

# CONFERENCE ON DISARMAMENT

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**LETTER DATED 14 FEBRUARY 2006 FROM THE PERMANENT REPRESENTATIVE  
OF THE RUSSIAN FEDERATION AND THE PERMANENT REPRESENTATIVE OF  
CHINA TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE  
SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING A  
COMPILATION OF COMMENTS AND SUGGESTION TO THE WORKING PAPER  
ON PAROS CONTAINED IN DOCUMENT CD/1679 DATED 28 JUNE 2002**

We have the honour to transmit the Chinese, Russian and English texts of the working paper "Compilation of Comments and Suggestions to the CD PAROS Working Paper CD/1679", prepared by the Russian and Chinese delegations to the CD.

We would be grateful if this letter and the attached working paper could be issued and circulated as official documents of the Conference on Disarmament.

(Signed:) Valery Loshchinin  
Ambassador  
Permanent Representative of the  
Russian Federation to the  
Conference on Disarmament

(Signed:) Cheng Jingye  
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to the Conference on Disarmament

## **Compilation of Comments and Suggestions to the CD PAROS Working Paper (CD/1679)<sup>1</sup>**

**(Second, revised and amended version as of February 13, 2006)**

### **I. General Comments**

Some delegations believed the joint Chinese and Russian initiative is a timely one with a view to cover the loopholes of the current legal system with regard to the peaceful use of outer space. They commended the Russian and Chinese delegations for the Working Paper CD/1679 of June 2002 on draft elements for a PAROS agreement and the three subsequent thematic non-papers, which were useful in helping to identify and consider possible elements of a PAROS treaty.

They also noted the contributions of the three conferences on space security, involving governmental, NGO and academic experts, which were held in Geneva in November 2002, March 2004 and March 2005. These meetings had served to illustrate the wide interest in an agreement on the non-weaponization of outer space. These meetings urged the CD to start substantive work on PAROS issues at an early date so as to enable full-fledged discussion and negotiation on this matter.

One delegation preferred to negotiate as a first step an instrument best regarded as a space-based weapon ban. One delegation suggested working on building norms in the area of space asset safety, rather than negotiating a treaty in the first place. Some delegations suggested starting with CBMs, such as pre-notification of ballistic missile launches.

One delegation suggested giving consideration to putting forward in-depth papers on specific topics, such as “definitions”, “the use of outer space for civilian and military purposes”, etc, to explore possible legal methods for ensuring the maintenance of a weapons-free outer space. A new title of CD/1679, i.e., “Elements for Dealing with Outer Space Issues” was proposed. A suggestion of avoiding duplicating the work of the Committee on the Peaceful Uses of Outer Space (UNCOPUOS) at Vienna was also made.

As regards working out an international instrument on outer space, it was suggested that the most efficient legal approach would be to incrementally secure international instruments in the areas where consensus may exist.

It was repeatedly noted that the Conference on Disarmament was the designated forum to carry out the relevant negotiations. Negotiation efforts should be coordinated within and between

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<sup>1</sup> Prepared by the delegations of Russia and China to the CD on the basis of comments and suggestions made by members and observers of the CD and the UNIDIR in their notes, non-papers, addresses and consultations, as well as statements and interventions at the open-ended meetings on PAROS, including on August 16, 2005.

the different forums dealing with specific aspects of outer space: the CD, the UNCOPUOS, the UNGA First Committee, the NPT review process.

In addition to discussing comprehensive legal norms for a ban on space based weapons it also makes sense to include measures for space security that are easier to obtain because they more or less serve the interests of all states, such as space monitoring, confidence building, debris reduction, space cooperation, and rules of the road.

## II. Definitions

Some countries are suggesting definitions should be included in the proposed treaty. It was suggested that the thematic non-paper on definitions issues of PAROS would form the basis of focused discussions in a working group or in the CD. One delegation reiterated that a technical examination of these definitions would be necessary

It was also recommended that the number of definitions included in an international legal instrument on PAROS should be kept to a minimum. It was recalled in this context that the Outer Space Treaty had no definitions. Even with a shortened list, one will have to guard against becoming stuck on any definition. For example, a definition to delimit "outer space" has been discussed by the COPUOS Legal Subcommittee since 1959 without agreement.

