

Space Diplomacy: Shedding Light on the Current Initiatives to Prevent Conflict in Outer Space

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In the early 21st century, several events raised concerns about the potential weaponisation of outer space. As the U.S. moved its rhetoric in this direction, both China and the U.S. conducted kinetic ASAT tests. Trying to de-escalate the increasingly tense situation, the EU as well as Russia and China proposed diplomatic initiatives in order to prevent conflict in outer space. Today, neither the “Code of Conduct for Outer Space Activities” nor the “Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects” has been adopted. But will they ever be? This Perspective looks at the most recent developments behind both initiatives in order to answer the question whether the international community is going to adopt either of them in the near future. It argues that, due to seemingly irresolvable disagreements between the major space powers, neither agreement is likely to be accepted. Finally, this Perspective offers some thoughts on alternative diplomatic efforts so as to ensure space safety, security and sustainability.

1. Introduction

Outer space is militarised, but not weaponised – this statement is often used to describe the space environment. Space applications such as communication or remote sensing are used for military purposes, but there has not yet been an actual placement of weapons in outer space. In the early 21st century, however, that paradigm seems to be changing.

In 2001, a commission established by the U.S. Congress to assess U.S. national security space management and organisation, warned against a potential “Space Pearl Harbour” and urged the U.S. to develop superior space capabilities in order to “deter and defend against hostile acts in and from space”.¹ Building on this, the U.S. published a National Space Policy in 2006 which identified space capabilities as a vital part of U.S. national

interests and explicitly stated the intention to “deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests”.²

Just three months after the publication, China conducted a successful kinetic Anti-SATellite (ASAT) test, destroying one of its inactive weather satellites in Low-Earth Orbit (LEO) and generating a large amount of orbital debris. Chinese officials did not notify anyone prior to the test, which resulted in widespread criticism from the international community.³ The U.S. responded in early 2008 by conducting a kinetic ASAT manoeuvre themselves.⁴

In this tense context, the UN tried to de-escalate and called upon all states to submit concrete proposals for transparency and confidence-building measures (TCBMs) in order to avert an

¹ Commission to Assess United States National Security Space Management and Organization. “Report of the Commission to Assess United States National Security Space Management and Organization. Executive Summary.” 11 Jan. 2001. pp. 8-10.

² U.S. White House. “U.S. National Space Policy.” 31 Aug. 2006. pp. 1-2.

³ Kan, Shirley. “China’s Anti-Satellite Weapon Test.” Congressional Research Service. 23 Apr. 2007. pp. 1-2.

⁴ McIntyre, Jamie; Malveaux, Suzanne; O’Brien, Miles. “Navy missile hits dying spy satellite, says Pentagon.” CNN. 21 Feb. 2008. Web. <http://edition.cnn.com/2008/TECH/space/02/20/satellite.shootdown/index.html> [Retrieved 26 Dec. 2015]

arms race in outer space.⁵ In response to this call, the EU published a draft “Code of Conduct for outer space activities” in 2008⁶ (hereinafter referred to as “Code”), while in the same year, Russia and China formally introduced a 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)⁷ at the UN Conference on Disarmament (CD) in Geneva.

Eight years later, neither initiative has yet been formally adopted by the international community. Both drafts have undergone numerous discussions and revisions, with the most recent version of the Code being published in May 2015 and of the PPWT being published in June 2014.

This raises the question as to whether the international community is close to adopting an agreement to prevent conflict in outer space. The following Perspective aims to answer this question by analysing the current status of both initiatives. After a short introduction to the main ideas behind each draft, the most recent developments as well as the major criticisms will be discussed. In the end, an evaluation of their future path as well as possible alternatives will be provided.

2. The Draft PPWT

2.1. Overview of the PPWT

The PPWT is proposed to be a legally binding international agreement to ban the placement of weapons in outer space. It specifies the actions by its signatories, the means of its implementation, the procedures for dispute settlement and the compatibility with other international agreements such as the 1967 Outer Space Treaty or the UN Charter. Its main sponsors are the Russian Federation and the People’s Republic of China.

