



# General Assembly

Distr.: General  
21 September 2022

Original: English

---

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

Geneva, 12–16 September 2022

Item 6(b) of the agenda

**Consideration of issues contained in paragraph 5 of the General Assembly resolution A/RES76/231:**

**To consider current and future threats by States to space systems, actions, activities and omissions that could be considered irresponsible**

## **Aide-Memoire on Proposed United Nations General Assembly Resolution on Destructive Direct-Ascent Anti-Satellite Missile Testing**

### **Submitted by the United States of America**

1. The United States plans to submit a resolution to the United Nations First Committee at the 77th session of the United Nations General Assembly calling upon countries to commit not to conduct destructive direct-ascent anti-satellite missile (ASAT) tests, as such tests can undermine international peace and security and are a threat to the long-term sustainability of the outer space environment and to all countries' ability to explore and use outer space for peaceful purposes. This resolution demonstrates the commitment of the United States to developing transparency and confidence-building measures and norms of responsible behavior for outer space activities that could ultimately lead towards the negotiation of a legally binding agreement limiting destructive direct-ascent anti-satellite missile tests. The United States encourages all nations to recognize that destructive direct-ascent anti-satellite missile tests are in no one's interest, and to support this resolution and make the commitment described therein as a key principle of space security.

### **I. Background**

2. One of the most pressing threats facing satellites, and especially humans in orbit, comes from the destructive testing of a direct-ascent anti-satellite missile. The intentional destruction of a satellite caused by the strike of an anti-satellite missile creates debris, only some of which can be tracked. That debris will spread out over time, becoming a more challenging hazard to launch systems and satellites using the affected orbits. Because the debris and spacecraft travel at extremely high speed (approximately 17,500 mph in low Earth orbit), even a tiny piece of orbital debris colliding with a spacecraft could cause significant, even catastrophic, damage. Depending on the altitude at which this debris is created, its lifetime in orbit can range from days to millions of years.

3. Satellites are an important part of the economic and security prospects of all countries, supporting domestic and international communications, navigation, weather forecasting, environmental monitoring, border monitoring, exploration, research, and many other activities. The ability of a particular satellite to provide such services over time depends largely upon how much fuel is carried by the spacecraft to allow for maneuvers, both to keep the satellite in orbit and to avoid collision with other satellites or trackable debris. When a



spacecraft is assessed to have a high probability of collision related to debris, the operator may conduct a maneuver to prevent the spacecraft from impact. Such a maneuver reduces the amount of fuel available, thereby reducing the total lifetime of the satellite. The satellite may also be taken out of operation temporarily during the conduct of the maneuver. Therefore, destructive direct-ascent ASAT missile testing unnecessarily burdens all countries by requiring increased spacecraft collision avoidance capabilities, analyses, and mitigation actions to avoid the debris resulting from such tests, which in turn may cause potential interruptions in space-based services and benefits.

4. There are even greater ramifications for human spaceflight. The “envoys of mankind” residing in low Earth orbit are extremely vulnerable to space debris and must take major precautions to avoid collisions that likely would prove fatal. For example, on June 16, 2022, the International Space Station was forced to conduct an unscheduled maneuver to avoid a fragment from a satellite that had been destroyed by a direct-ascent anti-satellite missile test.

## **II. Related International Obligations, Guidelines, and United Nations Activities**

5. Although 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 (“Outer Space Treaty”) prohibits the deployment of nuclear weapons and other weapons of mass destruction in outer space, there are no legally-binding prohibitions specific to anti-satellite missiles.

6. The United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) in Vienna has a long-standing mandate to address issues associated with international cooperation to advance the peaceful uses of outer space, including the organization of the mutual exchange and dissemination of information on outer space research.<sup>1</sup> The 2007 Space Debris Mitigation Guidelines, produced by UNCOPUOS, are a set of voluntary measures that States can take to curtail the creation of debris. These guidelines should be considered during the mission planning, design, manufacture, and operational (launch, mission and disposal) phases of a satellite’s and orbital stage’s lifecycle. One of these measures provides guidance with regard to the conduct of intentional destruction of on-orbit spacecraft and launch vehicle orbital stages; the guideline, however, does not prohibit the act of destruction. Furthermore, UNCOPUOS does not have in its mandate issues that are security-related, such as the destructive testing of direct-ascent anti-satellite missiles.