A section containing definitions of the major key terms or expressions would help to clarify the intended scope of the treaty.

The definition of a "space object" would be useful. It might therefore be best to coin a term or phrase other than "space object" to clarify the intent of the instrument.

This paragraph would benefit from definitions for "objects" and "weapons" to enunciate clearly the scope of the intended obligation and help establish clarity of purpose.

More clarity might also be gained if a "weapon" were defined in terms of a component of a system, its intended effects and the means it employs to achieve its intended effects.

"Peaceful purposes" includes "non-aggressive" military use of outer space. The term "peaceful purposes" could be explicitly defined.

"Peaceful purposes" includes "other military purposes". "Other military purposes" should be clearly defined.

The term "trajectory" should be clarified, because objects like intercontinental missiles are not outer space weapons, although they partly pass through outer space.

The notion of "peaceful use" should be defined to exclude different interpretations of the proposed Agreement's provisions aimed to prevent the deployment of weapons, the threat or use of force in outer space.

Some definitions that deal with physical issues should not be seen as irresolvable. With "space objects" being ruled by orbital mechanics, it is not necessary to set a precise line where outer space begins.

Banning weapons in space should focus on those systems that are "specially designed" to destroy space objects (including ASAT on the ground, in the sea or air) and space objects themselves specially designed to destroy any other target. While the clause "specially designed" does not resolve the dual-use issue, it would include a large class of the most threatening systems and activities.

Another issue is the difference between a generic weapon system and a system that might be used as a weapon (an ASAT vs. the space shuttle). A related issue is a weapon intended for one purpose (ABM) but which has a residual capability in another field (ASAT). These points are not captured. The text defining weapons does not include terrestrially based ASAT weapons.

The language on location of launchers technically would not cover sea launch activities or any other launch activities that are not undertaken "in the territory of a state."

Missing here is any discussion of weapons used to support aggressive military activities - targeting and cueing satellites, for example, or even GPS. A third paragraph should be devoted to uses that go beyond non-aggressive use.

The line about "self-protection" for cosmonauts opens cracks that might be abused; that measure does not seem necessary. This item should not be included as it defeats the purpose, as some states may demand other weapons for "self-defense." Various agreements already pledge all states to help astronauts in distress.

There is a need to provide definitions for "space debris" and "launching state". The latter is fundamental for all space activities. As a starting point of reference, the Liability and Registration Conventions can be used, as they provide a definition for "launching state", although not perfect one.

One delegation suggested that the treaty must ban only offensive weapons in space. There should be an exception for weapon-like systems for satellite protection against debris.

It was also suggested to define "non-destructive" space weapons and "legitimate military activities".

### **III. Basic Obligations**

Para. 1: a) The words "testing", "production", "deployment", "transfer" and "use" could be used to elaborate the intended prohibitions; b) Include new sub-para: "prohibition on the deployment of weapons on orbital trajectories to and from celestial bodies including the Moon, or in orbit around the Moon or any other celestial body".

Para. 2: a) The reference to “general principles of international law” in Article V of CD/1679 could perhaps cover the issue of “threat or use of force” curbing the need for definitions; b) The concept of a temporary operational disruption, displacement or other non-damaging interference with a space object by another space object may also need to be addressed; c) Frame the inherent use ban of this obligation to include the testing of any weapons against space objects or “for anti-satellite purposes”.

Para. 3: International trade in dual-use space hardware, software and technical data is enormous, thus this obligation could be hard to fulfill. Suggestions: a) Consider controls or limitations on launches of weapons into outer space on behalf of other states; or b) Focus on the use of the hardware, software and technical data, which have to be consistent with the obligations set out in the instrument.

Should include prohibition of objects not only in orbit, but also in a trajectory status taking the spirit of Article 3 (3) of the Agreement Governing the activities of States on the Moon and other Celestial Bodies.

It was proposed that such an instrument need not be a blanket prohibition on all weapons in space. A gradation of measures could be envisaged: from prohibitive measures, through restrictive measures and to permissive measures. For example, measures relating to lasers would therefore not be prohibitive but rather restrictive (allowing the use of only certain categories of lasers while banning other uses).

