

RUSSIAN–CHINESE SPACE-WEAPONS-BAN PROPOSAL: A CRITIQUE

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Any initiative attempting to put diplomatic reins on the weaponization of outer space is to be welcomed, and therefore the Russian and Chinese delegations to the Conference on Disarmament (CD) are to be thanked for all their effort on crafting a draft space-weapons-ban treaty. Sadly, discussions within the CD of the issue over the past many years have been largely futile—and hopefully many nations are now recognizing that the time has come for that to change. Nonetheless, the Russian–Chinese treaty text continues to have some problems that raise fundamental questions about the viability of any treaty based on it. The biggest problem with the draft treaty is the fact that it does not capture terrestrially based anti-satellite weapons (ASATs), which are the most serious near-term threat to the security of outer space. The second problem is the clause regarding the “threat or use of force against outer space objects”, which is vague and open to interpretation. The third problem is the perennial one of classifying a “weapon” system coupled with problems of verification, due to the fact that most on-orbit technologies are multi-purpose—a problem that this language fails to fully resolve.

First, the threat to space security that is squarely in our sights today is the proliferation of destructive ASAT technologies based on Earth—weaponry that is not restricted by this draft treaty. China, Russia and the United States have all displayed capabilities to use physical force to attack and destroy satellites, and some other spacefaring powers now also consider following suit. In India, in particular, there appears to be a growing debate about whether India needs to develop and test such weaponry—either to keep up with an incipient ASAT arms race or to “beat” the announcement of any treaty so that they will not be stuck in the same “have not” position as they were when the Nuclear Non-Proliferation Treaty was signed. The proliferation of destructive, debris-creating ASATs however is in fact in no one’s interest—as sooner or later, someone would finally fail to resist the temptation to use them. Space debris is already a serious problem, and

debris threatens all satellites indiscriminately. It knows no nationality, even during times of war. Unfortunately, last year was the worst year ever for debris creation, with the US Air Force now tracking about 18,000 pieces of debris larger than 5cm in diameter—that is, large enough to do serious damage to satellites. Estimates of smaller debris range from the hundreds of thousands to the millions, and even debris of 1cm in diameter can damage or destroy an operational satellite. As it is, the UN Committee on the Peaceful Uses of Outer Space has adopted voluntary guidelines to mitigate the creation of debris because of concern about the ever-more polluted space environment. One of those guidelines is a pledge not to deliberately create debris through the destruction of on-orbit objects. However, that pledge is weakened by both a clause that says if you “must” destroy something on orbit, be sure to do it in a very low orbit where the debris will re-enter the atmosphere—leaving room for ASAT testing in lower orbits. It also includes a waiver for national security. Thus, there remain very few normative or legal obstacles to constrain the development and testing of such ASATs—despite their clear danger to the security of all satellites. Sadly, some nations seem to be ignoring the fact that this type of weapon system would be self-defeating in the long run in their short-term concern about maintaining a military edge in future conflicts—the same dynamic that has resulted in nuclear proliferation despite the dangers of nuclear weapons to the entire human population, as well as to the planet itself. Hopefully, the international community can be more successful in stopping an ASAT arms race than it was at limiting nuclear proliferation—not out of some wish for “peace in outer space”, but out of the recognition that if outer space is rendered unusable by warfare, the entire planet will suffer. I recognize that restricting this technology would be inherently difficult, due to the fact that missile technology designed for other purposes has inherent ASAT capability—as the recent US decision to destroy its ailing spy satellite using a sea-based missile defence system has proven—as do some other technologies that could be adapted to destroy satellites, such as lasers. That said, it would be imprudent for the international community to ignore a threat to outer space that is nearly upon us. One possible solution would be for nations to focus on designing and implementing a ban on the testing and use of destructive, debris-creating ASATs, both in peacetime and in wartime—that is, to focus on restricting dangerous behaviour rather than technology. Further, such a ban is ultimately verifiable because you can easily see the destruction of a satellite. Perhaps this is something that could be added to the current draft treaty text but, as it is, the failure to address

this issue would ensure that a treaty based on this text would fail in the mission of ensuring sustainable use of outer space by future generations.

