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Open-ended working group on reducing space threats through norms, rules and principles of responsible behaviours

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Consideration of issues contained in paragraph 5 of General Assembly resolution A/RES/76/231

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

The role of norms, rules and principles of responsible behaviour for space security

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I. Introduction

1. The Open-Ended Working Group (OEWG) established under United Nations General Assembly resolution 76/231 on “Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviour” is mandated to, inter alia, “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”.¹ In support of the work of the OEWG, this background paper has been produced to provide context on the role of norms, rules and principles of responsible behaviour for space security and their relationship with legally binding instruments.

II. Context on terminology

A. Norms, rules and principles

2. Norms, rules and principles in multilateral discussions are generally understood to be non-legally binding tools, in contrast to legally binding instruments such as treaties. The wording of resolution 76/231 seemingly supports this interpretation, as it presents norms, rules and principles as mechanisms that can contribute to the negotiation of legally binding instruments, thus indicating that they themselves are not legally binding.²

3. Neither Resolution 76/231, nor its predecessor, resolution 75/36, provide a definition of norms, rules and principles. It is therefore useful to highlight the different interpretations

¹ GA Res. 76/231, 76th Sess., on Reducing space threats through norms, rules and principles of responsible behaviours (24 December 2021), available online at <https://undocs.org/A/RES/76/231>

² See *ibid.*, ¶ 5 c).



that exist regarding the meaning of these terms and foster common understanding around these concepts.

4. Space security discussions in multilateral fora generally employ definitions originating in social science literature,³ which understand norms to be standards of appropriate behaviour for actors with a given identity.⁴ Principles are defined as beliefs of fact, causation, and rectitude, and rules are specific prescriptions or proscriptions for action.⁵

5. In the context of outer space, the difference between these three instruments according to social science literature would look as follows:

<i>Principle</i>	<i>Norm</i>	<i>Rule</i>
States bear international responsibility for national activities in outer space.	Registration of space objects. Notification of launches.	Specific details to be shared when registering space objects or when providing notification of launches.
States exercise jurisdiction and control over their space objects.		Exchanges of information on orbital parameters of space objects
Resolution 1962 (XVIII) ⁶	Resolution 1721 B (XVI) ⁸	Resolution 62/101 ¹³
Codified in art. VI OST ⁷	Resolution 1962 (XVIII) ⁹ Codified in art. VIII OST ¹⁰	2013 GGE Report on TCBMs ¹⁴

³ It should be noted that even in social sciences literature there is no universal understanding that norms, rules and principles are exclusively non-legally binding, even if this is how they are generally understood in the context of multilateral discussions.

⁴ Martha Finnemore & Kathryn Sikkink, *International Norm Dynamics and Political Change*, 52 *International Organization* 887, 887-917 (1998).

⁵ Stephen D. Krasner, *Structural Causes and Regime Consequences: Regimes as Intervening Variables*, 36 *International Organization* 185, 186 (1982).

⁶ “States bear international responsibility for national activities in outer space, whether carried out by governmental agencies or by non-governmental entities”. See GA Res. 1962 (XVIII), 18th Sess., on Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space ¶ 5 (13 December 1963) [hereinafter “Res. 1962 (XVIII)”], available online at https://www.unoosa.org/pdf/gares/ARES_18_1962E.pdf

⁷ “States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities”. See art. VI 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, 27 January 1967, 18 UST 2410; 610 UNTS 205; 6 ILM 386 [hereinafter “OST”].

⁸ “The General Assembly (...) Calls upon States launching objects into orbit or beyond to furnish information promptly to the Committee on the Peaceful Uses of Outer Space, through the Secretary-General, for the registration of launchings”. See GA Res. 1721 B (XVI), 16th Sess., on International co-operation in the peaceful uses of outer space ¶ 1 (20 December 1961), available online at https://www.unoosa.org/pdf/gares/ARES_16_1721E.pdf

⁹ Mentions the existence of State-established registries: “The State on whose registry an object is launched into outer space (...)” See Res. 1962 (XVIII) *op. cit. supra* note 6 at ¶ 7.

