



US SPACE FORCE: IS COMPETITION IN SPACE INEVITABLE?

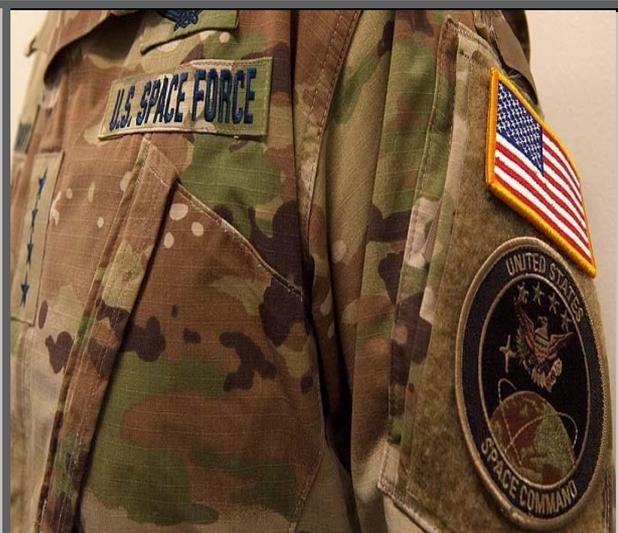
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(Views expressed in the brief are those of the author, and do not represent those of ISSI)



The US formally established the US Space Force (USSF) when President Donald Trump signed the National Defense Authorization Act on December 20, 2019. USSF became the sixth military branch of the US. Its primary function is to safeguard US assets in space and conduct operations of its own.

For decades, outer space has been used mostly by satellite for civil purposes but also increasingly for military purposes like communication with troops, reconnaissance and intelligence purposes as well as guiding munitions, drones and as part of Ballistic Missiles Defenses (BMD). The leading states in use of space are US, Russia China and now India as well. Reliance on space-based capabilities for military purposes is indispensable today. It is particularly important for great powers like the US which have military bases and assets across the world. US establishment of a Space Force is likely to spur an arms race in what is now considered as the fourth medium of warfare – outer space. This has a number of implications ranging from weaponization of space, issues of space debris, and an unchecked competition among great powers. This is likely to bring yet more instability to an international arena that is characterized by abrogation of existing arms control arrangements, onset of a new nuclear arms race, and establishment of new norms that give renewed importance to weapons systems – conventional, nuclear, and space-based.

The US has increased its defense budget and is going for modernization of its nuclear forces, as well as developing new weapons. It is all geared towards maintaining US dominance in the world. Creation of USSF is also a step in that direction. The Force has been created within the Department of Airforce. The stated purpose of USSF is that it “organizes, trains, and equips space forces in order

to protect US and allied interests in space and to provide space capabilities to joint force.”¹ It would also include developing space professionals, managing the military space doctrine, and acquiring military space systems for use by its armed forces. Some 16,000 military and civilians already working for air force would be assigned to the USSF.² The US Congress has set aside \$40 million of its \$738 million military budget (fiscal 2020) for its USSF.³

What may initially seem like a modest force and budgetary allocation may have far reaching and serious consequences. This essentially sets up structural changes that would encourage destabilizing arms race in space. It is problematic since it will create incentives within the US security bureaucracy to hype the threat of space weapons, and then build new weapons to counter them.⁴ US has already started work on offensive systems. In March 2020, USSF announced that Counter Communications System Block 10.2 was ready for combat operations. It is a ground-based communication jammer designed to block the adversary’s satellite communication. US initially deployed it in 2004 and 2014.⁵ This is the latest version of the system.

