64]

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(58) Ibidem, 305.

(59) See Principle 3 of the ILC Guiding Principles. See also, inter alia, ICJ, Armed Activities on the Territory of the Congo (New Application: 2002) (Democratic Republic of the Congo v. Rwanda), judgment of 3 February 2006, ICJ Report 2006, para. 49.

(60) Principle 7 of the ILC Guiding Principles.

(61) Ibidem.

(62) See again Principle 3 of the ILC Guiding Principles.

(63) See again ICJ, Nuclear Tests Case (Australia v. France; New Zealand v. France) cit., paras. 45 and 48. See also Principle 5 of the ILC Guiding Principles.

Once it has been made, a declaration binds the State internationally only if it is issued by an authority vested with the power to do so, such as Heads of States, Heads of Governments or Ministries of Foreign Affairs.(65) Clearly, only the State that is the author of the declaration is bound by it. Other States concerned cannot be bound unless they clearly accepted it.(66)

Whatever their effective purpose, the public statement made by the United States Vice-President in April 2022 concerning direct-ascent ASAT missiles tests and those that followed by other States apparently manifested the intention of the authors to undertake a legal obligation not to carry out such tests. The recurrent use of the term "commit" in the text of the declarations, the precise timeframe indicated by the United States – "as of today" – which other States also used,(67) as well as the reference to a specific type of ASAT weapons tests – direct-ascent ones – support the conclusion that the States authors of these declarations were willing to undertake a legal obligation *vis-à-vis* the international community (*erga omnes*). As a result, the States concerned unilaterally committed with binding effect not to conduct direct-ascent ASAT missiles tests. They retained instead the right to undertake on-orbit ASAT weapons testing to the extent that this is not prohibited under international law.(68)

The legal effects of these declarations are further confirmed by the way in which they have been received by other States. Other actors have indeed welcomed

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（64） Principle 6 of the ILC Guiding Principles.

（65） Principle 4 of the ILC Guiding Principles.

（66） Principle 9 of the ILC Guiding Principles.

（67） On the relevance of a precise time reference see ICJ, Armed Activities on the Territory of the Congo (New Application: 2002) (Democratic Republic of the Congo v. Rwanda), *supra* note 60, para. 51.

（68） Notably, even if the text would not have been so clear, the restrictive interpretation criterion that needs to be followed any time a declaration limits a State's rights would have conducted to the same conclusion.

them by referring to the appreciable commitments undertaken.[69] Moreover, their legal binding character has not been publicly denied.

Finally, the fact that most of these declarations have been made orally does not prevent the conclusion that they do bind the States that issued them, given that, as has been already noted, the chosen form does not impact on their legal value.

Two objections can be raised against the above assumption, however. First, one could note that several declarations concerning direct-ascent ASAT missile tests have not originated from Heads of States or Governments or from Ministries of Foreign Affairs. However, it is well-recognized today that "other persons representing the State in specified areas may be authorized to bind it, through their declarations, in areas falling within their competence".[70] As noted by the ICJ, this applies, for example, to other Ministries exercising powers in their field of competence in the area of foreign relations, and even to other officials.[71] In this regard, most of the declarations concerning direct-ascent ASAT weapons tests have been made by Ministries or permanent representatives of the States at the United Nations, who expressly spoke on behalf of the States and whose competences include the prevention of an arms race in outer space. In the case of the United States, moreover, the declaration was issued by the Deputy Head of State, acting within her functions.

Second, one could wonder whether the very circumstances in which these declarations were made – in connection or during the activities of an Open-Ended Working Group concerning the reduction of space threats through *norms, rules* and

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(69) See, for instance, the statement made by the European Union during the third session of the Open-Ended Working Group on 31 January 2023. See 0131_OEWG_on_reducing_space_threats_EU_Statement_As_delivered.pdf (unoda.org).

(70) Principle 4 of the ILC Guiding Principles.

(71) See again ICJ, Armed Activities on the Territory of the Congo (New Application: 2002) (Democratic Republic of the Congo v. Rwanda), *supra* note 60, p. 47.

principles of responsible behaviors – would attribute to them only a symbolic value; thus, rather than undertaking a legally binding obligation, States would have only expressed their political support for the negotiation of a general moratorium of direct-ascent ASAT missile tests. Yet, this reading would clash not only with the clear and specific text of the declarations, as better illustrated above, but also with the fact that these declarations have been welcomed as a *concrete* and *measurable* step towards a more secure outer space,(72) which would not be the case if they did not incorporate a legally binding undertaking.