A treaty should not only focus on deployment restraints but also on the whole process from research to use. A test ban for space weapons is the key issue in this process as it limits capabilities before they emerge and is the most visible part to be monitored. In addition, there should be a monitoring system also focusing on the production process and production facilities.

A concern was voiced that it could be counter-productive to seek to include measures to prevent temporary and reversible disruption of normal functioning of outer space objects. Jamming technology is already widely available, as are other types of electronic warfare.

#### **IV. The Use of Outer Space for Peaceful and Other Military Purposes**

In Para. 2, a variation of the OST could be considered in this context: "States Parties shall carry on activities [...] in outer space [,including the Moon and other celestial bodies]in accordance with the general principles of international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international cooperation and understanding".

Some concrete steps towards securing the peaceful use of outer space were accentuated. It was suggested that the UNGA: pass a resolution defining the “peaceful uses of outer space” (prohibiting weapons in space but allowing military uses of space); seek an advisory opinion of the International Court of Justice on the definition of the “peaceful uses” clause; and convene an open-ended working group or establish an Ad-Hoc Committee within the CD to discuss a treaty on cooperative security in outer space.

## **V. CBMs**

Consider moving from CBMs to actual verification measures, of a sort sufficient to generate the evidence upon which objective compliance determinations could be made, and to feed into the dispute resolution mechanism.

Since the International Code of Conduct on Prevention of Proliferation of Ballistic Missiles (ICOC) aims to increase confidence by such transparency measures as pre-launch notification, its relevant wording can be incorporated into CD/1679 to win the support of ICOC subscribing states.

The wording of CBMs for a future outer space treaty should refer to multilaterally negotiated and internationally accepted languages rather than copying non-negotiated text. In this context, the experience gained in civil space activities could be used for elaborating Codes of Conduct.

Establish a regime of prior notification of launches of space launchers and ballistic missiles which could be supplemented by the setting-up of an international center responsible for the centralization and redistribution of collected data, so as to increase the transparency of space activity.

The States parties should transmit in writing to an international center notification of launches of space launchers (carrying satellites or other space objects) and ballistic missiles which they have planned. Such notification could take place one month before the planned date of launch (launch windows in terms of weeks or days, and time of each launch) and would be confirmed 24 hours before the actual launch.

As for space launchers, apart from the planned date of launch, the launching state should communicate the geographic impact area.

Regarding space objects, the owning State or State of registry should communicate the following information:

Name of owning State or State of registry; Orbital parameters (perigee, apogee, nodal period, inclination); General function of the space object; Reference to its unarmed character; Indication of maneuverability; Physical characteristics (mass, planned lifetime).

With respect to missiles with a ballistic trajectory having a range of 300 km or more, the launching State should communicate:

Date of launch; Launching area; Impact area.

An international notification center should be set up. The center would essentially fulfill the following function:

Receive notifications of launches of ballistic missiles and space launchers transmitted to it by States parties;

Receive the information transmitted by States parties on launches actually carried out. State-parties, possessing detection capabilities shall communicate to the international center, on a voluntary basis, data relating to launches detected by them;

Place through a data bank, the above-mentioned information at the disposal of the international community.

The view was expressed that other measures for space security ought to be also included, such as: space monitoring; debris reduction; space cooperation; “rules of the road”, and further confidence building. It would also lay the necessary foundation for any future treaty.

Negotiating a treaty might take time and therefore immediate work on building norms in the area of space asset safety is essential. Improved space surveillance and data exchange would not only help to get a better handle on dangerous space debris and improve collision avoidance, but would also increase transparency of space operations that, in and of itself, would be a CBM.

A number of concrete CBMs was suggested that could be taken in parallel to negotiating a treaty on the prevention of weaponization of outer space and that would enhance security in outer space. Among other steps, nations could agree not to undertake weapon tests, including because they would create significant amounts of debris.

Establish “rules of the road”, or a code of conduct, to regulate activities in outer space. A code of conduct in outer space, as proposed, would mean: no simulated attacks on space assets and satellites, no dangerous maneuvers, advance notice of maneuvers, no harmful laser use, mitigation of debris, advance notice of launch, regulation of access and launch, and no interference with national technical means. A code of conduct would require: cooperative monitoring, transparency, notification, traffic management and tracking, and verification.

