Disarmament I | PRAMUN XVIII | Author: Luka Landa, chair

Regulating the deployment of hypersonic missile technology

Background

Hypersonic weapons introduce multiple destabilizing effects. Traveling at speeds exceeding Mach 5, they severely compress response times, leaving early warning systems and leaders with minimal time to react. This speed and maneuverability make them capable of targeting high-value assets such as command centers and naval units, impairing an adversary's early response capabilities altogether. This pressure may lead to rushed or automated decisions, which prompts concerns about conflict escalation.

Major powers, including the United States of America, the Russian Federation, and the People's Republic of China, are actively developing, testing, or already deploying hypersonic missile systems. Other states are also pursuing their research, indicating a potential future proliferation.

The two most common types are Hypersonic Glide Vehicles (HGVs) and Hypersonic Cruise Missiles (HCVs). HGVs, launched via ballistic missiles, are capable of maneuvering mid-flight and glide at hypersonic speeds complicating interception. HCMs, power throughout flight by engines capable of producing enough thrust for hypersonic speeds, fly at low altitudes below conventional radar coverage. This means, that detecting and intercepting such missiles poses a significant challenge. Both or these types are also capable of carrying either conventional or nuclear warheads further increasing the risk of nuclear escalation, as states may assume the worst in crises.

No international treaty specifically regulates hypersonic weapons. While International Humanitarian Law (IHL) principles, primarily distinction (attacks must differentiate between legitimate military targets and civilians/civilian objects, only targeting the former) and proportionality (attacks are prohibited if the expected civilian harm is excessive compared to the concrete military advantage gained), remain applicable, they do not address strategic characteristics unique to these systems. New START, which is a nuclear arms reduction treaty between the United States of America and the Russian Federation from 2010, does not cover hypersonic weapons, and the Missile Technology Control Regime (MTCR), which is a non-binding arrangement of 35 countries that seek to limit the proliferation of missiles and missile technology, both have significant gaps in their enforcement capabilities. Creating new treaties that would effectively regulate the deployment of hypersonic missile technology is primarily challenged by geopolitical tensions, the technical complexity and nuclear use potential of such technology as well as a lack of consensus on their strategic implications.

UN involvement

The United Nations provides a central forum for discussion and analysis of hypersonic weapons. The United Nations Institute for Disarmament Research (UNIDIR**)** has conducted studies and expert discussions analyzing their strategic implications and in 2019, UNIDIR and the United Nations Office for Disarmament Affairs (UNODA**)** published a joined report on hypersonic weapons to explore potential multilateral responses. These weapons have also been highlighted as an emerging threat to international security by the UN Secretary-General.

Further discussions take place within the General Assembly First Committee, with proposals for transparency and confidence building measures, and at meetings of the UN Security Council. Even though the UN has previously established tree Panels of Government Experts on missiles that have produces consensus reports, the General Assembly hasn't had a dedicated resolution since 2008. Despite these efforts, UN action remains limited due to a lack of consensus among major powers, non-binding outcomes, and high geopolitical tensions.

Useful links

1. **UNIDIR – Hypersonic Weapons: A Challenge and Opportunity for Strategic Arms Control**
   https://unidir.org/publication/hypersonic-weapons-a-challenge-and-opportunity-for-strategic-arms-control/

2. **UNIDIR – The Implications of Hypersonic Weapons for International Stability and Arms Control**
   https://unidir.org/publication/the-implications-of-hypersonic-weapons-for-international-stability-and-arms-control-report-on-a-unidir-unoda-turn-based-exercise/

3. **UNODA - Missiles**
   https://disarmament.unoda.org/en/our-work/emerging-challenges/missiles

4. **UNODA – The Effect of New Technologies on Nuclear Non-proliferation and Disarmament**
   https://disarmament.unoda.org/en/updates/effect-new-technologies-nuclear-non-proliferation-and-disarmament-artificial-intelligence

5. **Article 36 – Hypersonic Weapons**
   https://article36.org/wp-content/uploads/2019/06/hypersonic-weapons.pdf

Questions to consider

1. What is your country's current involvement with hypersonic weapons?
2. How does your country perceive the strategic risks and benefits of hypersonic weapons?
3. What is your country's stance on arms control and regulation of emerging weapons technologies?
4. How do hypersonic weapons affect your country's national security concerns?
5. What role does your country believe the United Nations should play in addressing hypersonic weapons?

Possible Debate Questions

1. Do hypersonic weapons fundamentally undermine strategic stability, or do they represent an extension of existing military technologies?
2. How can the international community reduce the risk of miscalculation and unintended escalation posed by hypersonic weapons?
3. Should hypersonic weapons be incorporated into existing arms control frameworks, or addressed through new mechanisms?
4. What realistic role can the United Nations play in regulating or mitigating the risks of hypersonic weapons given current geopolitical tensions?
5. Is it possible to balance national security interests with collective efforts to prevent a destabilizing arms race in hypersonic weapons?

Sources

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