2.2 Development and Criticism

When initially introduced in 2008, the PPWT was met with mostly negative reactions. The harshest criticism came from the U.S. In a statement at the CD, it lamented several major shortfalls, such as the vague language regarding several definitions (e.g. “hostile” or “use of force”), the lack of prohibitions on research, development, production

and storage of space-based weapons or the lack of a legally-binding regime to verify compliance with the treaty’s provisions.⁸

Reacting to these concerns, Russia and China introduced a new version of the PPWT at the CD in June 2014. While its language is now more specific and less ambiguous, little change was made to the substantial provisions.⁹ The main concerns raised by the U.S. were not addressed.

Commenting on the updated version, the U.S. pointed out three fundamental flaws of the revised PPWT.¹⁰ The first is the lack of a verification regime. Similar to the 2008 version, the updated PPWT states that such a regime could be the subject of future negotiations, but is not featured in the treaty itself. The U.S. said it would not support such an approach.

It further pointed out that the treaty only banned the deployment of weapons in outer space, but not their research, development, production and storage. This could enable states to prepare “break-out capabilities”, allowing them to develop such weapons and then pull out of the treaty once they are ready for deployment. China and Russia argued that since the treaty bans their deployment, no country would invest the resources to develop and produce space weapons¹¹, but it is unlikely that this will convince the U.S. and make it change its position.

Finally, the U.S. insisted that it is not weapons placed in orbit that pose the greatest threat to space-based assets, but rather terrestrial ASAT systems which, contrary to space weapons, have already been developed, produced and tested. Therefore, the PPWT would focus on a minor threat and completely disregard the major one. The argument brought forth by Russia and China was that by subscribing to the PPWT, which also prohibits the threat and use of force against space objects, there would be no incentive for countries to develop and test ASAT weapons. But apparently, this argument did not convince the U.S.

2.3. The Road ahead for the PPWT

Unless its sponsors are willing to make significant changes to the current draft, it is highly unlikely for

⁵ See UN GA Resolutions A/RES/61/75 and A/RES/62/43. Available online at <http://www.un.org/en/documents/index.html>

⁶ Council of the European Union. “Council conclusions and draft Code of Conduct for outer space activities.” 17 Dec. 2008. Web. <http://register.consilium.europa.eu/doc/srv?!=EN&f=ST%2017175%202008%20INIT> [Retrieved 26 Dec. 2015]

⁷ Letter by Russian Ambassador Valery Loshchinin and Chinese Ambassador Wang Qun to the Conference on Disarmament on 29 Feb. 2008 (Document CD/1839). All CD Documents available online at: <http://www.unog.ch/cd>

⁸ Statement by U.S. Ambassador Christina B. Rocca at the Conference on Disarmament on 26 Aug. 2008 (Document CD/1847).

⁹ For a detailed discussion of the changes between the 2008 version and the 2014 version, see Tronchetti, Fabio; Hao, Liu. “The 2014 updated Draft PPWT: Hitting the spot or missing the mark?”, In: Space Policy, Vol. 33 Part 1, August 2015, p. 38-49.

¹⁰ Note verbale by the U.S. to the Conference on Disarmament on 03 Sep. 2014 (Document CD/1998).

¹¹ Letter by Chinese representative Fu Cong and Russian representative Rinat Alyautdinov to the Conference on Disarmament on 14 Sep. 2015 (Document CD/2042).

the PPWT to make any progress in the near future. At this point, only China and Russia support the treaty, while the U.S. strongly opposes it. Other countries' positions are less certain: The G-21¹² calls the 2014 version of the PPWT a "good basis for discussions toward adopting an international binding instrument"¹³, while the EU reacted less enthusiastic, stating that the draft was not sufficiently "comprehensive, precise and verifiable".¹⁴

Regardless of the extent of support for the PPWT, the CD's rules of procedure demand consensus on agreements to be adopted. This makes it nearly impossible for the treaty to progress due to the strong objections by the U.S. With this in mind, the behaviour of China and Russia seems confusing. If they really wanted to establish an agreement that enhances the security of the outer space environment, they could have chosen a different forum to advance the treaty or should have addressed the major concerns raised by the U.S. in the updated version of the PPWT.

