

*War from Outer Space:
Science Fiction or
Emerging Reality?*

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"The World Will Never be the Same! But, What New
International Realities Will We Face?"

Section 4: What is the future of strategic stability after the
START-III extension?

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ДИПЛОМАТИЧЕСКАЯ
АКАДЕМИЯ
МИД РОССИИ

1934



Iconic fiction films picture conflicts fought in outer space that one day can come true



Targeting Support



Emerging Capabilities

Space control is essential, given the heavy reliance on space systems and the rapidly increasing proliferation of missile technology and counterspace systems



Tracking for Advanced Missile Threats



Common Ground and Support



Alternate PNT



Battle Management



Space Situational Awareness



Global Surveillance

GEO

MEO

LEO

NOT TO SCALE

The need for speed

Missile comparison

SUBSONIC



Cruise missile

<Mach 0.8
0.17 miles per second

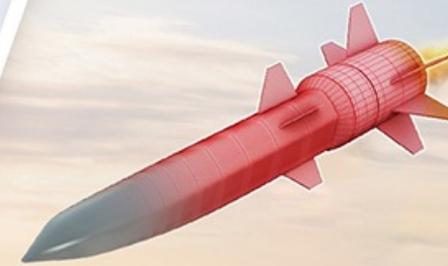
SUPERSONIC



Air-to-air missile

Mach 1 to Mach 5
0.25 to 1 mile per second

HYPERSONIC



Future missile

Mach 5 and above
>1 mile per second

Mach is the speed of sound.

Hypersonic weapons are changing the character of war and will play a huge role in the global power balance by undermining core pillars of geopolitics such as geography and technological power.

A painting depicting two astronauts in space suits shaking hands. The astronaut on the left is wearing a white suit and helmet, and the one on the right is wearing an orange suit and helmet. In the background, the American flag is on the left and the Soviet flag is on the right. A rocket launch with a large plume of fire is visible in the center. The text "Space is governed by bilateral treaties that belong to the Cold War era" is overlaid in white on the painting.

Space is governed by
bilateral treaties that belong
to the Cold War era

Space governance: multilateral treaties

- The **Outer Space Treaty (OST)**,¹ opened for signature in 1967 by U.S., U.K. and USSR, forms the basis of international space law and has become customary international law. As of February 2021, 111 countries are parties to the treaty, while another 23 have signed it but have not completed ratification.
- The **Moon Agreement** (1979) has not been ratified by any space power,² and thus it has little to no relevancy in international law. As of January 2019, 18 states are parties to the treaty.
- In 1998 Russia and China proposed a **Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT)**,³ later amended in 2014. The draft treaty was rejected by the U.S. because it fails to address a series of relevant issues: it does not provide a definition of "outer space" neither of what constitutes a "weapon in outer space" and it does not ban terrestrially-based anti-satellite systems (ASAT).⁴ France, Israel, Ukraine, and U.K. voted against, too.
- A **Proposed Prevention of an Arms Race in Space (PAROS)** treaty in 2008 would complement the Outer Space Treaty preventing any state from getting a military advantage in outer space. The U.S. has always refused to negotiate PAROS as an international legally-binding instrument as it simply mirrors the PPWT, including its failures. Therefore, the U.S. voted against the Russian's *No First Placement of Weapons in Outer Space (NFP)* resolution, thus maintaining the technical advantages from its missile defense program and other space weapons.⁴ France and U.K. voted against, too.



The space legal framework is in jeopardy

- The withdrawal by the Trump Administration from two major treaties such as the Intermediate-range Nuclear Forces (INF Treaty) in Dec. 2019⁶ and Open Skies in May 2020,⁷ blaming Russia for the decision, jeopardizes space neutrality.
- Upon request of U.S. President Biden, the New START was extended for 5 years, until Feb. 5, 2026.⁸
- Nevertheless, the unilateral withdrawal from the Outer Space Treaty by one of the major space powers is likely.⁹