7. The Conference on Disarmament (CD) has long had discussions on the threat from destructive, direct-ascent anti-satellite weapons as part of its mandate related to the Prevention of an Arms Race in Outer Space (PAROS) because a country’s decision to undertake a destructive test of a direct-ascent ASAT missile is primarily a security-related issue that clearly falls under the scope of disarmament and international security. The report from Subsidiary Body 3 on the Prevention of an Arms Race in Outer Space in 2018 highlighted concerns by CD Member States about these threats and noted that, “Preventing the development and testing of those capabilities, including those terrestrially based, is a matter of urgency for such delegations. The use or testing of ASAT could create long-lasting clouds of debris which could impair the long-term sustainability of outer space activities.”

---

<sup>1</sup> UNCOPUOS mandate, Resolution 1472 (XIV)(1959):

(a) To review, as appropriate the area of international co-operation, and to study practical and feasible means for giving effect to programmes in the peaceful uses of outer space which could appropriately be undertaken under United Nations auspices, including, inter alia,

i. Assistance for the continuation on a permanent basis of the research on outer space carries on within the framework of the International Geophysical Year;

ii. Organization of the mutual exchange and dissemination of information on outer space research;

iii. Encouragement of national research programmes for the study of outer space, and the rendering of all possible assistance and help toward their realization;

(b) To study the nature of legal problems which may arise from the exploration of outer space.

8. It is against this backdrop that the United States believes that a resolution calling on States to commit not to conduct destructive direct-ascent anti-satellite missile testing is squarely within the mandate of the United Nations First Committee.

### III. Resolution Objectives

9. Paragraph 80 of the Resolutions and Decisions adopted by the General Assembly during its Tenth Special Session devoted to Disarmament (SSOD-1) (1978) states that, “In order to prevent an arms race in outer space, further measures should be taken and appropriate negotiations held in accordance with the spirit 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.”

10. In furtherance of that objective in SSOD-1, the United States seeks United Nations General Assembly adoption of a resolution calling upon States to commit not to conduct destructive direct-ascent anti-satellite missile testing. Destructive testing of these systems is reckless and irresponsible, jeopardizes the long-term sustainability of outer space, and imperils the exploration and use of space by all States.

- The precise language of the voluntary commitment that Operative Paragraph 1 calls for is intended to meet the following objectives:
  - Meaningfully limit the deliberate creation of new orbital debris beyond what is generated through normal operations;
  - Be easily understandable without extensive new definitions;
  - Address the greatest near-term threat to space security; and
  - Not infringe on the inherent right of self-defense and the development and use of ballistic missile defense assets, including testing of those systems.

11. Importantly, the United States believes that the language in the voluntary commitment called for in this draft resolution meets the criteria for a transparency and confidence-building measure (TCBM) as contained in the report of the 2013 Group of Governmental Experts on TCBMs in Outer Space Activities (A/68/189). Those criteria are that a TCBM must:

- Be clear, practical and proven: The language used in this commitment and its goals are clear and practical – limited to destructive tests of direct-ascent anti-satellite missiles, which are the most pressing threat to space security. The text is easily understood and does not require the development of new definitions that have challenged efforts in the past to develop approaches to responding to the development of anti-satellite weapons.
- Be able to be effectively confirmed: Destructive testing of direct-ascent anti-satellite missiles is likely verifiable by many countries and commercial services, not just by the United States, and without the need for intrusive inspections. Such destructive testing would also likely be attributable.
- Reduce or even eliminate the causes of mistrust, misunderstanding, and miscalculation: Ceasing the destructive testing of direct-ascent anti-satellite missiles would reduce tension among countries given the threat these ASAT systems pose, while at the same time reducing the risk to all countries from debris generated by these deliberate tests.

12. In developing the proposed commitment—which the United States has already made—the United States decided not to include the word “debris” because we recognize that many routine space operations generate small amounts of debris, and we did not want to inadvertently hinder the peaceful exploration and use of space by restricting the creation of any “orbital debris.” Rather than add terms like “harmful debris,” which could introduce subjectivity and result in distracting arguments about whether the debris generated by a particular direct-ascent ASAT missile test is “harmful,” the United States instead focused on the behavior that we seek to prevent, not just the outcome. Indeed, a “destructive” test creates

debris in the form of fragments that are generated as a result of striking a satellite with a direct-ascent anti-satellite missile.