3. The Draft Code of Conduct for Outer Space Activities

3.1. Overview of the Code

The Code is a legally non-binding international agreement with voluntary participation and without sanctioning mechanisms. Its main purpose is "to enhance the safety, security, and sustainability of all outer space activities".¹⁵ The Code establishes several TCBMs as well as "rules of the road" for the space environment. Its key provisions aim to reduce the threat of space debris and to establish cooperation mechanisms (e.g. notification of and information on outer space activities) in order to reduce uncertainty and misunderstandings between states.

While not directly addressing military issues, the Code nonetheless tries to "prevent outer space from becoming an arena of conflict".¹⁶ Diplomats have also pointed out that by discouraging the destruction of space objects in order to avoid debris generation, the Code acts as a "de-facto ban on kinetic ASAT tests".¹⁷

¹² A group of 33 states within the CD who commonly deliver joint positions.

¹³ Working paper by Indonesia on behalf of the G-21 member states to the Conference on Disarmament on 13 Aug. 2015 (Document CD/2031).

¹⁴ Statement by Latvian representative Mr. Lusinki on behalf of the EU at the plenary session of the Conference on Disarmament on 09 Mar. 2015.

¹⁵ See Article 1.1 of the latest draft, released in May 2015. Available online at: http://eu-un.europa.eu/documents/en/draft_Space_Code_of_Conduct.pdf

¹⁶ Ibid. Article 2.

¹⁷ Statement by Germany on July 27 at the Multilateral Negotiations on an International Code of Conduct for Outer

3.2. Chronology of the Code's Development

After the publication of the first draft in 2008, the Code underwent several revisions and was formally introduced to the international community in June 2012 at a meeting in Vienna. However, it was not pursued within the framework of the UN, but rather through an ad-hoc diplomatic process led by the European External Action Service (EEAS).

The EEAS held three Open-Ended Consultations (OECs), in Kiev and Bangkok in 2013 and in Luxembourg in 2014¹⁸, where all states were invited to participate. The purpose of the OECs was to receive feedback from the international community and then revise the draft to best reflect the comments made by the participants.

New versions were published in March 2014 and May 2015 and the EU finally felt comfortable enough to move from consultations to negotiations. A meeting was held at the UN headquarters in New York (NY), hosted by the EEAS with support from the UN Office for Disarmament Affairs, from July 27-31 2015.¹⁹ But despite the EU's optimism, conflict and differing views quickly erupted at the beginning of the meeting and its status was reversed from negotiation to consultation. Rather than moving closer towards adoption, NY brought the Code to a halt.

3.3. Main Conflicts at the Multilateral Negotiations in NY

The points of discussion at the meeting in NY were both of procedural and substantive nature, and the conflicting views were mainly divided between the industrial countries (EU, U.S., Canada, Japan and Australia) on the one side and the emerging and developing countries and Russia and China, on the other side.

3.3.1. Process of Advancing the Code

At the procedural level, a long-held criticism toward the Code was the manner in which it was advanced. Several countries complained that the

Space Activities, held by the EEAS from July 27-31 2015 at the UN Headquarters in New York. All statements from the meeting can be found at: <https://papersmart.unmeetings.org/secretariat/codeofconductforouterspace/statements/>

¹⁸ European Union. "Code of Conduct for Outer Space Activities." Web. http://eeas.europa.eu/non-proliferation-and-disarmament/outer-space-activities/index_en.htm [Retrieved 28 Dec. 2015]

¹⁹ European Union. "Event: EU hosts Multilateral Negotiations on International Code of Conduct for Outer Space Activities, 27-31 July." 29 Jul. 2015. Web. http://eu-un.europa.eu/articles/en/article_16615_en.htm [Retrieved 28 Dec. 2015]

EU was merely asking them for their opinion, but not letting them participate in the process. In a joint statement issued at the opening day of the meeting, the BRICS²⁰ stated that the Code should be negotiated “in an inclusive and transparent manner on the basis of consensus”²¹ and required further steps to be mandated by the UN.

Afraid that control might slip out of their hands and that negotiations within the UN might delay the adoption of the Code for an unforeseeable amount of time, the EU compared the Code to the nuclear deal with Iran, claiming that international agreements outside the UN framework could still enjoy the support of the international community and yield positive results.²²

It was, however, a fruitless effort. The large number of participants sided with the BRICS, and in his summary of the meeting at the end of the week, the Chair, Sergio Marchisio, concluded that “the most supported way forward would be the pursuit of negotiations within the framework of the United Nations through a mandate of the General Assembly”.²³ This means that if the EU wants the Code to proceed, it would have to give up control over it.

