

CONFERENCE ON DISARMAMENT

CD/1872

18 August 2009

ENGLISH

Original: CHINESE and
RUSSIAN

**LETTER DATED 18 AUGUST 2009 FROM THE PERMANENT
REPRESENTATIVE OF CHINA AND THE PERMANENT
REPRESENTATIVE OF THE RUSSIAN FEDERATION
TO THE CONFERENCE ON DISARMAMENT ADDRESSED
TO THE SECRETARY-GENERAL OF THE CONFERENCE
TRANSMITTING ANSWERS TO THE PRINCIPAL QUESTIONS
AND COMMENTS ON 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)” INTRODUCED BY THE RUSSIAN
FEDERATION AND CHINA AND ISSUED AS DOCUMENT
CD/1839 DATED 29 FEBRUARY 2008**

We have the honour to transmit herewith the text, in Chinese and Russian, of a draft document entitled “Principal questions and comments on 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)” (CD/1839).

We should be grateful if you would have this letter and the annexed text in Chinese and Russian issued as a document of the Conference on Disarmament.

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Annex

PRINCIPAL QUESTIONS AND COMMENTS ON 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, AND THE ANSWERS THERETO

This document sets out the principal questions and comments put forward by the delegations to the Conference on Disarmament during consideration 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 (document CD/1839) (hereinafter “PPWT”) in 2008. They include statements made during formal plenary meetings of the Conference on Disarmament, in the informal thematic debates held on 7 and 21 February and 5 August 2008, and at the open-ended meeting organized jointly on 6 August 2008 by China and the Russian Federation with the participation of the United Nations Institute for Disarmament Research. The document also contains the key proposals and recommendations put forward in non-papers by the delegations of Austria, Belarus, Canada, France, Germany, the Netherlands, New Zealand, South Africa, Sweden, Switzerland, Ukraine, the United Kingdom and the United States of America.

Question 1: The prohibition of the threat or use of force in outer space is meaningless because it cannot be reliably verified.

Answer: The draft PPWT prohibits the use or threat of force “against outer space objects”; it does not prohibit the use or threat of force “in outer space”.

As for the idea that such a ban cannot be “reliably verified”, it should be noted that, from a legal standpoint, the term “threat” means an intent to cause physical, material or other harm that is expressed orally, in writing, through actions or by any other means. In order for the country or countries at which they are directed to perceive them, such threats must be clearly expressed. Thus the question of the “reliable verification” of the prohibition of the “threat of the use of force” does not arise.

Similarly, the destruction, damaging or taking of any other hostile action against a space object can be detected. Given the current level of development of space surveillance systems, it is quite feasible to identify the source of such hostile acts.

If one accepts the statement in question No. 1, one must abolish one of the fundamental principles of international relations, which is refraining from the use or threat of force. This principle has long been established as a fundamental norm of international law and is clearly stipulated in Article 2, paragraph 4, of the Charter of the United Nations.

This principle is also to be found in General Assembly resolution 3314 (XXIX) of 15 December 1974, on the definition of aggression, in the 1975 Helsinki Final Act of the Conference on Security and Cooperation in Europe and in the 1987 Declaration on the Enhancement of the Effectiveness of the Principle of Refraining from the Threat or Use of Force in International Relations (General Assembly resolution 42/22).

In the field of outer space, article III of the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (known as the Outer Space Treaty for short), stipulates that all outer space activities shall be carried out in accordance with international law, including the Charter of the United Nations. This provision automatically implies respect for the principle of refraining from the use or threat of force.

Also implicit in this principle is the notion that all States have an obligation to use only peaceful means to settle their disputes.

Many leading international space law experts hold that this principle means that any unauthorized hostile interference with the spacecraft of another State, including destroying or damaging the spacecraft, deliberately impeding its functioning, seizing it or modifying its orbit, is impermissible.

This principle is not, however, explicitly established in the 1967 Outer Space Treaty.

The most important task at present is to reach consensus in the form of a legal commitment and a legal instrument on the prevention of the placement of weapons in outer space and the threat or use of force against outer space objects. In order to facilitate an early consensus, then, it would seem appropriate to set aside the question of verification and other contentious issues for the time being. In the future, as science and technology progress and when the conditions are right, the addition of a verification protocol to PPWT may be considered. The question of verification could also be considered from another standpoint. Although the 1967 Outer Space Treaty does not have a verification mechanism, it is still an important and effective instrument. While it would be ideal if the new treaty had a reliable and effective verification mechanism, it can still, like the Outer Space Treaty, serve its purpose even without verification provisions.

Question 2: Isn't there a loophole in the provisions of the draft PPWT concerning the right to self-defence (art. V) where the use of anti-satellite weapons is concerned?