## **IV. Next Steps**

13. The United States believes that by pursuing this proposed resolution, the international community can take a significant first step in addressing the most pressing threat to space activities. States can uphold the international community's resolve to ensure that outer space remains free from conflict by making the commitment not to conduct destructive direct-ascent ASAT missile tests and supporting this resolution. The passage of this resolution would be a pragmatic and historic achievement in international space security governance. United Nations General Assembly approval would show that progress can be achieved in addressing space security issues, including the prevention of an arms race in outer space.

14. This draft resolution should not be seen as competing with any other United Nations First Committee resolution. It is our understanding that none of the space resolutions in the United Nations First Committee seek specifically to limit destructive direct-ascent anti-satellite missile tests.

15. As history has shown, developing a norm of responsible behavior first as a non-binding commitment can eventually lead to its inclusion in future legally binding agreements. For example, in 1963, the United Nations General Assembly approved without a vote A/RES 1884 (XVIII) which "Solemnly calls upon all States: (a) to refrain from placing in orbit around the earth any objects carrying nuclear weapons..." In 1967, similar language was enshrined in the legally binding Outer Space Treaty.

16. The United States recognizes that the commitment this draft resolution calls for is limited. It does not cover all ASAT threats. We believe that through the work of the open-ended working group on reducing space threats through norms, rules and principles of responsible behaviour, at the United Nations Disarmament Commission, at the Conference on Disarmament, and at the United Nations General Assembly, we can develop further ideas to address the many other challenges resulting from State behavior that threaten the security of space systems.

## **V. Conclusion**

17. The United States recognizes that many countries do not intend to develop direct-ascent anti-satellite missile capabilities. However, the declaratory value of such a resolution is not dependent upon whether a country is developing or has developed such a capability. By making such a commitment, and by backing this resolution, supporters contribute their voices to identifying this in the international community as an emerging norm of responsible behavior.

18. Therefore, the United States believes that this draft resolution on destructive direct-ascent anti-satellite missile tests would enhance international peace and security and is a step towards preventing conflict from occurring in outer space, including preventing an arms race in outer space. We have heard already from a number of countries that wish to join us in making this commitment, and we hope others will as well. We invite all United Nations Member States to co-sponsor this resolution and to vote in favour of it.

## Annex

### **Draft UNGA 77 Resolution on Destructive Direct-Ascent Anti-satellite (ASAT) Missile Testing**

*The General Assembly,*

PP1: *Recalling* its resolution 74/82 of 13 December 2019; 68/50 of 5 December 2013; and 62/217 of 22 December 2007;

PP2: *Reaffirming* the applicability of international law, including the Charter of the United Nations, to activities in outer space and the right of all States to explore and use outer space without discrimination of any kind, on a basis of equality and in accordance with such law, and emphasizing the importance of full compliance with such law;

PP3: *Emphasizing* the importance 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;

PP4: *Emphasizing* the need to maintain outer space as a peaceful, safe, stable, secure and sustainable environment for the benefit of all;

PP5: *Seriously concerned* about the possibility of an arms race in outer space, and reaffirming that the prevention of an arms race in outer space is in the interest of maintaining international peace and security, and promoting and strengthening international cooperation in the exploration and use of outer space for peaceful purposes;

PP6: *Noting* the report of the Secretary-General to the General Assembly pursuant to its resolution 75/36, and his recommendations that Member States study the ideas contained therein;

PP7: *Welcoming* the discussions underway at the Open-ended working group on reducing space threats through norms, rules and principles of responsible behaviours established pursuant to its resolution 76/231;

PP8: *Welcoming* the discussions at the Conference on Disarmament under Subsidiary Body 3 on the Prevention of an Arms Race in Outer Space;

PP9: *Welcoming* the ongoing work by the Committee on the Peaceful Uses of Outer Space on the implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities and the Space Debris Mitigation Guidelines;

PP10: *Determined* that practical measures should be taken to prevent an arms race in outer space;

OP1: *Calls upon* all States to commit not to conduct destructive direct-ascent anti-satellite missile tests;

OP2: *Calls upon* all States to continue discussions on practical steps that could be taken to prevent an arms race in outer space, and to establish and develop further practical steps, including transparency and confidence-building measures, to enable risk reduction in related to space threats.