¹⁰ Mentions the existence of State-established registries: “A State Party to the Treaty on whose registry an object launched into outer space (...)” See OST *op. cit. supra* note 7 at art VIII.

¹³ GA Res. 62/101, 62nd Sess., on Recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects (17 December 2007), available online at <https://digitallibrary.un.org/record/614200>

¹⁴ Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities, U.N. GAOR, 68th Sess. U.N. Doc A/68/189 (29 July 2013) [hereinafter “2013 GGE Report”], available online at https://www.unoosa.org/oosa/oosadoc/data/documents/2013/a/a68189_0.html

<i>Principle</i>	<i>Norm</i>	<i>Rule</i>
	Specified in the Registration Convention of 1975 ¹¹	
	HCoC ¹²	

6. Principles are often more abstract yet constitute the fundamental basis of a regime. Norms, to a slightly lesser degree, also provide basic defining characteristics of that regime by elaborating upon principles. Rules of the same regime are consistent with its principles and norms, and serve to institutionalise them in a set of specific parameters, but do not define the core characteristics of the regime in the way principles and norms do. As such, a change of a rule constitutes a change within the regime, but a change to a principle or a norm constitute changes of the regime itself.¹⁵

7. Even though norms, rules and principles are different —although interconnected, as highlighted above—, the term “norms” is often used as a catch-all word to refer to all non-legally binding mechanisms, which can serve to generate confusion. This likely stems from the use of the same terminology in legal theory, which can create confusion in multilateral debates.¹⁶ However, for the sake of clarity, this working paper will be employing the terms as understood in social science literature, as this is the most commonly used in the field of international affairs. As such, any uses of the terms “norms”, “rules” and “principles” will refer to non-legally binding mechanisms as defined in para. 3. Moreover, the term “normative frameworks” may be used to refer to all these mechanisms in a collective manner.

B. Responsible behaviours

8. The focus of resolution 76/231’s mandate for the OEWG is to develop recommendations on possible norms, rules and principles of responsible behaviours. This focus differs from classic arms control agreements and initiatives, which have traditionally been more focused on establishing limitations on capabilities. An example of this is resolution 1884 (XVIII),¹⁷ which called upon States to refrain from placing, installing or

¹¹ See generally Convention on Registration of Objects Launched Into Outer Space, Nov. 12, 1974, 28 UST 695; TIAS 8480; 1023 UNTS 15.

¹² See arts. 4.a.ii, 4.a.iii., 5.c of the International Code of Conduct against Ballistic Missile Proliferation (2002), available online at <https://www.hcoc.at/what-is-hcoc/text-of-the-hcoc.html>

¹⁵ Krasner, *op. cit. supra* note 5.

¹⁶ In normative legal theory the concept of “legal norms” is used to refer to both rules and principles, which are considered different types of norms. However, under normative legal theory they hold a different meaning than the one highlighted above. Normative legal theory defines norms as rules of conduct dictated or promulgated by a legitimate power to regulate human behaviour by means of prescription, authorization or prohibition. It assumes that its non-compliance generates a coercive sanction. As such, for normative legal theory norms can be legally binding. See generally HANS KELSEN, *THE PURE THEORY OF LAW* (1934).

Moreover, normative legal theory generally classifies norms into two groups: principles on the one hand, and rules on the other. Principles are defined as optimisation requirements, that is, norms which require that something be realized “to the greatest extent possible, given the legal and factual possibilities.” Rules are of a more specific nature: they are either fulfilled or they are not, thus applying in an “all-or-nothing fashion”. However, principles can be fulfilled in a total or partial manner, without this affecting the validity of the principle itself. From this distinction it can be understood that fundamental norms, such as those enshrined in constitutions, are generally principles, and norms of a legal and regulatory nature are usually rules. See ROBERT ALEXY, *A THEORY OF CONSTITUTIONAL RIGHTS* 47 (2002); Ronald Dworkin, *The Model of Rules*, Faculty Scholarship Series – Yale Law School 14, 25(1967); GUSTAVO ZAGREBLESKY, *EL DERECHO DÚCTIL. LEY, DERECHOS, JUSTICIA* 109 (M. Gascón trans. 1995). See also generally RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* (1977).