4. Beyond unilateralism: the beginning of a customary process?

It follows from the above that several States have bound themselves, by way of unilateral declarations, not to conduct direct-ascent ASAT missiles tests. But do these declarations have further legal significance? More specifically, can they represent relevant State practice or *opinio juris* for the purpose of the identification of a customary international rule banning direct-ascent ASAT weapons tests?(73) In other words, can the United States' declaration of 18 April 2022 be considered as the starting point of a customary process leading to a new norm of international law, as it happened for the Truman Proclamation on the continental shelf in 1945?(74)

Apart from their direct legal effects, States' declarations, "depending on the legal context in which they are made, (…) may be regarded as – unilateral or multilateral – acts of State practice or as evidence of a certain *opinio iuris"*.(75) *"*Official statements on the international plane" fall indeed within the meaning of the expression "executive conduct", which, according to the ILC Draft Conclusions on

(72) See again the statement made by the European Union during the third session of the Open-Ended Working Group on 31 January 2023.

Identification of Customary International Law, can amount to a form of relevant State practice.[76] Moreover, pursuant to the same Draft Conclusions, public statements made on behalf of the State are included among the forms of evidence of acceptance

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(73) Among the countless studies on customary international law and its identification (as well as the problems stemming from it) see Alvarez-Jimenez A. (2011). Methods for the Identification of Customary International Law in the International Court of Justice's Jurisprudence: 2000–2009. *International and Comparative Law Quarterly*, 60, 681-712; Talmon S. (2015). Determining Customary International Law: The ICJ's Methodology Between Induction, Deduction and Assertion. *European Journal of International Law*, 26, 417-433; Verdier P-H. & Voeten E. (2014). Precedent, Custom and Change in Customary International Law: An Explanatory Theory. *American Journal of International Law*, 108, 89-434; Lepard B.D. (Ed.). (2017). *Reexaming Customary International Law*. Cambridge: Cambridge University Press; Joyner D.H. (2019). Why I Stopped Believing in Customary International Law. *Asian Journal of International Law*, 9, 31-45; Hakimi M. (2020). Making Sense of Customary International Law. *Michigan Law Review*, 118, 1487-1537; Johnson K.A. (2021). The Nature and Context of Rules and the Identification of Customary International Law. *European Journal of International Law*, 32, 1167-1190; Merkouris P., Kammerhofer J. & Arajärvi N. (Eds.). (2022). *The Theory, Practice and Interpretation of Customary International Law*. Cambridge: Cambridge University Press.

(74) This is a reference to President Truman's executive order of 28 September 1945, by which the United States proclaimed that the resources on the continental shelf belonged to the United States. Several other States made similar proclamations, leading, in a short time, to the formation of a customary norm, which was later codified in Article 2 of the Geneva Convention on Continental Shelf (Geneva, 29 April 1958, entered into force on 10 June 1964, 499 UNTS 311). On the Truman proclamation see Scharf M.P. (2013). Customary International Law in Times of Fundamental Change. Recognizing Grotian Moments, Cambridge: Cambridge University Press, 107-122.

(75) See Dörr O. (2019). Declaration. *Max Planck Encyclopedia of Public International Law*, online version. Retrieved from https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/-9780199231690e1397?rskey=R1pmR1&result=1&prd=MPIL.

(76) See International Law Commission, Draft Conclusions on Identification of Customary International Law, with Commentaries, in Yearbook of the International Law Commission, 2018, vol. II, Part Two, Draft Conclusion 6 and the related commentary.

of a certain practice as law (*opinio juris*).[77]

As far as the requirement of practice is concerned, it is primarily the practice of States that should be taken into account.[78] In this respect, unilateral declarations concerning the commitment not to undertake direct-ascent ASAT weapons tests may undoubtedly qualify as State practice, given that they all come from organs of the States involved, who released them in the exercise of their official functions.[79] As already noted, these statements have been generally made by Ministries or permanent representatives of the States at the United Nations while performing their own duties.