3.3.2. “Hard” vs. “Soft” Law

But discussions also focused on the content of the Code. One of the main concerns was that as a legally non-binding instrument, it would not be an effective tool to prevent conflict in outer space. Some countries feared that it might be regarded as a substitute for stronger mechanisms and undermine the process of establishing a legally binding agreement²⁴, while supporters of the Code tried to reaffirm that it would only act as a first, complementary step towards stronger agreements²⁵ or outright declared that legally binding agreements were an “illusion” and that the Code would offer the most pragmatic step forward instead.²⁶

3.3.3. The Right of Self-Defence

²⁰ An association between Brazil, Russia, India, China and South Africa.

²¹ Joint statement by the BRICS at the NY meeting on 27 Jul. 2015.

²² Statement by the European Union at the NY meeting on 27 Jul. 2015.

²³ See the meeting’s summary by Chair Sergio Marchisio. Available online at: <http://www.mofa.go.jp/mofai/files/000098436.pdf> [Retrieved 29 Dec. 2015]

²⁴ Statements by Brazil and India at the NY meeting on 27 Jul. 2015.

²⁵ Statements by Australia, Canada, Portugal, Sweden, the UK and the U.S. at the NY meeting on 27 Jul. 2015.

²⁶ Statement by Germany at the NY meeting on 27 Jul. 2015.

²⁷ U.S. White House. “U.S. National Space Policy.” 31 Aug. 2006. p. 2.

Another major point of disagreement was the reference to a state’s inherent right of self-defence, as enshrined in Article 51 of the UN Charter. While such a reference was absent (or downplayed) in earlier drafts of the Code, it was featured prominently in the 2012 version in order to convince the U.S. to endorse it. While the Bush administration openly opposed any type of international agreement related to arms control in outer space²⁷, the Obama administration is more open toward cooperation. However, it still makes it clear that the U.S. will not “enter into a code of conduct, or other agreement, that in any way constrains [its] national security-related activities in space”.²⁸

But many countries, mainly from Latin America, have strongly objected the inclusion of Article 51, fearing that this might be used as an excuse to weaponise space and therefore render the Code useless.²⁹ In NY, it was especially Brazil that criticised the reference to self-defence and whose delegate, in a seemingly emotional manner, stated that it “hangs like a sword over a person’s head” and that it was like “threatening a new neighbour to punch him or her in the face”.³⁰

3.3.4. Non-Discriminatory Access to Space

Finally, doubts remained as to whether the Code, through provisions such as space debris mitigation, formulation of national space policies, establishment of central points of contacts, etc., would limit the access to space for developing countries who might not possess the capacities necessary to implement all the required provisions. Supporters of the Code tried to ease these fears³¹, but others remained sceptical.

The Non-Aligned Movement³² together with Brazil, China and Russia were worried that it would “set up thresholds that would limit the equal right of exploration and use of outer space by developing countries”.³³ India further noted that “in actual practice a level playing field is missing” and that

²⁸ U.S. Senate. “Nomination of Frank Rose and official correspondence from the Department of State on proposed European Union Code of Conduct for Outer Space Activities.” Congressional Record, Vol. 160, No. 156, S6935, 02 Jan. 2015. p2.

²⁹ Rajagopalan, Rajeswari Pillai. “Space Code Debate and the Right to Self Defence under Article Fifty Five.” Space Daily. 31 Jul. 2013. Web. http://www.spacedaily.com/reports/Space_Code_Debate_and_the_Right_to_Self_Defence_under_Article_Five_999.html [Retrieved 30 Dec. 2015]

³⁰ Statement by Brazil at the NY meeting on 30 Jul. 2015.

³¹ Statement by Australia at the NY meeting on 27 Jul. 2015.

³² A group of states which has not aligned with any of the two power blocs during the Cold War.