¹⁷ GA Res. 1884 (XVIII), 18th Sess., on Question of General and Complete Disarmament (17 October 1963), available online at <https://digitallibrary.un.org/record/203960>

stationing in orbit around the Earth any objects carrying weapons of mass destruction. This eventually became article IV of the OST.

9. There can be advantages to restricting behaviours rather than capabilities. Some behaviours and State practices associated with uses of weapons systems can in some cases be easier to observe and monitor without the need for intrusive measures.¹⁸

10. A focus on behaviours does not necessarily mean ignoring issues related to capabilities. However, as some have expressed, capabilities can be neutral, and in outer space this is often the case. Threats can be the result of how an actor behaves when using certain capabilities. This is the concern that many States have with regard to dual-purpose objects, that is, objects designed to fulfil a benign objective (such as debris removal or on-orbit servicing), but which could potentially be repurposed to harm other space objects.¹⁹ Dual-purpose objects are increasingly prevalent in space, and their presence has blurred the conceptual boundaries of weapons, making control through restrictions on hardware difficult. In these cases, the definition of a weapon comes down to its use. As such, efforts to limit harmful activities or effects, or to prevent conflict escalation, thus depend on shared standards of behaviour.²⁰

11. Moreover, a focus on behaviours that are “responsible” and “irresponsible” serves to highlight that even though certain activities might be considered to be within the threshold of legality they do not necessarily foster space security and sustainability, but rather, they can escalate tensions and risk peace in outer space.

12. Throughout the history of space exploration, States have carried out many activities that, although generally considered to be legal, were viewed as irresponsible or damaging to the space environment or to the activities of other actors. An example of this is the testing and use of kinetic ASATs, which has garnered strong reactions from the international community. Many States have condemned such tests as irresponsible as they create intentional long-lasting debris that can severely endanger space operations, particularly in heavily populated orbits such as low-Earth orbit (LEO).²¹

13. A focus on responsible behaviours establishes a new threshold to take into consideration when conducting space activities and paves the way for further development of the principles established in the OST and other applicable space law to ensure space security.

III. The relationship between non-binding and legally binding mechanisms²²

14. Even though non-legally binding and legally binding mechanisms are often seen as competing approaches to addressing space security concerns, they are often closely

¹⁸ Jessica West & Almudena Azcárate Ortega, *Space Dossier 7—Norms for Outer Space: A Small Step or a Giant Leap for Policymaking?*, UNIDIR (March 2022), available online at https://www.unidir.org/publication/space_dossier_7_norms_outer_space

¹⁹ Dual-purpose objects are designed to fulfil a benign objective (such as debris removal or on-orbit servicing), but they could potentially be repurposed to harm other space objects. They should not be confused with dual-use objects, which are those that have a military and security function, as well as a civilian or commercial one. See Almudena Azcárate Ortega, *Statement to the Open-Ended Working Group on ‘Reducing space threats through norms, rules and principles of responsible behaviours’ - Topic 3: Current and future space-to-space threats by States to space systems* (14 September 2022), available online at <https://documents.unoda.org/wp-content/uploads/2022/09/Azcarate-Ortega-Almudena-OEWG-dual-use-presentation-FINAL.pdf>

²⁰ West & Azcárate Ortega, *op. cit. supra* note 18 at 25.

²¹ Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours, *Threats to the security of space activities and systems*, UNIDIR, (12 September 2022), UN Doc A/AC.294/2022/WP.16, available online at https://documents.unoda.org/wp-content/uploads/2022/08/20220817_A_AC294_2022_WP16_E_UNIDIR.pdf

²² See generally West & Azcárate Ortega, *op. cit. supra* note 18. This section includes multiple excerpts of this publication, which have been adapted and updated for this working paper.

intertwined and highly complementary. For example, the legal principles of due regard and non-contamination of the space environment enshrined in article IX of the OST have served to inform space debris mitigation practices such as UNCOPUOS' Space Debris Mitigation Guidelines.²³ Non-binding norms, rules and principles often inform and reflect how law is interpreted and applied in practice and can help to resolve conflicting legal rules.