It was suggested that states may seek inspiration from the Incidents at Sea Agreement, which defines good practice, in particular to avoid collisions and ambiguous situations.

Self-declared moratoria on tests and placement of weapons in space would also be an important political gesture of good will. Unilateral declarations by states not to be the first to place weapons in space could be very useful in promoting a “coalition of the willing” to prevent weaponization.

Space exploration is costly and is best served through international cooperation. A regime of international collaboration in space would prevent certain countries from the temptation of putting weapons in space by allaying their security concerns.

## **VI. Verification**

It was suggested that as no weapons have yet been deployed in outer space, the verification measures under discussion are purely preventive in nature, and consensus must be achieved first on the prevention of deployment of weapons in outer space, rather than verification. Once a ban on the weaponization of outer space is realized, other issues, like verification, might be easier to approach.

Some countries suggested verification should be included in the proposed treaty.

Verification measures could include: open source information analysis; state declarations; terrestrial observation of space objects; space-based observation of space objects; sensors on board space objects for in situ sensing, and on on-site inspections. The negotiating parties of the treaty would first need to agree on the obligations to be verified and the level of confidence to be required.

CBMs could be included in this article.

As a further confidence building measure, there should be a moratorium on the testing of all kinds of weapons and development of weapons in outer space.

Verification is an essential element of the proposed treaty that could provide for the settlement of any concerns over other States parties' adherence to the treaty. It was suggested that verification issues could not be easily postponed.

Others argued that the technical challenges in ensuring effective verification of compliance with such an agreement, coupled with the political difficulties, meant that the development of a verification mechanism would have to be postponed and addressed within an additional protocol.

It was suggested that with current technology, and coupling in new reporting requirements for launchers and operators, an international system could be put together to carry out space surveillance with reasonable accuracy.

Verification of a treaty for outer space could adopt a layered approach of sufficient intrusiveness to discern weapon-related developments from non-weapon developments, even in an industry where military and civilian technologies are similar and missions frequently dual-use.

According to the 1975 Convention on Registration, launching states are required only to report the initial insertion orbit of a satellite, not its final destination. That is a critical loophole that needs to be plugged to ensure verification.

Space monitoring could be developed further. Some space-faring nations have a space tracking network that can be linked. With existing technical equipment and use of Internet, a lot of information can be gathered and exchanged, as is already being done to a degree.



While understanding concerns about verification of any treaty that includes terrestrially based ASATs, testing of such weaponry could be banned and that ban could be verified.

A number of steps could be undertaken at an early stage, including better implementation of existing commitments, elaboration and adoption of CBMs.

Specific issues contained in the Russian-Chinese thematic paper on verification deserve a careful technical study. In this context one of the relevant issues is the cost of verification.

Verification is more than a purely technological issue and will require extensive discussion.

## **VII. Settlement of Disputes**

Introduction of a third party mechanism might be useful. The entire section on Settlement of Disputes could be redrafted to mirror Paragraphs (2) and (3) of Article 15 of the Moon Treaty, along the following lines:

"A State Party which has reason to believe that another State Party is not fulfilling the obligations incumbent upon it pursuant to this Agreement or that another State Party is interfering with the rights which the former State has under this Agreement may request consultations with that State Party. A State Party receiving such a request shall enter into such consultations without delay. Any other State Party which requests to do so shall be entitled to take part in the consultations. Each State Party participating in such consultations shall seek a mutually acceptable resolution of any controversy and shall bear in mind the rights and interests of all States Parties. The Secretary-General of the United Nations shall be informed of the results of the consultations and shall transmit the information received to all States Parties concerned".

"If the Consultations do not lead to mutually acceptable settlement which has due regard for the rights and interests of all States Parties, the parties concerned shall take all measures to settle the dispute by other peaceful means of their choice appropriate to the circumstances and the nature of the dispute. If difficulties arise in connection with the opening of consultations or if consultations do not lead to a mutually acceptable settlement, any State Party may seek the assistance of the Secretary-General [in this context, the Executive Organization perhaps], without seeking the consent of any other State Party concerned, in order to resolve the controversy".