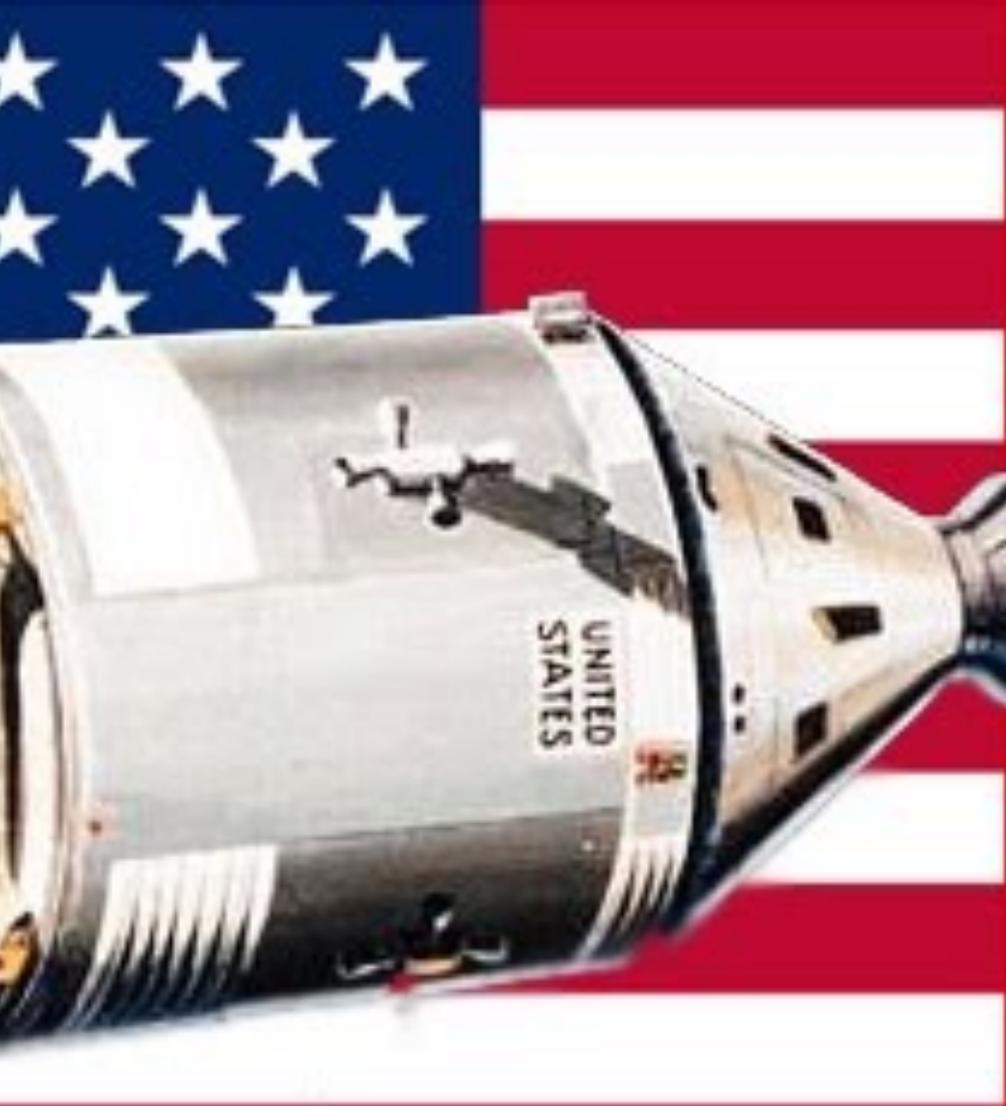
The militarization of outer space

- In 2019 space has been elevated by the U.S.¹⁰ and NATO to warfighting domain.¹¹
- So far, the international community failed to reach a solution to prevent an arms race in outer space.
- Space war is no more a science-fiction scenario; it's an emerging reality.

Pitfalls and challenges

- The U.S. Department of State finds that the New START should be extended to China.¹²
- Air Force Gen. John E. Hyten, vice chairman of the U.S. Joint Chiefs of Staff, gathers that the Russian low-yield nuclear and tactical nuclear weapons are not accountable with the New START treaty.¹³
- Lexicon and definition of terms are essential – terms such outer space, cyberspace, conventional/non-conventional, kinetic/non-kinetic, *inter alia*, are legally undefined.