³³ Statement by Iran on behalf of the Non-Aligned Movement, Brazil, China and Russia at the NY meeting on 30 Jul. 2015.

developed countries would have to assist developing countries by setting up mechanisms to share technology and knowledge.³⁴

3.4. The Road Ahead for the Code

The multilateral negotiations in NY did not prove to be successful for the EU. No meaningful progress was made on substantive issues, and observers described that after the opening statements, all delegations were just repeating well-known points and positions for the remainder of the week.³⁵ Instead of opening the Code for signature by the international community, the meeting did not even lead to the beginning of a negotiation process.

The EU expressed its disappointment at numerous occasions since then³⁶ and diplomats from the EEAS have hinted at the EU potentially halting its efforts to promote the Code, stating that it was currently contemplating to forego the multilateral track and rather focus on bilateral approaches to enhance space safety, security and sustainability.³⁷

An interesting clue regarding the future of the Code can also be taken from the position of the U.S. After expressing its support for negotiations on a multilateral non-binding Code in 2012³⁸, the U.S. has been a strong advocate for it, vigorously urging doubting countries at the meeting in NY to “seize this opportunity to make progress in preserving the outer space environment for all nations”.³⁹ But since then, the U.S. has been less optimistic about the Code. While not officially withdrawing its support, the State Department has since dropped all references to the Code from its official statements, or at least given it only a minor mention⁴⁰, which stands in stark contrast to the statements issued before NY.⁴¹

It remains to be seen whether there is sufficient political will to revive the Code within the UN framework. Given the unresolved disagreements

on its substantive provisions, it would certainly mean a conflictual process that could stretch over many years. Since the EU has tried to advance the Code without any success for almost a decade, a new attempt would require a significant amount of confidence and political capital.

4. The Future of International Agreements on Space Safety, Security and Sustainability

Any international agreement, regardless of being legally-binding or not, would have to be accepted by all major space nations in order to be effective. At the moment, however, this is not the case.

The United States, being rather reserved toward international treaties in general, has shown the least interest in signing agreements that would regulate space activities. While it operates the largest number of satellites and would therefore benefit the most from a safe and sustainable space environment, it has continuously stated not to agree to any instrument that restricts its freedom of action in space. The Code seemed like the most acceptable measure, but that door appears to have closed. It is highly unlikely that the US will ever embrace the PPWT due to its binding nature.

Russia and China, on the other hand, seem to insist on legally binding measures. China calls them the “fundamental way to safeguard space security”⁴² and its tenacity in promoting the PPWT at the CD, despite facing major opposition, is a strong testament to its position. Regarding the Code, or voluntary measures in general, both countries have strong reservations, fearing that it might undermine their efforts of arriving at a stronger agreement.⁴³

Europe should be open to both legally non-binding and non-binding measures as it is the least likely major space power to install weapons outside of Earth. However, being the driving force behind the Code, it is in a similar position as Russia and China,

³⁴ Statement by India at the NY meeting on 30 Jul. 2015.

³⁵ Sgobba, Tommaso. “IAASS Statement on International Code of Conduct for Outer Space Operations.” Space Safety Magazine. 05 Aug. 2015. Web. <http://www.spacesafetymagazine.com/news/iaass-statement-on-the-international-code-of-conduct-for-outer-space-operations/> [Retrieved 30 Dec. 2015]

³⁶ Statements by the EU in the UN GA 4th Committee on 19 Oct. 2015, in the 1st and 4th Committee on 22 Oct. 2015, and in the 1st Committee on 23 Oct. and 03 Nov. 2015. All available online at: http://eu-un.europa.eu/articles/articleslist_s10_y2015_en.htm [Retrieved 30 Dec. 2015]

³⁷ Center for Strategic & International Studies. “Enhancing EU-U.S. Cooperation in Space: Panel 2.” YouTube. 10 Dec. 2015. Web. 00:18:23 – 00:19:48. <https://youtu.be/NyTtlfM1ej8?t=18m23s> [Retrieved 30 Dec. 2015]

³⁸ U.S. Department of State. “An International Code of Conduct for Outer Space Activities: Strengthening Long-Term Sustainability, Stability, Safety, and Security in

Space.” 17 Jan. 2012. Web. <http://www.state.gov/r/pa/pl/2012/180998.htm> [Retrieved 31 Dec. 2015]

³⁹ Statement by the U.S. at the NY meeting on 27 Jul. 2015.