Answer: The draft PPWT does not modify the provisions of international law that relate to the right to self-defence, which is an important sovereign right of every State. Article 51 of the Charter of the United Nations does not make this right conditional on certain forms or means of armed attack. Likewise, it does not limit the measures that a State may take in exercise of the right to self-defence, nor does it restrict their application in terms of space.

At present, a State may use in self-defence any weapon that is not prohibited by international law. The draft PPWT does not ban anti-satellite weapons as a weapons class, but limits the proliferation of such weapons by imposing a comprehensive ban on the placement of any kind of weapon (including anti-satellite weapons) in outer space and prohibiting the use for hostile purposes of anti-satellite weapons based anywhere. Thus the draft PPWT does not seek to expand or restrict the relevant provisions of Article 51 of the Charter, nor does it create any loopholes that would permit the use of anti-satellite weapons.

It is understood that the obligations set out above are applicable to the States parties to PPWT. States parties retain their right to self-defence in the event of hostile acts by States that are not parties, and this right is confirmed in article V of the draft PPWT.

Question 3: *Is it true that the draft PPWT does not prohibit:*

- (1) *Ground-based, sea-based and air-based ABM systems or ballistic missiles and their re-entry vehicles;***
- (2) *Ground-based, sea-based and air-based anti-satellite weapon systems or the development or testing thereof;***
- (3) *The testing of artificial satellites intended for use against other space objects for hostile purposes?***

If so, why not?

Answer:

(1) PPWT does not prohibit interceptors of ground-based, sea-based or air-based ABM systems or ballistic missiles and their re-entry vehicles. This is because such weapons are not placed in space (they are not sent into orbit or installed on celestial bodies, nor are they placed in space by any other means).

(2) PPWT does not prohibit the development of ground-based, water-based or air-based anti-satellite weapons systems because there is no way that such activity can be effectively verified. Nor does it prohibit the testing of such weapons by a State (including testing on its own targets in space) because such testing (on the Earth's surface, in the atmosphere or aimed at other targets in space) is very difficult to detect and locate accurately. Article II of PPWT does prohibit the use of such systems against space objects for hostile purposes, which means, in accordance with the definition of "use of force" contained in article I, subparagraph (e), "actions aimed at destroying them, damaging them, temporarily or permanently disrupting their normal functioning or deliberately changing their orbit parameters, or the threat of such actions". This prohibition does not cover situations involving the right to self-defence (cf. the answer to question 2).

(3) If "artificial satellites" are considered to constitute "weapons in space" (used for "destroying [outer space objects], damaging them ... or disrupting their normal functioning"), then PPWT prohibits their placement and testing in outer space.

Question 4: *Under the draft PPWT, it remains possible for a State to destroy its own satellite (or another State's satellite at the request of that State), thereby creating space debris. Please comment on this.*

Answer: This possibility certainly exists; for example, under exceptional circumstances (such as a satellite going out of control and endangering objects on the Earth's surface, etc.) it may be necessary for a State to destroy an out-of-control space object (or to destroy another State's space object at the request of that State) in order to minimize or eliminate the threat posed to other space objects or to activities on the Earth's surface or in the atmosphere. However, PPWT is not the only instrument governing outer space activities. There are many treaties that contain prohibitions on the accumulation of space debris, including the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, the 1972 Convention on International Liability for Damage

Control by Space Objects, and the Space Debris Mitigation Guidelines of the United Nations Committee on the Peaceful Uses of Outer Space. States should be guided by these instruments when they decide to destroy one of their space objects.

Question 5: *Does the phrase “follows a section of such an orbit before leaving this orbit” (art. I, subpara. (d)) mean that the use of partially orbital combat systems, such as ballistic missiles, is prohibited? If this is not the case, please explain why.*

Answer: Article I defines the terms and concepts used in the draft PPWT; it does not contain any prohibition clauses. Subparagraph (d) defines weapons that “have been ‘placed’ in outer space”. The phrase “follows a section of such an orbit before leaving this orbit” means that a “weapon” that has orbited halfway around the Earth can either “return” to Earth or “drift” into space.

With regard to “partially orbital combat systems”, if they are used in order to “destroy, damage or disrupt the normal functioning” (art. I, subpara. (c)), then the prohibition in article II shall apply.

Question 6: *Does the draft PPWT prohibit the use of laser systems on the ground aimed at “blinding” espionage satellites or ground- or air-based electromagnetic suppression systems? If this is not the case, please explain why.*

Answer: The draft PPWT does not prohibit the development or testing of ground-based laser or electromagnetic suppression systems, including their testing against a State’s own space targets, because it is difficult to detect or locate such tests (on the Earth’s surface, in the atmosphere or against a space target). However, the obligations imposed under article II prohibit the use of laser and electromagnetic suppression systems to take hostile actions against outer space objects, as defined in article I, subparagraph (e). This prohibition does not apply to situations involving the right to self-defence (see answer to question 2).