Second, while it may be counterintuitive, it is unclear what is meant by Article III's "not resort to the threat ... of force against outer space objects". This is because the concept of a "threat"—outside of a direct, declaratory statement of intent to do harm—is really a matter of perception. The current US National Space Policy says that the United States holds the right to "if necessary, deny adversaries the use of space". Is that a threat? I suppose if one considers oneself as a potential US adversary, yes it is. Is the destruction of the Chinese satellite in 2007, even if it proves to be an isolated case, a threat of force? Arguably, yes—especially considering that such an event can instil fears of development and testing of destructive space capabilities. What about missile defences, or laser tracking stations, that could be tweaked to harm satellites? Are they threatening? Maybe, maybe not. The point is that what one nation might see as legitimately preparing to ensure its "right to self-defence" may be seen as "a threat" by another. How do you mitigate that? It strikes me that even finding an agreed definition of "threat" would be awfully difficult; but failure to define it would run the risk that charges of non-compliance would be a recipe for never-ending international dispute. Even the issue of the "use of force" in this article is not clear. Does the text mean that the use of positioning or communications jammers in wartime would be a prohibited use of force? While the draft treaty language defining "use of force" and "threat of force" seems to include them in its scope, such jamming devices already exist in large numbers and have been used in warfare; does anyone really expect nations in possession of such systems to just hand them over? And while this clause does some good to mitigate against the non-inclusion of terrestrially based ASATs directly, its vagueness leaves a great deal of room for concern about how it would or could be applied.

Third, the issue of classifying what is a weapon and what is not, coupled with the problem of verifying a space object's status, has long been the central problem for any space weapons treaty proposal. The first question that needs to be asked is the definitional one: how do you parse what is or is not a weapon in outer space? The draft treaty language uses the term "specially produced or converted to eliminate, damage or disrupt" objects in outer space. But the problem is how do you know if a space system was specially produced, or converted, to do this? Would all nations simply be willing to believe each other's declarations that nothing they intended to

put in orbit was a weapon, even it had weapons capability? Because of the dual-use nature of many on-orbit technologies, the ability to define what is and is not a weapon becomes a critical problem. For example, there has been some interest in building vehicles to refuel satellites or tugs to take down space debris. Each of those systems could also do double duty as an ASAT. And how would you verify that a space tug was really only for use in taking down ailing satellites and large debris, and not operational satellites? It is clear that nations could, in the course of negotiations, simply assign weapons status to objects based on a judgment about their capabilities and their intentions and need for the capabilities, but such a process is likely to be unwieldy and extremely politically contentious. This language, however, says nothing at all about a process for classification—something that I believe needs to be redressed. And it may be that the concern about space weapons is so great that nations could accept a treaty without verification, but given the classification problem, I am not certain that would be the best route. While I understand that before any verification discussion takes place, negotiators need to know what it is they are trying to verify—it does seem to me that it would be useful for the draft to perhaps lay out some options that might be pursued regarding verification. I must reiterate that I am not against the idea of a treaty to ban on-orbit weapons—I personally think the introduction of weapons into orbit would be a very bad thing for international stability, especially among the nuclear powers, and would lead to an ASAT arms race that would be even more destabilizing. Indeed, I think that a simple agreement among all nations in which each declared their intention not to put weapons in orbit would be useful as a norm-setting, confidence-building device. But I do not think that a treaty that seeks to actually prevent their deployment can be designed without some clarity about what is and what is not a weapon—or at least clarity about how exactly that determination is made—and some measures for verifying non-compliance. The language in this draft, in my own humble opinion, would not prevent deployment, and at the same time would become a vehicle for constant political conflict about compliance. That is not to say solutions cannot be found, as any arms control effort is primarily a question of political will, simply that there needs to be more work to find them.

Despite the problems that I have highlighted, I do want to again thank our Russian and Chinese colleagues for their dedicated work on keeping the issue of the non-weaponization of outer space on the table at the CD. It is a critical issue, and one that must be addressed internationally—as the actions of any one actor in outer space affect all others. The utilization of

outer space is fundamentally important to each and every one of us on Earth; indeed, to our ability to ensure the long-term sustainability of Earth itself. The weaponization of outer space would surely restrict the peaceful uses of outer space that are so fundamental to humankind, as well as raise the risks of conflict on Earth. Serious multilateral efforts to prevent that outcome continue to be necessary and ever more urgent. I urge all the members of the CD to continue to try to find ways—including near-term alternatives to an orbital-weapons-ban treaty such as the development of confidence-building measures, pursuit of a binding code of conduct for space actors, and an agreement to prevent testing and use of destructive ASATs—to lower the risk of warfare in outer space.