15. The relationship between normative and legal frameworks is also true in the reverse: it is not uncommon that non-legally binding mechanisms eventually become binding laws through codification in legal agreements. For example, the OST was based on two UN resolutions: resolution 1884 (XVIII), mentioned above, which called on countries to not station WMDs in outer space, and resolution 1962 (XVIII), which established the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space.

16. Moreover, non-legally binding mechanisms can also become binding customary international law (CIL), which consists of rules of law derived from the consistent behaviour of States acting out of the belief that the law required them to act in a certain manner.²⁴ Further exemplifying the normative nature of CIL, State practice needs to be virtually uniform, but perfect uniformity is not required for such law to be established, so long as there is evidence of condemnation or denial of violations or breaches of such uniformity that points to the recognition of the rule.²⁵

17. In this sense, the OST references resolutions 1962 (XVIII) and 1884 (XVIII) in its preamble, thus highlighting the role that those non-legally binding instruments had played in establishing the foundation upon which the OST could be successfully negotiated. In a similar manner, resolutions on PAROS frequently include mentions to the OST. Recent examples of this are resolution 77/41 on "Destructive direct-ascent anti-satellite missile testing"²⁶ which mentions article IX, pursuant to which "States parties to the Treaty shall conduct all their activities in outer space with due regard for the corresponding interests of all other States parties"; and resolution 77/250 on "Further practical measures for the prevention of an arms race in outer space"²⁷ recalls the importance of article IV that prohibits the "place[ment] in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install[ation of] such weapons on celestial bodies, or station[ing of] such weapons in outer space in any other manner."

²³ UNOOSA, Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (2010), available online at https://www.unoosa.org/pdf/publications/st_space_49E.pdf

²⁴ Two elements of customary international law will always be required to see if CIL has been formed: (1) the general practice / widespread repetition of international acts by States over time (State practice); and (2) the requirement that the acts must occur out of a sense of legal obligation (*opinio juris*). See International Law Commission, Draft Conclusions on Identification of Customary International Law, with Commentaries, Y.B. Int'l L. Comm'n, Vol II, Pt. 2 152 (2018), available online at https://legal.un.org/ilc/texts/instruments/english/commentaries/1_13_2018.pdf

²⁵ "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. In order to deduce the existence of customary rules, the Court deems it sufficient that the conduct of States should, in general, be consistent with such rules, and that instances of State conduct inconsistent with a given rule should generally have been treated as breaches of that rule, not as indications of the recognition of a new rule." See *Military and Paramilitary Activities in and Against Nicaragua* (Nicaragua v. United States), 1986 I.C.J. 14, 181 ¶ 186 (27 June 1986), available online at <https://www.icj-cij.org/public/files/case-related/70/070-19860627-JUD-01-00-EN.pdf>. See also International Committee of the Red Cross, *Introduction - Customary IHL Database*, available online at <https://ihl-databases.icrc.org/en/customary-ihl/v1/in>

²⁶ GA Res. 77/41, 77th Sess., on Destructive direct-ascent anti-satellite missile testing (7 December 2022), available online at <https://undocs.org/A/RES/77/41>

²⁷ GA Res. 77/250, 77th Sess., on Further practical measures for the prevention of an arms race in outer space (30 December 2022), available online at <https://undocs.org/A/RES/77/250>

IV. How can norms, rules and principles of responsible behaviour contribute to a more secure space domain²⁸

18. Non-legally binding mechanisms usually reside in social values and expectations rather than law and due to this, they are often easier to develop and to adapt through political rather than legal means. For this reason, normative frameworks are viewed as a more flexible way of addressing issues and challenges that are marked by ongoing evolution or unanticipated developments, such as the rapidly changing technical capabilities and the diversification of actors that are emerging in outer space. At the international level, the processes of establishing normative frameworks may be more amenable to constructive diplomatic discussion in a tense political environment,²⁹ especially because norms, rules and principles are typically voluntary measures (although this characteristic is also what makes them more vulnerable to potentially being breached or bent by one of the parties in the negotiation). There are several ways in which norms, rules and principles can contribute to a more secure space domain, as highlighted below.