Moreover, these statements should not be considered in isolation. States' inaction and protests *vis-à-vis* direct-ascent ASAT missiles tests could also be regarded as relevant State practice for the purpose of determining the existence of a customary international rule prohibiting them. As to the former element, it is widely recognized that inaction – such as, for instance, abstaining from the use of force – may account as relevant practice.[80] The role of inaction tends to be prominent in cases of prohibitive rules.[81] Accordingly, it is noteworthy that, as far as direct-ascent ASAT weapons tests are concerned, all countries that have committed not to undertake them have never carried them out, the only exception being represented by the United States. At the same time, however, one could likely assume that those States that publicly committed not to undertake them in the future will not depart from their pledge. In addition, so far, most of the States that have not made similar public statements have not experimented ASAT weapons tests either.

Whether this "negative practice" could be regarded as deliberate is nonetheless

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（77） Ibidem, Draft Conclusion 10.

（78） Ibidem, Draft Conclusion 4.

（79） Ibidem, Draft Conclusion 5.

（80） Ibidem, Commentary to Draft Conclusion 6.

（81） Ibidem, Commentary to Draft Conclusion 3.

complex to establish.[82] Whilst, on the one hand, the public commitment arguably reflects a deliberate choice, most States do not have the technical capabilities to carry out direct-ascent ASAT missiles tests. One notable example is New Zealand, whose Ministry of Foreign Affairs, when issuing its statement of commitment on behalf of the State not to conduct direct-ascent ASAT missiles tests, acknowledged that the country did not have the technology to undertake them.

Apart from inaction, protests – that is formal objections – against direct-ascent ASAT weapons tests may also constitute evidence of a general practice.[83] The tests that have been conducted in the last decades have, in fact, provoked harsh reactions on the part of other States. For instance, following the Chinese ASAT missile test in 2007, several countries – including Australia, Canada, Japan, South Korea, Taiwan, and the United States – formally protested and asked for consultations. The ASAT weapons test conducted by the Russian Federation on 15 November 2021 was also contested. The European Union, for instance, "strongly condemn[ed] the Russian Federation's conduct of [a] kinetic direct-ascent anti-satellite (ASAT) weapon test against its own satellite (…) [and] call[ed] on all States, including the Russian Federation, to refrain from further such tests".[84]

Finally, the conduct of States in connection with resolutions adopted by an international organization – including any act relating, inter alia, to their negotiation

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(82) See *supra* note 41.

(83) The role of protests with respect to the formation of customary international law was already recognized in MacGibbon I.C. (1953). Some Observation on the Part of Protest in International Law. *British Yearbook of International Law*, 30, 293-319.

(84) See Statement by the High Representative of the Union for Foreign Affairs and Security Policy on behalf of the EU on the Russian anti-satellite test on 15 November 2021, 19 November 2021, available at: https://www.consilium.europa.eu/en/press/press-releases/2021/11/19/statement-by-the-high-representative-of-the-union-for-foreign-affairs-and-security-policy-on-behalf-of-the-eu-on-the-russian-anti-satellite-test-on-15-november-2021/.

and adoption – may also count as relevant State practice.[85] On this point, the very decision by the United States to introduce a proposal for a resolution at the UN General Assembly calling for a moratorium on direct-ascent ASAT weapons tests, as well as the large majority by which the aforementioned resolution No. 77/41 was eventually adopted on 7 December 2022 (155 in favour; 9 against; 9 abstentions; 20 non-voting),[86] may be seen as practice contributing to – or being the expression of – an international customary rule prohibiting those tests.

In order to be relevant, State practice should however be sufficiently widespread, representative and consistent.[87] While these requirements do not call for universal participation, they imply that the States involved should include, at a minimum, those "that ha[ve] the opportunity or possibility to apply the alleged rule" and that "are particularly involved in the relevant activity or are most likely to be concerned with the alleged rule" (so-called specially affected States).[88] In other words, major weight should be attributed to the practice of those States that are particularly active in the specific area concerned. This means that, in establishing if a customary international rule concerning ASAT weapons tests has come to existence, attention should be paid first and foremost to the practice of those States that are active in outer space and, more specifically, that have the capability to experiment with those weapons. As stated earlier, however, to date, most manifestations of

(85) See again ILC, Draft Conclusions on Identification of Customary International Law, Draft Conclusion 6 and its Commentary.