⁴⁰ See the statements by the U.S. State Department’s Bureau of Arms Control, Verification and Compliance’s Assistant Secretary Frank A. Rose on 16 Sep., 22 Oct. and 30 Nov. 2015 as well as Deputy Assistant Secretary Mallory Stewart on 09 Dec, 2015. All available online at: <http://www.state.gov/t/avc/rls/c29777.htm>

⁴¹ Good examples would be the remarks by Rose on 05 Mar., 16 Apr. and 15 Jul. 2015 as well as by Stewart on 12 May 2015.

⁴² Statement by the Chinese Vice Foreign Minister Li Baodong on 30 Nov. 2015. Available online at: http://www.fmprc.gov.cn/mfa_eng/wjdt_665385/zjih_665391/t1320528.shtml [Retrieved 05 Jan. 2016]

⁴³ Statement by the BRICS at the NY meeting on 30 Jul. 2015.

in which embracing the other's initiative could be interpreted as giving up its own. The EU calls the Code a "product [it is] proud of"⁴⁴, showing how highly it thinks of the proposal.

As a result, it is very improbable that any international agreement to prevent conflict in outer space will be adopted in the near future. The US, Russia and China are divided over the legal form of the instruments, while the EU, Russia and China all struggle to give up on their proposals after investing so much political capital. These issues need to be resolved before any diplomatic initiative can progress. Only time can tell whether this will happen.

5. Conclusion

In 2008, two diplomatic initiatives were launched to prevent the sanctuary of space from turning into a battlefield. Seven years later, both are in dire health.

Pessimists might say that the international community has wasted time, money and effort to produce two worthless pieces of paper. Puns like "Failure to Launch?"⁴⁵ or "Post-mortem thoughts"⁴⁶ are used to describe the future prospects of the Code, "stalemate" and "deadlock"⁴⁷ to describe those of the CD.

Optimists might point out that the international community has engaged in constructive talks which have revealed the positions and concerns of the involved parties. This could already be seen as a success, if only to show that at the moment, top-down approaches to space security might lack the necessary consensus. Actors can now focus their energy toward alternative approaches.

And these alternatives exist: At the unilateral level, several states have declared not to be the first to place weapons in outer space.⁴⁸ On the bilateral level, major space powers retain and expand cooperation on outer space activities.⁴⁹ And on the multilateral level, the UN General Assembly last year held a joint ad hoc meeting of the First and Fourth Committee on possible challenges to space security and sustainability, the first of its kind, showing the growing awareness that such challenges exist and need to be addressed.⁵⁰

All of these are examples of diplomacy at work. None of these measures are perfect, none of them are moving very quickly. But nonetheless, they constitute an important contribution toward keeping the outer space environment free from conflict. And in a world governed by 193 sovereign states, this is the best solution available.

⁴⁴ Center for Strategic & International Studies. "Enhancing EU-U.S. Cooperation in Space: Panel 2." at 00:18:41 (See footnote 37).

⁴⁵ Meyer, Paul. "Failure to Launch?" OpenCanada. 28 Feb. 2013. Web. <https://www.opencanada.org/features/failure-to-launch/> [Retrieved 05 Jan. 2016]

⁴⁶ Listner, Michael J. "The International Code of Conduct: Comments on changes in the latest draft and post-mortem thoughts." The Space Review. 26 Oct. 2015. Web. <http://www.thespacereview.com/article/2851/1> [Retrieved 05 Jan. 2016]

⁴⁷ See the statement by German Ambassador Michael Biontino at the plenary session of the Conference on Disarmament on 20 Jan. 2015.

⁴⁸ For a list of these countries, see UN GA Resolution A/RES/70/27.

⁴⁹ One of many examples would be the U.S.-China Civil Space Cooperation Dialogue, established in June 2015.

⁵⁰ United Nations. "As Fourth, First Committees Hold Joint Meeting, Speakers Stress Need for Holistic Handling of Outer Space Security, Sustainability" 22 Oct. 2015. Web. <http://www.un.org/press/en/2015/gaspd589.doc.htm> [Retrieved 21.04.2016]



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