Creation of USSF is already drawing concerns from Russia and China. In a meeting with his defense officials in December 2019, Russian President Vladimir Putin said that the “US military-political leadership openly considers space as a military theatre and plans to conduct operations there.”⁶ He further expressed concern that US is fast developing military forces for space operation which was a threat to Russian interests. He said that Russia needs to develop its own space forces further in response. This is clearly set to take the US-Russian competition in space to a whole new level. China has also said that it is deeply concerned over the USSF and opposes it. Its Foreign Ministry Spokesperson Geng Shuan said that US actions are in contravention of global consensus on peaceful use of space and would “undermine global strategic balance and stability, and pose a direct threat to

¹ “US Space Force Factsheet”, <https://www.spaceforce.mil/About-Us/Fact-Sheet>

² “The Space Force is officially the sixth military branch. Here is what that means”, *Air Force Times*, December 20, 2019, <https://www.airforcetimes.com/news/your-military/2019/12/21/the-space-force-is-officially-the-sixth-military-branch-heres-what-that-means/>

³ Laura Grego, “The New US Space Force will make Space more Dangerous, Not Less”, *World Politics Review*, January 8, 2020, <https://www.worldpoliticsreview.com/articles/28452/why-the-trump-space-force-will-make-space-more-dangerous>

⁴ Ibid.

⁵ Sandra Erwin, “The US declares offensive communications jammer ready for deployment”, *Space News*, March 15, 2020, <https://spacenews.com/u-s-space-force-declares-offensive-communications-jammer-ready-for-deployment/>

⁶ “Russian president warns over expansion of US space force”, *BBC News*, December 4, 2019, <https://www.bbc.com/news/world-us-canada-45171311>

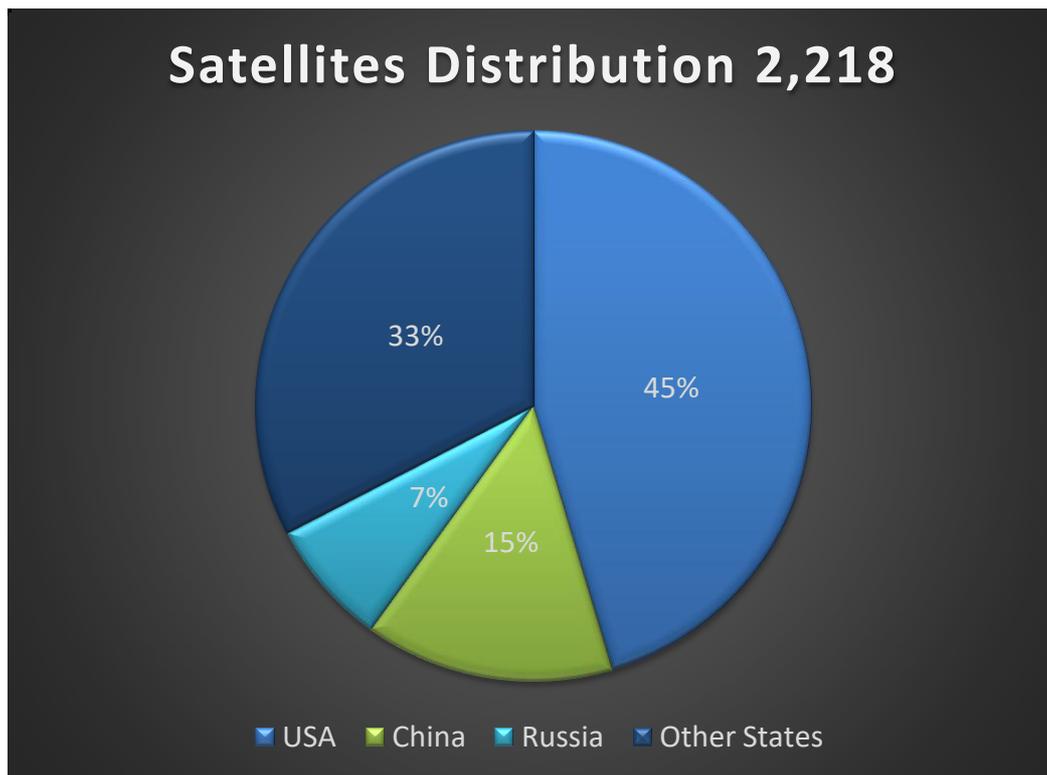
outer space peace and security.”⁷ USSF thus has the potential to embroil China in an offensive arms race in space as well.