(86) States that voted against the Resolution are: Belarus, Bolivia, Central African Republic, China, Cuba, Iran, Niger, the Russian Federation and the Syrian Arab Republic. India, the Lao People's Democratic Republic, Pakistan, Serbia, Sri Lanka, Sudan, Togo and Zimbabwe abstained.

(87) See again ILC, Draft Conclusions on Identification of Customary International Law, Draft Conclusion 8.

(88) Ibidem, Commentary to Draft Conclusion 8.

relevant practice are attributable to States that do not have the technological capabilities to undertake them. Conversely, States that possess this technical knowhow – such as the People's Republic of China, the Russian Federation and India – are not among those States participating in the practice.

At the same time, consistency need not be "complete".[(89)] As noted by the ICJ in its judgment in the case *Military and Paramilitary Activities in and against Nicaragua*, "(…) The Court does not consider that, for a rule to be established as customary, the corresponding practice must be in absolutely rigorous conformity with the rule (…)".[(90)] It follows that, in principle, breaches of the rule do not prevent it from qualifying as customary, and that any attempt to justify them or their acknowledgement by the State whose conduct is at stake can, to the opposite, be relevant for the purpose of determining customary law.[(91)] However, to date, those States that have carried out direct-ascent ASAT missiles tests have not justified their conduct by relying on exceptions, nor have they shown their support for a ban of their testing. It will be interesting to see whether this attitude will change following the proliferation of unilateral declarations by which States committed not to conduct these tests and the adoption of Resolution No. 77/41.

Finally, it should be remembered that just because a certain practice is followed for a relatively short time, one can still draw the conclusion that a norm of customary international law exists, as no "particular duration is required".[(92)] In this respect, it has been argued, for instance, that a "context of fundamental change" could

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(89) Ibidem.

(90) ICJ, Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America), judgment of 27 June 1986, ICJ Report 1986, para. 186.

(91) Ibidem.

(92) See again ILC, Draft Conclusions on Identification of Customary International Law, Commentary to Draft Conclusion 8.

act as a "accelerating agent" with respect to the formation of customary international rules and that the urgency to deal with developments of technology, such as in the case of outer space exploration and use, could represent such a fundamental change.(93) Along these lines, the increasing capabilities of States to experiment with direct-ascent ASAT weapons tests could be seen as a triggering factor in the process of formation of a customary rule banning those tests.

In any case, State practice *per se* is not sufficient to create a customary international rule: a second element – that is, that the practice is accompanied by a sense of legal obligation – should also be assessed in order to identify customary law. Such acceptance as law should be broad and representative, therefore attracting no or little objection.(94)

As already stated, in order to ascertain such acceptance, public statements made on behalf of the States admitting that a certain practice is allowed or prohibited under international law may be relevant.(95) Moreover, the legal convictions of the States may also become evident as a result of their conduct in connection with the adoption of resolutions by an international organization.(96)

In this respect, two considerations should be made as far as direct-ascent ASAT weapons tests are concerned. First, States' unilateral declarations – by which they committed not to undertake ASAT weapons tests – and UN General Assembly's Resolution No. 77/41 – which was voted for by most States – arguably reflect *lex ferenda* rather than *lex lata*. The States' declarations that have been reported *supra*

(93) See Scharf M.P. (2014). Accelerated Formation of Customary International Law. *ILSA Journal of International & Comparative Law*, 20, 305-341.

(94) Ibidem, Commentary to Draft Conclusion 9.

(95) See again ILC, Draft Conclusions on Identification of Customary International Law, Draft Conclusion 10 and its Commentary.

(96) Ibidem.

convey, in fact, a commitment for the future and are often expressions of the willingness to further the development of the law. Emblematic in this respect is the unilateral declaration made by the New Zealand's Ministry of Foreign Affairs, according to which the pledge not to undertake ASAT tests has to be considered an expression of the country's multilateral commitment towards the establishment of rules and norms.(97) In a similar manner, Canada's declaration expressed the hope that the ban of direct-ascent anti-satellite missile testing becomes a global norm.(98) Statements of this kind do not attest the belief that a legal obligation exists not to carry out direct-ascent ASAT weapons tests, but rather manifest what, according to these States, the law ought to be. Similarly, UN General Assembly's Resolution No. 77/41 calls upon all States to commit not to conduct these tests, thus refraining from concluding that such a prohibition is already provided under international law.