A. Build transparency and confidence

19. Non-legally binding mechanisms can enhance transparency and confidence-building, thus reducing tensions among different actors and creating a climate more suited for dialogue and the establishment of a common understanding. A core rationale for the 2013 GGE on TCBMs which identified national measures to enhance international trust and transparency such as publishing military doctrines and information exchange, was to create a political climate more conducive to conflict prevention and to foster stability.³⁰

20. Such efforts do not have to be coordinated or undertaken collectively. Unilateral measures can also have positive effects and can influence reciprocal behaviour by other States. The various national ASAT testing moratoria during the 1980s, as well as the recent unilateral commitments not to conduct direct ascent kinetic ASAT tests, which culminated in the adoption of resolution 77/41 serve as good examples related to outer space.

21. Resolution 77/42 on “No first placement of weapons in outer space”³¹ also “encourages all States, especially spacefaring nations, to consider the possibility of upholding, as appropriate, a political commitment not to be the first to place weapons in outer space.”

22. Importantly, the pursuit of voluntary frameworks and behavioural measures can provide an avenue towards stability and conflict prevention when other options are not available for either political or technical reasons.

B. Avoid misunderstandings

23. An important aspect of building confidence and transparency consists in working to avoid misperception, miscommunication, and misunderstanding, which can lead to escalation and even resort to the use of weapons.³² Measures that restrict or encourage specific actions and behaviours can help to prevent such unwanted outcomes by helping to clarify intentions and to establish procedures to cope with perceptions of threat.

²⁸ See generally West & Azcárate Ortega, *op. cit. supra* note 18. This section includes multiple excerpts of this publication, which have been adapted and updated for this working paper.

²⁹ Non-proliferation Export Controls: Origins, Challenges, and Proposals for Strengthening 64 (Daniel Joyner ed., 2006). See also Carmen Wunderlich, Harald Müller and Una Jakob, *WMD Compliance and Enforcement in a Changing Global Context*, UNIDIR (2021), available online at <https://www.unidir.org/WMDCEChangingGlobalContext>

³⁰ “In general terms, transparency and confidence-building measures are a means by which Governments can share information with the aim of creating mutual understanding and trust, reducing misperceptions and miscalculations and thereby helping both to prevent military confrontation and to foster regional and global stability” See 2013 GGE Report *op. cit. supra* note 14 at ¶ 20.

³¹ GA Res. 77/42, 77th Sess., on No First Placement of Weapons in Outer Space (7 December 2022), available online at <https://undocs.org/A/RES/77/42>

³² James D. Fearon, *Rationalist Explanations for War*, 49 Int’l Org. 379, 379-414 (1995).

24. In this sense, norms, rules and principles can be particularly helpful when it comes to dual-purpose technology: the establishment of clear guidelines can help to clarify peaceful or non-harmful intentions behind activities that could potentially be viewed as hostile, such as for example close approaches between satellites.

C. Create expectations of behaviour and serve as indicators of intent

25. Compliance with norms, rules and principles is in no small part driven by the social and political expectations that they set. These expectations serve to create an environment of predictability, which aids in reducing tensions among actors.

26. Observance of norms, rules and principles of behaviour can be useful indicators of intent. The observance of these mechanisms can help to reassure others of non-hostile intentions and reduce the drivers of arms racing. In contrast, if norms, rules and principles are observed during peacetime, it can be assumed that non-compliance in times of tension is deliberate.³³

D. Pave the way for the success of future mechanisms

27. Non-legally binding mechanisms can help to lay the groundwork for future measures, including those of a legally binding nature. Norms, rules and principles serve a key function of contributing to the creation of common understanding among States. Their perceived flexibility makes them useful trust builders that enable dialogue among different parties. As such, they are often a starting point for the development of regimes. The current legal framework applicable to space is an example of this, as is highlighted above, with the OST being the product of negotiations that initially started as the development and eventual adoption of General Assembly resolutions.

28. In a domain, such as space, where technology advances faster than law and policy, the flexibility of norms, rules and principles can aid in establishing a trusting and stable space environment. With sufficient common understanding, focus on widespread practice and participation, norms, rules and principles could become a pathway to more permanent and binding agreements for space security that stakeholders are willing to sign on to.