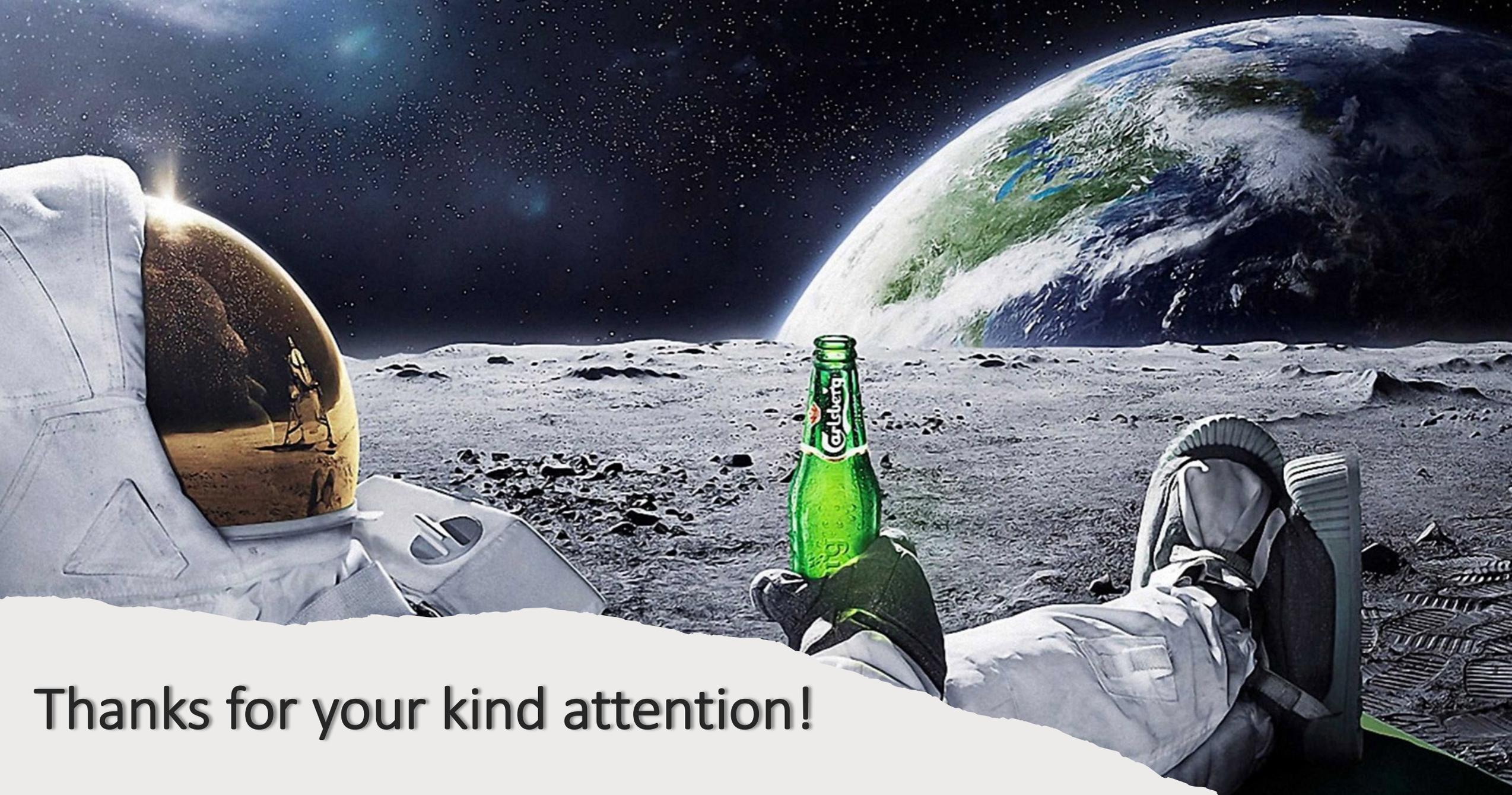


Conclusions and recommendations

- Space has become a militarized domain – and it is becoming increasingly.
- The unilateral withdrawal from the OST by one of the major space powers is likely.
- The legal framework that governs outer space is weak and rests on bilateral treaties between the U.S. and Russia, excluding rising China.
- Treaties should be multilateralized.
- The international community should find common, undisputed and unambiguous legal formulations for some terms which should be consistent with international law and international humanitarian law (or the law of war).
- The international community should strive for a legally binding international convention to avoid a star war in outer space and to prevent a conflict on Earth from the above.

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Thanks for your kind attention!

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