PPWT does not prohibit the development or the testing elsewhere than in outer space of space-based electromagnetic suppression systems. As electromagnetic suppression systems fall into the category of “weapons in outer space”, PPWT prohibits their placement in outer space.

Question 7: *The phrase “in any other place under its jurisdiction or control” (art. III) calls for clarification. Does it refer to the maritime exclusive economic zone or to objects such as the International Space Station?*

Answer: The phrase “in any other place under [the] jurisdiction or control [of a State]” has the following meaning: in the context of general international law, it refers to territories (occupied, annexed or trust territories) that are controlled and administered by a foreign State as well as to objects situated in the territory of one State but under the jurisdiction of another State; in the context of international maritime law, it refers to the exclusive economic zone, continental shelf and artificial islands and installations of a State and to vessels flying the flag of that State; in the context of international air law, it refers to civilian and military aircraft registered in that State; and in the context of international space law, it refers to space objects registered in that State.

Question 8: *The definition of the term “outer space” in terms of altitude is inadequate and can give rise to legal disputes with regard to objects in outer space and in the atmosphere, objects that only pass through space (ballistic missiles, partially orbital combat systems, including their re-entry vehicles) and aerospace objects that can function in both the atmosphere and outer space. Article I, subparagraph (c), of PPWT refers to both “outer space” (starting at 100 km above sea level) and “the atmosphere” (within 40 km of sea level); what do the 60 km that lie between these two constitute?*

Answer: International space law has not determined the limits of outer space or the atmosphere. The United Nations Committee on the Peaceful Use of Outer Space (COPUOS) and its Legal and Technical Subcommittees are currently considering the question of the delimitation of outer space. The definition of outer space in the draft PPWT (“the space above the Earth in excess of 100 km above sea level”) was proposed solely for the purposes of the Treaty. This limit is set at the minimum altitude of the perigees of artificial satellite orbits, i.e. 100 km above sea level.

Thus the prohibition of the placement of weapons in outer space is applicable to any altitude higher than 100 km above sea level; it does not cover space below an altitude of 100 km. Accordingly, the division of space into segments (from sea level to 40 km above and from 40 km to 100 km above sea level) has no legal significance for PPWT.

The term “outer space” in article I, subparagraph (c), refers to targets which weapons placed in outer space could strike. It should be noted that the upper limit of the atmosphere has not been defined in international air law.

Pursuant to article I, subparagraph (c), aerospace objects carrying weapons while in orbit or partial orbit are subject to the obligations set out in PPWT.

Question 9: *What is the likelihood that the international community can reach a consensus on the term “weapons in outer space” (art. I, subpara. (c))?*

Answer: Article I, subparagraph (c), clearly stipulates that any device considered to be a “weapon in outer space” must be specially produced or converted to perform the tasks enumerated in that subparagraph. Such devices must possess specific features. Other devices that are referred to in discussions as “possible weapons” (including spacecraft used for peaceful purposes) cannot be considered to be weapons because they have not been specially produced or converted for the aforementioned purposes. However, while such spacecraft cannot by virtue of their features be considered to constitute weapons, PPWT nevertheless prohibits their use as a means of exercising force - e.g. by deliberately causing them to collide with another satellite in order to destroy it.

Question 10: (Concerning article VII, on the settlement of disputes) What are the specific procedures of this dispute settlement mechanism? How will it reach decisions? Will such decisions be binding? If so, what mechanism will exist for their enforcement?

Answer: The dispute settlement mechanism should be established on the basis of the authority and working mechanisms of the executive organization and may become the subject of an additional protocol to PPWT.

Question 11: (Concerning the PPWT executive organization provided for in article VIII)

(1) What will be the composition, functions and dispute-settlement mandate of the executive organization? PPWT should contain specific provisions regarding the establishment, on the basis of objective criteria and solid facts, of a mechanism to deal with violations of the provisions of PPWT.

Answer: We remain open to discussion on this point. The provisions in question might be contained in an additional protocol additional to PPWT.

(2) The draft PPWT does not clearly stipulate what authority the executive organization will have to address violations of the Treaty by member States.

Answer: The draft PPWT is not intended to confer any supranational authority on the executive organization, such as empowering it to take coercive measures to address sovereign States' non-compliance with the Treaty. The reference to steps to put an end to a violation of the Treaty by a State party is understood to mean coordinated efforts aimed at averting a crisis, chiefly by settling disputes relating to alleged instances of non-compliance.

Question 12: Is it advisable to introduce a verification mechanism to monitor compliance with the third fundamental obligation under the draft PPWT ("not to assist or induce other States ... to participate in activities prohibited by [the] Treaty", art. II)? How can transfers of dual-use space technologies be restricted or controlled?

Answer: PPWT does not cover the transfer, control or proliferation of dual-use space technologies. Regardless of the existence of the draft PPWT, the challenges posed by proliferation will remain. This issue should be considered separately.