Over the last decade or so, there has been a resurgence of development of offensive space weapons that could attack the adversary’s space capabilities. The US, Russia and China already have anti-satellite (ASAT) capabilities. Of these countries, US has the most sophisticated anti-satellite capabilities. US owns nearly half of world’s working satellites in space. Thus, it is the most vulnerable. Developing and deploying ASAT capabilities is not practical since if one country can hold another’s satellites at risk it also has hundreds of its own satellites at risk. In many ways, it works like nuclear deterrence by having mutual vulnerability to destruction. Thus, having ASAT capabilities may hold the adversaries’ satellites at risk but it does not protect one’s own satellites from attack. The best way to approach the issue is to have an agreement for mutual vulnerability of satellites.

<i>Category</i>	<i>Total</i>
Operating Satellites	2,218
US	1007
China	323
Russia	164
Other States	724
Military Satellites:	
US	189
Russia	85
China	62

Source: Union of Concerned Scientists Satellite Database, <https://www.ucsusa.org/resources/satellite-database>

⁷ “China Calls Trump’s Space Force and ‘direct threat to peace’ and ‘serious violation of international consensus”, *The Independent*, December 23, 2019, <https://www.independent.co.uk/news/world/americas/trump-space-force-china-peace-us-security-a9258296.html>



Source: Union of Concerned Scientists Satellite Database, <https://www.ucsusa.org/resources/satellite-database>

Another associated problem with ASATs or any offensive activity in space is the creation of debris which can be very harmful to satellites and space stations orbiting in outer space. According to some estimates, there are over 100 million pieces of debris orbiting around in space. Indian ASAT test on March 27, 2019 alone created 400 pieces of debris and elicited protests from Pakistan and concerns from the US and others around the world over weaponizing space and endangering space assets by creating more debris that will remain in orbit for a long time.⁸

It is imperative that outer space should not become the latest battlefield. Great powers need to make concerted efforts to regulate offensive use of outer space. There is not adequate international law to regulate weapons in outer space. Existing treaties like the 1967 Outer Space Treaty (OST) only prohibits the placement of nuclear, chemical and biological weapons in space. The UN Conference on Disarmament (CD) has been deadlocked for decades over issues of space regulation. Prevention of an Arms Race in Outer Space (PAROS) has been active in CD for decades without any success. Russia and China have repeatedly submitted drafts for arms control and PAROS over the years, and

⁸ Indian Satellite destruction endangered International Space Station: NASA", *The Express Tribune*, April 3, 2019, and "Pakistan urges no militarization of space after India tests anti-satellite missile," *Khaleej Times*, March 28, 2019

as recently as 2014.⁹ However, the US has rejected these and refuses to put forth any proposals of its own.

Thus, creating more offensive capabilities or space weapons will make space more hazardous, would perpetuate a costly and destabilizing arms race. Creation of forces like the USSF are likely to create competitions among great powers for supremacy in offensive and defensive systems. A militarily charged space environment may create incentives to 'use it or lose it' satellite-based military capabilities at times of crisis. It is also likely to lower the threshold of use of offensive space capabilities. Ultimately, this will threaten US adversaries and make them develop weapons and offensive capabilities of their own space. Such race will be costly, destabilizing, dangerous and futile.

⁹ "CD documents related to Prevention of an Arms Race in Outer Space," [https://www.unog.ch/80256EE600585943/\(httpPages\)/D4C4FE00A7302FB2C12575E4002DED85?OpenDocument](https://www.unog.ch/80256EE600585943/(httpPages)/D4C4FE00A7302FB2C12575E4002DED85?OpenDocument)