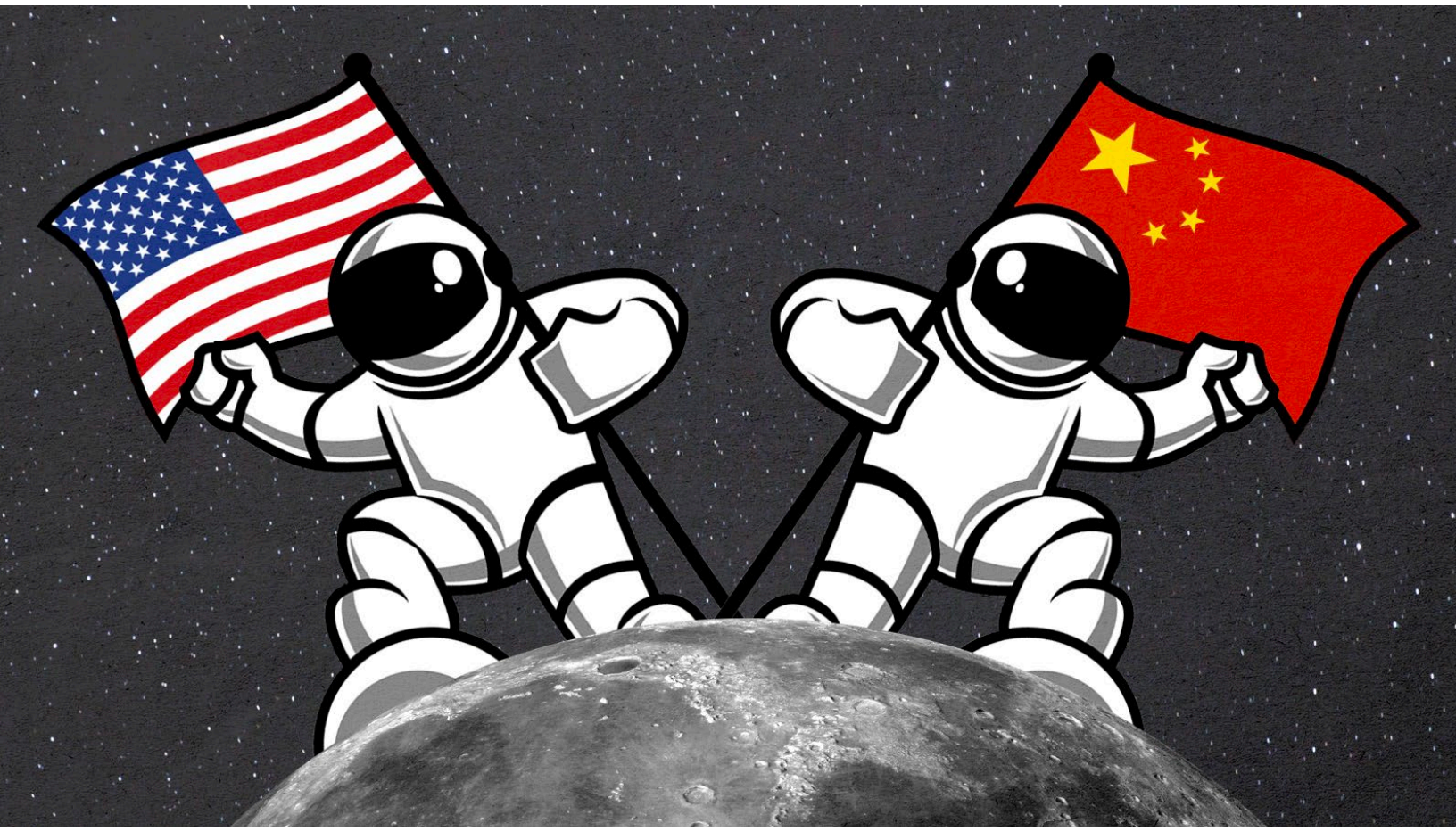
SEDS - Article on Arms Race in Outer Space:

Triangle US, China, and Russia - A Question About the Future



Current Trends in US Policy

While no weapons are currently deployed in space, the United States' strategy toward outer space is concerning. The 2006 US National Space Policy, issued by the Bush administration, stated that the US will "preserve its rights, capabilities, and freedom of action in space; dissuade or deter others from either impeding those rights or developing capabilities with the intent to do so; take those actions necessary to protect its space capabilities; respond to interference; and deny, if necessary, adversaries the use of space capabilities hostile to US national interests."