V. Challenges of norms, rules and principles of responsible behaviours³⁴

29. Non-binding mechanisms are not a panacea for constraining aggressive, hostile, or dangerous behaviour in outer space. Their success is not guaranteed, and they may crumble and collapse. Normative frameworks may be politically easier, but achieving robust norms, rules and principles of behaviour is not. It is hard to find the basic universal values that can bring together different cultures, interests, and groups. It is even harder to put those values into practice.

A. Need wide acceptance to be effective

30. Normative frameworks are fundamentally social. To be effective, they must be widely accepted and practised. This depends on shared values and mutual interests, but also trust and the 'like-mindedness' that are characteristic of a high level of social cohesion and community.³⁵ In the absence of this condition, there may instead be competition for normative influence, which some observers have labelled 'normfare'.³⁶ This is particularly

³³ Audrey M. Schaffer, *The Role of Space Norms in Protection and Defense*, 87 Joint Force Q. 88, (2017).

³⁴ See generally West & Azcárate Ortega, *op. cit. supra* note 18. This section includes multiple excerpts of this publication, which have been adapted and updated for this working paper.

³⁵ Christopher Ashley Ford, Assistant Sec'y, Bureau of Int'l Sec. and Nonproliferation, *Rules, Norms, and Community: Arms Control Discourses in a Changing World*, Remarks at the EU Conference on Nonproliferation (13 December 2019), transcript available online at <https://2017-2021.state.gov/rules-norms-and-community-arms-control-discourses-in-a-changing-world/index.html>

³⁶ Roxana Radu, Mattias C. Kettemann, Trisha Meyer, and Jamal Shahin, *Normfare: Norm Entrepreneurship in Internet Governance*, 45 Telecommunications Policy, 2 (2021).

dangerous in an environmentally sensitive and physically demanding shared domain such as outer space, where safety, sustainability, and security are dependent on collective action.

31. The creation and maintenance of non-legally binding mechanisms is a challenging and ongoing process. It is not enough to simply proclaim them. While this can be a useful step towards their creation, for them to truly be effective, normative frameworks must be applied and nurtured.³⁷ This is not always straightforward. Because they are rooted in values and dependent on practice, they are subject to reinterpretation. While this dynamism is beneficial in some ways, it means that norms, rules and principles must be constantly nurtured and reinforced.

B. Compliance may be less rigorous than desired

32. Implementation of normative frameworks can be challenging, as compliance with norms, rules and principles may be less rigorous in practice than it might seem in theory. Non-binding political agreements are generally more prone to non-compliance issues and subject to differing interpretations of obligations.³⁸ Voluntary commitments are easier to ignore, and violations may bring few—if any—repercussions. Political condemnation by the international community is a core tool for ensuring adherence to normative frameworks, but this requires leadership and collective action. In some cases, States may have a self-interest in remaining silent in the face of norm non-adherence. In other cases, States may fear political repercussions for speaking out, particularly against more powerful States. Finally, some States may find the stigma associated with going against previously agreed and established non-legally binding mechanisms to be worthwhile, acceptable, or even a useful way to challenge them.³⁹

C. Monitoring can be challenging

33. Monitoring adherence to non-legally binding mechanisms can also be difficult. Although some behaviours are easier to observe using national technical means or open-source intelligence (OSINT)—and without the intrusive inspection requirements of hardware restrictions—not all behaviours fit this description (cyber and electronic interference are examples). Even when behaviours can be observed, not all States have adequate access to national technical means to do so.⁴⁰ Without formal processes in place to collectively monitor and address concerns over compliance, adherence to normative frameworks is less likely to be a political priority.

³⁷ The development of normative frameworks for cyber peace and security speaks to this need to move beyond the articulation of political declarations or other non-legally binding mechanisms to their application and implementation, which is the priority of the Programme of Action. See Allison Pytlak, *Programming Action: Observations from Small Arms Control for Cyber Peace*, Women's Int'l League for Peace and Freedom (2021), available online at <https://reachingcriticalwill.org/images/documents/Publications/cyber-poa.pdf?fbclid=IwAR3T73GYmnycIggV9pqzbFL4Nlv7QOnaYB84uRzaTLn9FX3RTRhUEHaUSOk>.

