

Great Power Competition in Space **By Dr. Mir Sadat¹**

As I drafted my remarks, I googled March 14th, which happens to be a historic day. On this day in 1955, eight countries signed the agreement called the Warsaw Pact. It is fitting to have a discussion about great power competition on such a unique occasion, a vestige of post-WWII world alignment. Then, the United States and its allies faced a single conventional enemy during the Cold War. After which, the United States led the effort to globalize that international order. America did not want the system disrupted by mainly the Soviet Union, the Eastern Bloc, and China - if they were going to be part of the system, then they would have to follow the established rules-based order.

The attacks of September 11, 2001 marked a dramatic shift from that momentum of the 1990s. It brought about a new global security posture for the international community and global governance; and diplomats were in full force sprinting at the United Nations and capitals around the world, not just for protection purposes, but for figuring out the new rules of the road. The military was drawn into a new era of conflict. We never thought about a platoon leader – the soldier, sailor, airman, or marine - becoming the face of American diplomacy especially on the frontlines. However, we saw that in Afghanistan, Iraq, and Djibouti, and we see that even today. Some of us particularly remember the 2000s because the markets started crashing, our 401K's started dwindling, and our house prices plummeted. This period of uncertainty started at the hands of not a state actor - not Russia or China - but a nefarious non-state actor, Al-Qaida, which had true believers in cells spread around the world. We vowed to concentrate all our energies to

¹ Mir Sadat, PhD, is a Director of Defense Policy and Strategy at the U.S. National Security Council. Previous to this assignment, he served as a Space Policy Strategist with Chief of Naval Operations and a Space Operations Officer with U.S. Tenth Fleet. His opinions are his own, and do not necessarily reflect the official policy or position of the U.S. National Security Council or the U.S. Government.

mitigate the impact of these violent jihadi terrorists. So, our posture became one of leveraging our asymmetric warfare capabilities: we promised that we will find them no matter in what cave they hid, we will get to them, and we did. This was all in the pursuit of restoring global, political, and economic security.

The 1990s push for an interconnected global market came to an end after the 2007 market crash. Since then, the prospect of bringing Russia or China into a world order in which we were the most powerful player has diminished. And thus, during the last couple of years we have been talking about the return of great power competition. And, if you read the National Security Strategy (NSS) that my organization published in 2017, you will see this emphasis. The ship is fixing its bearings because we have been focused overly on non-state actors while state actors are not given adequate attention. When discussing great power competition, of course, we think about China, the South China Sea, and other maritime disputes. We also think about Russia, Europe, Eurasia, and about the fragmented fault lines across sections of the Middle East, Africa, and South Asia where these great powers converge.

But nowhere is great power competition as ambiguous and nebulous than in space. There is a great power competition in space, and thus space figures prominently in the 2017 NSS. The NSS says the United States considers unfettered access to and freedom to operate in space to be a vital interest. I interpret vital interest to be something for which you will fight. The NSS further elaborates that any harmful interference with or attack upon critical components of our space architecture that directly affects vital U.S. interests will be met with a deliberate response at any time, any place, any manner, and in a domain of our choosing. Besides space - land, air, sea are the other three natural domains while cyber is man-made. Communications, financial networks,

military and intelligence systems, weather monitoring, navigation and more have components in the space domain. In short, the NSS calls for advancing space as a priority domain.

In contrast to its critics, there is a need for a United States Space Force, this is the right time to build that force, and the executive branch proposal on the Hill is the most feasible given our current budgetary constraints. Facing Congress right now is the decision to authorize and fund the nation's space warfighters. This would equip them with the necessary legal authorities, equipment, and support so that warfighters could practice and operate with freedom in space to deter attacks, protect the terrestrial force's dependencies on overhead capabilities, safeguard our military and commercial assets in space, and when necessary, defeat hostile space threats.

Currently, just in the military realm, we have little less than about 100 operational satellites. The United States cannot wait for another 9/11 in space. And we definitely cannot wait for perhaps a full-on Pearl Harbor-style attack on American satellite constellations - to convince our U.S. decision-makers that it is time to create a U.S. Space Force. That would be akin to waiting on World War Two (WWII) to convince leaders to build a U.S. Air Force. Should we ever come to conflict - the additional 74 Air Force squadrons or the 355-Navy ships our nation desperately needs for future contingencies could become largely irrelevant by our adversary's space activities.

America's space enterprise, governance structure, and the way we organize was constructed on the strategic environment of the Cold War. A bi-polar environment that no longer exists. In this new era of multi-domain warfare, our competitive margin of dominance is shrinking. No longer are only troops and hardware going up against each other. Militaries are using hybrid land, air, sea, space and cyber capabilities in conflict. So, our space systems support the terrestrial forces, but actions in space also affect our future conflicts here on Earth.

No amount of wishful thinking can make our adversaries, their capabilities, or our shortcomings go away. The first rule of strategy is to always be realistic. Military strength in any domain should be about avoiding war through soft power such as diplomacy and the deterrence of hard power by making any attack undesirable and costly to the adversary. The post-Cold War assumption that space would remain uncontested, and that the United States and our allies would have dominance, is no longer valid.

It is time to invest in space by resurrecting a U.S. Space Command and creating a new military branch: the United States Space Force. These two different things are sometimes confused, but they are complimentary and dependent initiatives. Establishing a combatant command such as U.S. Central Command or U.S. Special Operations Command, the United States Space Command will be dedicated to space and focused on joint warfighting operations of this vital domain. When this happens, the question is, what will be the international rules and acceptable norms and behaviors? Topics for diplomats, the military, and policymakers to figure out.