At the time, the US rejected treaties "limiting its actions" in outer space, and its space policy was firmly opposed to "the development of new legal regimes or other restrictions that seek to prohibit or limit the US access to or use of space," and insisted that "proposed arms control agreements or restrictions must not impair the rights of the United States to conduct research, development, testing, and operations or other activities in space for US national interests."

The Obama administration unveiled the revised US National Space Policy in July 2010. It specifies that the United States will promote bilateral and multilateral transparency and confidence-building measures in order to support responsible space action and peaceful applications. According to the new policy, the United States will examine suggestions and concepts for arms control measures if they are "equitable, effectively verifiable, and strengthen the national security of the United States and its allies." This new policy's phrasing suggests that it is a considerable divergence from its predecessor. However, the exact consequences of this modification are uncertain.

While asserting that it is open to discussing space-related arms control concepts and proposals, the US contends that such plans must meet "'rigorous criteria' of equitability, effective verifiability, and enhancement of the US and its allies' national security interests." The Russian-Chinese joint draft treaty on the Prevention of the Placement of Weapons in Outer Space (PPWT) would not meet these conditions, according to the US, since it is "fundamentally flawed" and would not give any grounds for negotiations to begin.

The US Department of Defense continues to invest in programs that potentially lead to anti-satellite and space-based weapon capabilities. While the technology itself is particularly controversial, it offers significant revenue prospects to companies that can overcome moral, logistical, and financial obstacles. War has always been a highly profitable business, and control of outer space leads to far more profits in conventional warfare.

According to the Air Force Space Command's Strategic Master Plan for 2003, "the capacity to obtain space superiority (the ability to use space while selectively denying it to enemies) is extremely crucial, and maintaining space superiority is an essential precondition in modern warfare." Superiority in conventional warfare is dependent on military assets in space, particularly satellites used for intelligence,

remote sensing, navigation, and surveillance, among other things. Because the US currently enforces its political will by force, protecting its space assets and disrupting others is critical to ensuring US dominance.

The major threats to the US domain

Even if some technologies able to operate in space, as the Arrow III interceptor missile system, have been made available to some Middle-East nations like Israel and other countries made notable signs of progress in space technology (India and its successful program known as "Mission Shakti", Iran, etc.) the main threats to the Western domain of the space now come from Russian federation and the Democratic Republic of China which are currently developing and have already researched vectors and a system able to undermine and challenge the current status quo.

The new frontier of space warfare should be seen as an expansion and integration of the more traditional current scenarios with the main objective of giving a strategic advantage creating a " hole " in the communication and surveillance system of the enemy.

Starting from the historical rival of the US, the Russian Federation, it is worth mentioning the advancement in satellite technology, a signal of an increased offensive capability, and in the ASATs (Anti-Satellite weapons).

In 2014 an anomalous orbit of a Russian satellite was detected by the American authorities which have classified it as a possible "Attack satellite", a specific vector able to identify and target a designed enemy satellite shutting down its capabilities creating a blind point in the American defense system.

In addition to this, the main focus of the Western intelligence is concentrated on the latest ASATs developments, specifically the Nudol system which normally operates in the Lower Earth Orbit having the ability to move between orbital paths being a threat for a wider range of satellites.

The advancements in the production of KE-ASATs (Kinetic Energy ASATs which destroy through collision the enemy satellites) are only a fraction of the current systems that have been developed by the Russian scientist which can rely on AI technologies with the aim of disrupting the communication facilities and the Western command and control systems.

The other main competitor challenging the supremacy of the West is China which in recent years has expanded its research and space activities.

To understand the degree of militarization of the space projects of the second global power is important to notice how does not exist a proper independent space agency (e.g. a Chinese NASA) which remain only a subdivision of the PLA (People's

Liberation Army) not allowing private participation, as the western agencies do, or external interferences maintaining a high degree of militarization also on the infrastructures strategic for the space program.

The first successful attempt of developing an ASAT system was accomplished in 2007 when the Chinese destroyed an old weather satellite with a missile launched from the ground.

From 2007 the improvements made regarding the missile technology lead to the creation of hypersonic missiles (model known as DF-17) able to travel at more than 6200 km/h (3850 miles/h) that in 2019 were shown to the country and the world during the national parade as a symbol of power and prestige. Missiles that have been successfully tested this year outperform the competing western vectors which have increased the global tension specifically between the 2 current global powers whose interests are clashing on the geopolitical dispute over Taiwan.

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