³⁸ This conclusion is based on a review of a report by the Bureau of Arms Control, Verification and Compliance titled 2021 Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, conducted by Gilles Doucet and Andre Doucet as part of an ongoing project on lessons learned from past arms control experience, under the direction of Project Ploughshares and with funding from the Canadian Department of National Defence's Mobilizing Insights in National Defence (MINDS) programme. The original report is available online at <https://www.state.gov/2021-adherence-to-and-compliance-with-arms-control-nonproliferation-and-disarmament-agreements-and-commitments/>.

³⁹ Rebecca Alder-Nissen, *Stigma Management in International Relations: Transgressive Identities, Norms and Order in International Society*, 68 Int'l Org. 143, 143-176 (2014).

⁴⁰ Chair's Summary of discussions under agenda item 6 (b), A/AC.294/2022/4, ¶ 6 (5 October 2022), available at https://documents.unoda.org/wp-content/uploads/2022/10/A_AC294_2022_4_Chairs-Summ-2nd-Session-2022-au.pdf. See also Permanent Mission of the Islamic Republic of Iran, *Views and Analysis of the Islamic Republic of Iran on the Resolution 'Reducing Space Threats through Norms, Rules and Principles of Responsible Behavior' proposed by United Kingdom of Great Britain and Northern Ireland in the First Committee of the UN (A/C.1/75/L.45/Rev.1)* (11 June 2020), available online at <https://front.un-arm.org/wp-content/uploads/2021/04/attachment-of-Iran-views-on-res-75-36.pdf>.

D. Danger of the emergence of negative norms

34. Not all norms, rules and principles produce positive effects. Sometimes they can make ‘good enough’ behaviour acceptable, or even legitimize harmful activities. This concern has been raised in relation to ASAT testing and poor compliance with debris mitigation guidelines.⁴¹ In the case of space security and PAROS, it is possible that a narrow focus on the safety and sustainability of military space activities could help to legitimize or to perpetuate certain types of weapons tests and other behaviours that drive collective insecurity in outer space.⁴² When it comes to the objectives of arms control, norms, rules and principles are certainly valuable tools to regulate and restrict dangerous behaviours and even potential uses of weapons. But an unfettered build-up of weapons capabilities leaves the international community vulnerable to catastrophe.

35. Overall, a general theme of these challenges and limitations is that normative frameworks —while necessary— are not sufficient, at least on their own. Successful socialisation and institutionalisation of norms, rules and principles requires additional measures and processes to facilitate and monitor compliance.

VI. Key requirements for an effective regime for space security⁴³

36. The agreement or proclamation of non-legally binding mechanisms or even of legally binding agreements is by itself not enough to guarantee the effectiveness of such measures. Rather, the efficacy of any regime —whether legal or normative— depends on balancing several factors.⁴⁴

37. Compliance: this relates to the implementation of and acquiescence with an instrument. By some considerations compliance is more likely to occur with legally binding agreements. However, the duty to comply with legal agreements can also be a double-edged sword. States might be less willing to bind themselves to a treaty depending on its content, or even the number of signatories it has.

38. The greater flexibility of normative frameworks is viewed as a benefit in this context, making it easier to garner agreement. However, even though non-legally binding mechanisms introduce social and political obligations rather than legal ones, implementation remains critical. To facilitate compliance of normative frameworks it is essential to:

- Build on shared or core values and existing mechanisms, including the OST and other space treaties.
- Identify tools and mechanisms to implement and observe both existing and new norms, rules and principles.
- Consider incentives for compliance with the normative framework for outer space.
- Include processes and recourse for possible normative violations.

39. It should be noted that in the cases where a norm, rule or principle has become customary international law, its breach constitutes a violation of hard law.