The joint working paper could also benefit from including provisions for the gathering and examination of agreed verification information as part of the operation of the dispute resolution mechanism.

A number of questions of detail will need to be settled. For example, which rules of procedure are to be applied? How will decisions be reached? Will the decisions be binding? If so, what would be the enforcement mechanism(s)?

The relevant text of CD/1679 should be maintained since it is much better than the relevant part of the “Compilation of Comments and Suggestions to the CD PAROS Working Paper” of July 31, 2003.

The relevant content of CWC and BWC can be consulted in this article.

### **VIII. Executive Organization**

This section needs significant expansion to address issues related to membership and authority of the Executive Organization, its exact mandate in relation to the settlement of disputes, and the case of whether an existing organization could be pressed into service in lieu of creating a new body.

Para.1 a). Revise as: receive for consideration inquiries by any State Party or a group of States Parties to the Treaty related to a dispute aroused by a suspected violation of this Treaty by any State Party to the Treaty;

Para.1 d). This obligation could be read as an unbounded set of incentives or penalties. The treaty would need to set out clear provisions of objective criteria and verified evidence to ascertain non-compliance, and details of the decision-making mechanism.

The obligation of the executive organization and the mandate of meetings of State Parties should be clearly stipulated.

This Article should address issues related to membership and authority of the Executive Organization and its mandate to consider and resolve disputes. The CWC offers some useful food for thought in this regard, as does the IAEA Statute.

The role of the Executive Organization in registration - one of the fundamental verification means - should be explored.

### **IX. Amendments to the Treaty**

The second half of Para. 2 shall spell out explicitly the amendment procedure of the OST: "Any State Party to the Treaty may propose amendments to this Treaty. Amendments shall enter into force for each State Party to the Treaty accepting the amendments upon their acceptance by the majority of the States Parties to the Treaty and thereafter for each remaining State Party to the Treaty on the date of acceptance by it".

This part should be consistent with the relevant content of the Vienna Convention on the law of the treaties.

## **X. Signature and Ratification of the Treaty**

Instruments of ratification should be deposited with UN Secretary General.

## **XI. Entry-into-Force of the Treaty**

Ratification of P5 should not be the precondition for treaty EIF, in order to avoid the fate of the CTBT. This is unduly restrictive and could act to condemn the entry-into-force to failure. It might be more effective to define a number of ratifications for EIF rather than to establish an explicit list of countries. It is better to avoid such a placement of P5 in an EIF formulation. One may consider two options:

Option 1: List all states with a space launch capability but indicate that the ratification of a specified number (i.e. not all) of them would trigger entry-into-force;

Option 2: Request ratification by a specific number of "states that can successfully launch objects into outer space" or something along those lines, rather than naming them.

It is the lack of political will rather than the EIF clause that obstructed CTBT from EIF. Conversely, the point was made that the future treaty should be ratified by all P5 states. Otherwise the effectiveness of the Treaty will be weakened.

A doubt was expressed over the relevance of ratification by 20 states as a precondition for the treaty EIF. It was underlined that the treaty would be effective only if ratified by all the states with capabilities in outer space.

## **XII. International Cooperation**

The elements of cooperation and assistance of peaceful use of outer space should also be added to the proposed treaty.

“International cooperation” and “CBMs” are closely related, so they can be merged into one section. The proposed language is as follows: “Each State party shall endeavor to establish joint projects and programmes with other State parties to further promote peaceful uses of outer space for the benefit of all humankind”.

“States shall follow the principle of mutual cooperation and assistance in the most adequate way, on an equitable and mutually acceptable basis, taking into account the particular needs of developing countries”.

### **XIII. Possible Additional Elements**

Periodic review conferences.

An obligation not to enter into international obligations contrary to the obligations of the treaty.

Naming of the depository governments.

A requirement that a state party to the treaty may not make reservations.

A special provision banning anti-satellite weapons.

Specific technical measures to mitigate and prevent debris creation, as well as to track and to eliminate debris.

A specific language for issues of registration and liability.

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