

Houston Area Model United Nations Specialized Committee

COPUOS



Chair | Samuel Vollmers

Topic B: Addressing concerns of
deployment of space based weapons
platforms

Houston Area Model United Nations 51
February 5 - 6, 2026

Chair Letter

Hello delegates,

Hey Y'all! My name is Samuel, and I'm a Junior Sociology and Biology major at UH.

I joined Model UN in my last year of middle school, where it was more than a club; it was a class taught by a dedicated teacher. Joining this class and even going to an international MUN meeting is what sparked my interest in international relations and the Model United Nations.

With the rise of private spaceflight companies and the deterioration of international relations with Russia, a key member of the ISS, international cooperation on space and its peaceful use and occupation is more important than ever. I'm looking forward to the innovative approaches and solutions our delegates come up with, which is my major reason for chairing COPUOS.

Collaboration is what the UN is all about, and collaborating with your fellow delegates is what MUN is all about! Many of the friends you'll make here will remain your friends for life, no matter who signed whose proposition paper. Taking MUN seriously is very important, but so is having fun and meeting new people! I hope to see you all prepared and excited for space and its challenges.

Best Wishes and Good Luck,

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Background Information

The militarization of outer space is not a hypothetical concern but a historical reality. During the Cold War, the Soviet Union deployed the Almaz space station, a military platform equipped with a 23mm autocannon, marking the first—and to date only—confirmed instance of a weapon being fired in orbit.[1] While no comparable systems have since been openly deployed, the legacy of Almaz demonstrates that the technical feasibility of space-based weapons has existed for decades. In the contemporary space environment, major spacefaring nations are actively developing non-weapons of mass destruction (non-WMD) counterspace and defensive systems, activities that are not explicitly prohibited under existing international treaties.[2] Advances in missile defense, satellite inspection, on-orbit servicing, and planetary defense—such as asteroid

deflection technologies utilizing kinetic impactors have further blurred the distinction between peaceful and potentially aggressive space-based capabilities.[3] Although many of these systems are designed for defensive or scientific purposes, their underlying technologies may also be capable of damaging or destroying satellites, disrupting launch vehicles, or projecting force toward Earth. As access to space expands and orbital environments grow more congested, concerns have intensified that the deployment of such systems could contribute to a destabilizing arms race and undermine the long-standing principle of outer space as a neutral and peaceful domain.[4] Establishing clear international guidelines regarding the deployment, operation, and ownership of space-based systems with offensive or dual-use potential has therefore become a priority for the Committee on the Peaceful Uses of Outer Space

COPUOS). In particular, the implications of a single Member State controlling a global or near-global space-based protection or interception system merit careful consideration.

Conceptualization

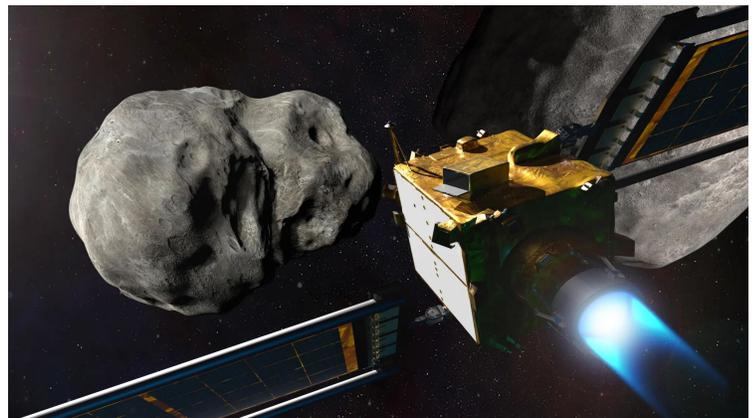
Delegates should assess whether emerging space-based capabilities enhance collective security or introduce strategic instability by concentrating power, increasing ambiguity, and incentivizing preemptive or retaliatory action. Particular focus should be placed on how dual-use technologies challenge traditional arms control frameworks.

One of the central challenges in addressing space-based weapons is the absence of a universally accepted definition. While weapons of mass destruction are prohibited in orbit under the Outer Space Treaty, conventional weapons and dual-use platforms remain largely unregulated.[5] Systems of concern may include kinetic interceptors stationed in orbit, co-orbital satellites

capable of rendezvous and proximity operations, directed-energy platforms, and space-based missile defense components.

Many of these systems are technologically indistinguishable from peaceful applications such as satellite servicing, debris removal, or scientific experimentation. This ambiguity complicates efforts to regulate deployment and raises the risk that benign activities could be misinterpreted as hostile, particularly during periods of geopolitical tension.