U.S. Space Command, when it comes into being, will have assigned Navy, Army, Air Force, and Marine Corps military and civilian personnel, who will support the command with their terrestrial-focused capabilities. In fact, some of these personnel deal with space as a collateral duty within their own branch of service. Therefore, without a Space Force, there will be no one solely dedicated, responsible, or accountable to recruit, train, develop doctrine, or equip space warfighters.

A separate Space Force will develop space professionals of all grades specialized for their specific duties and responsibilities, rather than space professionals focused only on the space problem sets facing their existing service. Even in the most space intensive service - the

U.S. Air Force –space operations officers and space operations enlisted are treated as interchangeable by rank and across the full spectrum of space duties. Across the rest of the operational Air Force, navigators, weapons controllers and pilots are not considered interchangeable officers. In fact, pilots are not even interchangeable by the type of aircraft they fly. Having the U.S. Space Force will ensure that space operators are not be valued any less than operators in other domains.

Reflect for an instance that the service created to think about air warfare was built after WWII instead of before. The U.S. Air Force was created in 1947 to organize, train, and equip for air warfare. Due to the success of the U.S. Air Force, no ground troops have been killed by enemy-manned aircraft attack since the end of the Korean War in 1953. How many troops were lost in WWII because we focused on the familiar land and sea domains, and turned a blind eye to emerging threats and opportunities in the air? Consider that it may have been better to build the Air Force in 1927 - before WWII - than in 1947. How many troops, civilians and satellite assets will we lose if in 2019 we delay the creation of the service to think about space warfare until after the next war?

History tends to be very cyclical. Conflict is inevitable, and space no longer is a sanctuary for commercial, civil, and military entities. We can either prepare and posture and do it the right way, or we can be unprepared when conflict comes to us. What does that mean for space diplomats, the military, and policymakers?

The United States cannot afford to fight a WWII-style conflict - knowing that the operational battlespace has exponentially expanded to include space. An opponent who controls space may hold our population centers and our deployed forces at risk, without ever taking decisive terrestrial action. For instance, you cut off a Navy ship's satellite communications and

navigational control, then all you have is a vessel in the middle of the vast Pacific Ocean. How many Navy sailors know celestial navigation these days? To keep the peace and to win the next war, we must outthink our adversaries. That means recruiting the right people to think about the problem. We must put them in a context that does not distract them from solving the problem, which is space.

The existing services have other priorities, and space is just one more problem that remains outside their area of expertise. We need a separate service dedicated to this domain-based problem set. If properly designed, the U.S. Space Force can achieve greater integration, overcome the existing paralysis of risk aversion, leverage our new technology base, and unify the efforts of disparately diverse Defense Department space elements.

With the U.S. Space Force, space and terrestrial-focused military services will provide the necessary forces for U.S. Space Command to ensure unfettered access to, and the freedom to operate in, space. U.S. Space Command will provide vital effects and capabilities to joint and coalition partners during peacetime and across the spectrum of conflict. Just as the U.S. Navy stands the watch to ensure that we can freely navigate the world's seas, America must now ensure the freedom to navigate through space. If we continue to delay the creation of a U.S. Space Force until it is too late, we jeopardize the comforts of our American way of life; the lifeline of our economy; the enabling of our national security assets; and execution of priorities in the South China Sea, Eurasia, the Middle East, and elsewhere.

We must not wait until space war damages our comforts of life to adapt our posture. With each passing day, great power competition becomes ever more the norm, and potential adversaries become more competent and capable in space. Like any land and maritime conflicts, America will never go to war without its allies, and this is especially true in space. In space, we

may partner with, protect, and inform our allies. In fact, in the civil and commercial sector, we can think about satellites as being either hostile or non-combatants on a battlefield.

Policymakers, diplomats and the military will face the daunting challenge of differentiating between friend and foe.

Now, let me share with you this story that recently happened involving an Indian satellite test. In March, a squadron of Air Force officers stationed outside of Denver, Colorado detected and warned of a missile launch coming off of the coast of India. The missile flew for three minutes before making impact with an Indian military observation satellite about 200 miles above the earth's surface. The Combined Space Operations Center just north of Santa Barbara, California began tracking and cataloging about 270 pieces of space debris, the smallest being about 4 inches in diameter – most of which burned up in atmosphere. India's space program started in the early 1960s, but now they are the fourth nation ever to demonstrate anti-satellite (ASAT) capabilities. By no means will they be the last nation – expect more nations in the future which will increase risk of mishaps in space.

To put that in perspective - In 2007, the Chinese conducted an ASAT test when it destroyed one of its dead weather satellite, which created a debris field of almost 3400 pieces – more than half of which are expected to be still in orbit in 2027. The United States tracks all space debris, and ironically when any of 2007 ASAT debris potentially interferes with Chinese satellites, it is our military than warns the Chinese of that fact.

Right now, we have a competitive advantage, but that advantage is rapidly eroding as peer and near-peer competition ascend into space with advanced technologies. We need to think about space before we lose it. To conclude, let me propose that like any branch of the military, the stick is always the insurance policy. Fire insurance policies never payout if there is no fire.

But that does not mean we do not pay our fire insurance, or that we wait until a fire to buy some. The United States Space Force is just that insurance policy to safeguard our modern comforts of life, America's 20 trillion dollar economy, and U.S. national security. Just like fire insurance, you may not think we need it today, but the U.S. Space Force is precisely needed for the challenges of tomorrow.