Second, even admitting that the voting record at the UN General Assembly, together with unilateral declarations, would amount to relevant evidence of acceptance as law, one could wonder whether this acceptance would be broad and representative enough. As already discussed, on the one hand, these manifestations concern most States in the world; on the other hand, they face the "dissent", expressed, for instance, by means of negatives votes or abstentions at the UN General Assembly, of those States – such as the People's Republic of China, India and the Russian Federation – that have the capability to undertake ASAT weapons tests.

In light of the above, it seems hard to establish that a customary rule banning direct-ascent ASAT missiles tests has already come into existence. This does not mean, however, that the unilateral declarations released in the past months and UN General Assembly's Resolution No. 77/41 are devoid of any meaning with respect to

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(97) See *supra* note 43.

(98) See *supra* note 41.

the development of customary international law. The unilateral declaration by the United States and its introduction of a proposed resolution on ASAT weapons testing could indeed arguably be qualified as a voluntary intervention in the process of formation of customary international law, which – together with the reactions to which it gave rise – has enriched the practice and manifestations of *opinio juris*. The foregoing could allow one to infer in the future that a customary norm has formed.(99) Moreover, as noted by the ILC, UN General Assembly's resolutions may also contribute to this process by determining the growth of a general practice accepted as law.(100) In this respect, following the adoption of Resolution No. 77/41, more States may commit not to conduct direct-ascent ASAT weapons tests as already occurred in the case of Austria and Italy.

5. Conclusions

Undoubtedly, the United States' declaration of 18 April 2022, the declarations of other States that joined it in the following months and the adoption by a large majority of UN General Assembly Resolution No. 77/41 on 7 December 2022 represent a major development in the regulation of destructive ASAT weapons testing.

By way of their unilateral declarations, several States have bound themselves not to conduct direct-ascent ASAT missile tests. Moreover, these declarations,

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（99） Treves T. (2005). *Diritto internazionale. Problemi fondamentali*. Milano: Giuffrè editore, 230-233. The declaration by which, in 1970, Canada's Prime Minister, Pierre Trudeau, accompanied the proclamation of an anti-pollution zone up to 100 nautical miles from Canadian coasts could be seen as a precedent in this respect. See ID, 231.

（100） See ILC, Draft Conclusions on Identification of Customary International Law, Commentary to Draft Conclusion 12.

together with “negative practice”, protests against past ASAT weapons tests and the voting records at the UN General Assembly, may count as evidence of a general practice accepted by law. While it may be too early to infer from this evidence that a customary norm banning direct-ascent ASAT weapons tests has already come into existence, it may be argued that such a rule is in its formative stage or *in statu nascendi*. In this respect, it remains to be seen whether, following these latest developments, those States that so far have not participated in the practice, and that rather have expressed dissent towards a commitment not to conduct direct-ascent ASAT weapons tests, will change their approach.

Moreover, there is nothing that could bar such a ban from eventually being incorporated in a legally binding instrument. As noted by the permanent representative of Japan to the Conference on Disarmament in his speech at the third session of the Open-Ended Working Group, “the process of formulating and accumulating such common recognition on norms, rules and principles could lead to the formulation of legally binding instruments in the future, as we have seen in the development of the Outer Space Treaty”.

Ultimately, whatever its legal grounds, such a prohibition, as formulated in the unilateral declarations made so far and in Resolution No. 77/41, covers only a kind of ASAT weapons tests – that is direct-ascent ones. However, as discussed earlier, direct-ascent are not the only possible tests. On 15 July 2020, for instance, the United States Space Command reported that Russia had conducted a non-destructive test of a space-based anti-satellite weapon by injecting an object into orbit.[101] It follows that, while such a rule would address one of the most pressing issues as far as the prevention of an armed race in outer space and the safety of space operations are

（101） See UN Space Command, Russia Conducts Space-Based Anti-Satellite Weapons Test, 23 July 2020, available at: https://www.spacecom.mil/Newsroom/News/Article-Display/Article/2285098/russia-conducts-space-based-anti-satellite-weapons-test/.

concerned, a more complete legal framework would in any event be needed in order to ensure those goals.

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