Space-based weapons platforms offer potential strategic advantages, including rapid global reach, persistent surveillance, and early interception capabilities. However, these same advantages create powerful incentives for rival states to develop countermeasures or matching systems. The deployment of even a limited space-based weapon system by one actor



Source: <https://science.nasa.gov/planetary-defense-dart/>



may therefore prompt reciprocal development by others, accelerating an arms competition in orbit.[6]

Additionally, the high cost of such systems—often requiring decades of research and billions of dollars in investment—means that only a small number of Member States can realistically pursue them. This concentration of capability risks deepening global power asymmetries and marginalizing states without comparable technological or financial resources.

Recent technological advances have expanded the range of systems relevant to this debate. Asteroid deflection missions employing kinetic impactors, while intended for planetary defense, demonstrate precise targeting and high-energy collision capabilities in space.[7] Similarly, autonomous rendezvous technologies enable satellites to approach and manipulate other objects in orbit, raising concerns about covert interference or sabotage. The unintended consequences of deploying such systems include

increased space debris generation, reduced trust among space actors, and heightened risks of miscalculation. A single kinetic engagement in orbit could produce debris fields that threaten satellites belonging to all states, including those uninvolved in the conflict.[8]

Topic History

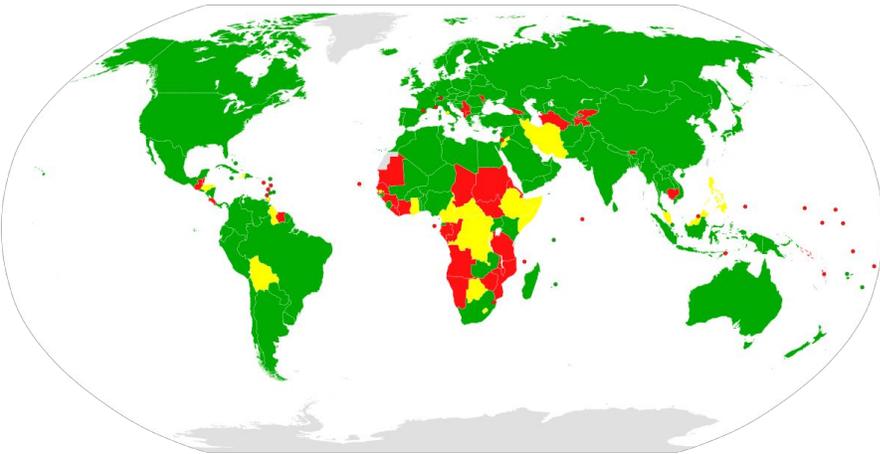
Military interest in space emerged alongside the earliest space programs. During the Cold War, both the United States and the Soviet Union explored concepts for space-based weapons, including co-orbital interceptors and orbital bombardment systems. The Almaz program represented the most direct manifestation of these efforts.[1]

The adoption of the 1967 Outer Space Treaty established a foundational legal framework by banning the placement of nuclear weapons and other weapons