40. Participation: this refers to the number of States that agree on a specific measure and choose to comply with it. The more widely accepted, socialised and institutionalised a measure is, the more effective it is. This is particularly important in the case of non-binding

⁴¹ Jessica West & Giles Doucet, *From Safety to Security: Mapping the Normative Landscape in Outer Space*, Project Ploughshares (March 2021) available online at <https://www.ploughshares.ca/reports/from-safety-to-security-mapping-the-normative-landscape-in-outer-space>

⁴² Jessica West, *A Weapons Test is the Wrong Way to Advance Norms on Responsible Behaviour in Space*, Breaking Defense (26 August 2021), available online at <https://breakingdefense.com/2021/08/a-weapons-test-is-the-wrong-way-to-advance-norms-on-responsible-behavior-in-space/>

⁴³ See generally West & Azcárate Ortega, *op. cit. supra* note 18. This section includes multiple excerpts of this publication, which have been adapted and updated for this working paper.

⁴⁴ See generally SCOTT BARRETT ENVIRONMENT AND STATECRAFT: THE STRATEGY OF ENVIRONMENTAL TREATY-MAKING (2005).

mechanisms, as they lack the greater ‘compliance pull’ that legally binding instruments have.⁴⁵

41. While the establishment of norms, rules and principles does not necessarily require consensus, to encourage widespread participation and implementation, priority should be given to:

- An inclusive approach to their development that nurtures and expands broad community agreement, including non-governmental entities, such as the commercial industry, civil society and academia.
- Obligations and benefits that are shared by all parties.

42. Who participates and agrees to normative frameworks is also important. To ensure implementation, it is necessary for States to engage those actors that possess the technology and capabilities for which norms, rules and principles are sought.

43. Thoroughness and ambition: this refers to the level of detail and specificity of an agreement. More generic instruments tend to garner wider support, as general principles are perceived as easier to agree on than more specific issues. The OST, for example, is a treaty of principles that does not delve deeply into each matter it regulates. Agreements on very specific issues, such as specific rules on close approaches, for example, require greater degrees of common understanding on the topic among the different stakeholders in order to succeed. In this sense, rules are the more thorough of the “norms, rules and principles” trifecta, and require a solid base of principles and norms that they can develop.

44. General commitments create room for interpretive differences and loopholes, such as the meaning of ‘long-lived’ debris, or of “due regard”. Vague principles might also deter agreement by States. For example, the lack of clarity surrounding the definition and identification of ‘space weapon’ is a long-standing obstacle to agreement on arms control measures in space. In a similar manner, a non-legally binding mechanism that is too vague will not easily evolve into a binding agreement, either through codification or by becoming customary international law.

45. To this end, it is important to emphasize the identification of positive behaviours that make operators in outer space feel safe, secure, and confident in the intentions of others.

VII. Conclusion

46. Norms, rules and principles can be a useful tool to reach and maintain the objectives of PAROS. However, they should not be considered a panacea to address space security concerns. As this background paper highlights, norms, rules and principles also have limitations. No one mechanism or initiative will be able to singlehandedly achieve space security but rather a web of mutually reinforcing tools is required.

47. Space activities are constantly evolving, and instruments to address space security concerns should progress in parallel. Norms, rules and principles provide a more flexible means of dealing with an evolving problem.

48. States should also keep in mind legally and non-legally binding instruments can complement and reinforce one another. In this sense, to establish new norms, rules and principles, States should build on existing mechanisms, such as the OST, as this will be useful in reinforcing currently applicable frameworks but also aid in creating common understanding among the members of the international community on issues relating to space security.

49. For norms, rules and principles to be effective, they need widespread buy-in not just by States but also other entities active in the space domain, such as industry, civil society and

⁴⁵ Daniel Bodansky, *Legally Binding versus Non-Legally Binding Instruments* 161, in *TOWARDS A WORKABLE AND EFFECTIVE CLIMATE REGIME* (Scott Barrett Carlo Carraro & Jaime de Melo, eds., 2015).

academia. The wider and deeper these tools can be assimilated, the stronger the tool will become.

50. Ultimately, the effectiveness of norms, rules and principles depends on the willingness of space actors, particularly States, to adhere to them and for all entities who benefit from outer space assets and technology, but once again, particularly States, to condemn non-compliance if it should occur.