Source: <https://legal.un.org/avl/ha/tos/tos.html>

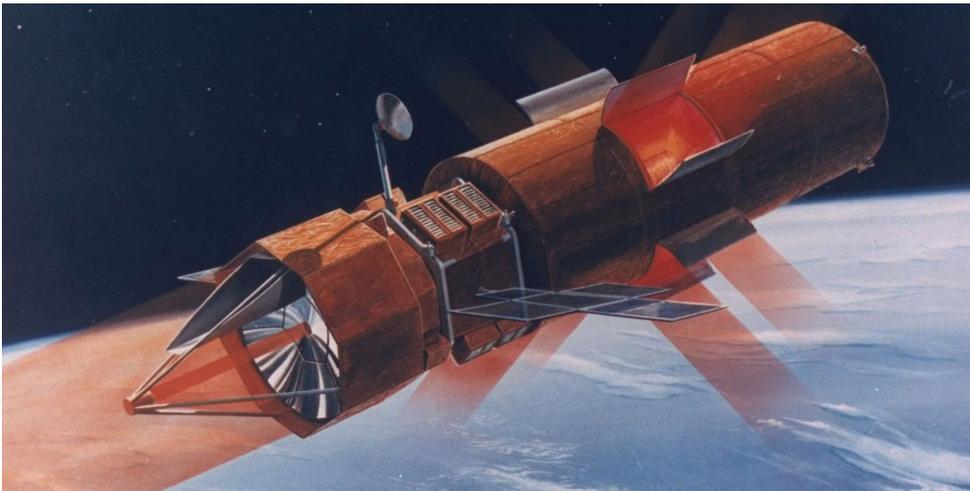




Source: https://en.wikipedia.org/wiki/Outer_Space_Treaty



Source: https://en.wikipedia.org/wiki/Strategic_Defense_Initiative

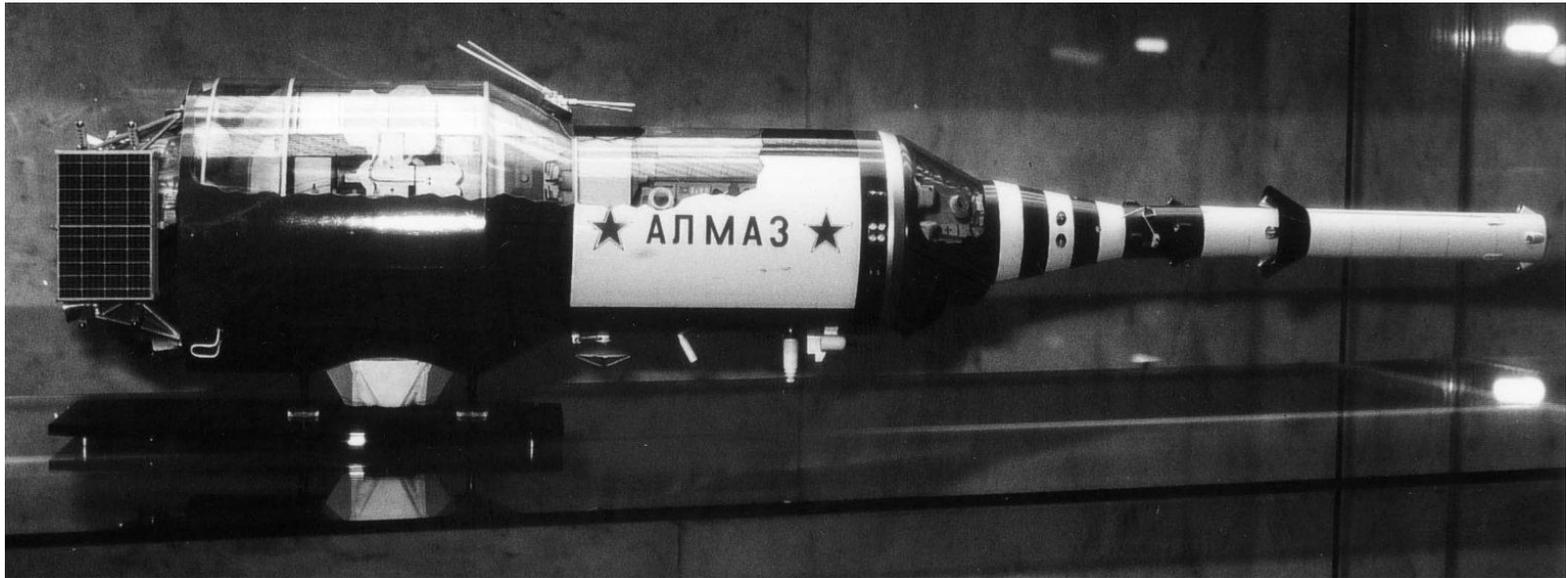


Source:
<https://www.history.com/articles/reagan-strategic-defense-initiative>

Of mass destruction in orbit. However, it left conventional weapons and many military uses of space unaddressed.[5] Subsequent proposals to expand these restrictions, including draft treaties on the prevention of an arms race in outer space, failed to achieve consensus.

In the 21st century, renewed concerns arose following kinetic anti-satellite (ASAT) tests and the increasing militarization of space doctrines. While many states emphasize the defensive nature of their programs, the cumulative effect has been growing skepticism regarding long-term stability in orbit.





Source: <https://archive.org/details/GPN-2002-000189>

Case Examples

The Soviet Almaz space station remains a defining historical case, demonstrating both the feasibility and the diplomatic sensitivity of deploying weapons in orbit.[1] More recent examples include kinetic ASAT tests that generated long-lived debris, prompting widespread international criticism and renewed calls for restraint.[8]

Planetary defense missions, such as kinetic impactor tests conducted to alter asteroid trajectories, provide a contemporary illustration of dual-use technology. While these missions advance scientific knowledge and global safety, they also highlight capabilities that could be repurposed for offensive applications.[7]

Together, these cases underscore the difficulty of distinguishing peaceful from aggressive intent in space and the importance of transparency and norm-building.



Questions to Consider

1. How should the international community define a space-based weapon in a way that accounts for dual-use technologies?
2. Should regulations focus on the deployment of systems, their operational behavior, or their underlying capabilities?
3. How can verification and transparency be achieved in an environment where intent is difficult to assess?
4. What risks arise if a single Member State controls a global or near-global space-based defense or interception system?
5. How can COPUOS promote restraint and confidence-building without inhibiting legitimate scientific or defensive research?
6. Should future governance efforts prioritize binding treaties, voluntary norms, or incremental confidence-building measures?



TOPIC APPENDIX & SOURCES

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