



Army Space Update



1st Space Age: 1957-1991

- Sputnik to Soviet Union collapse

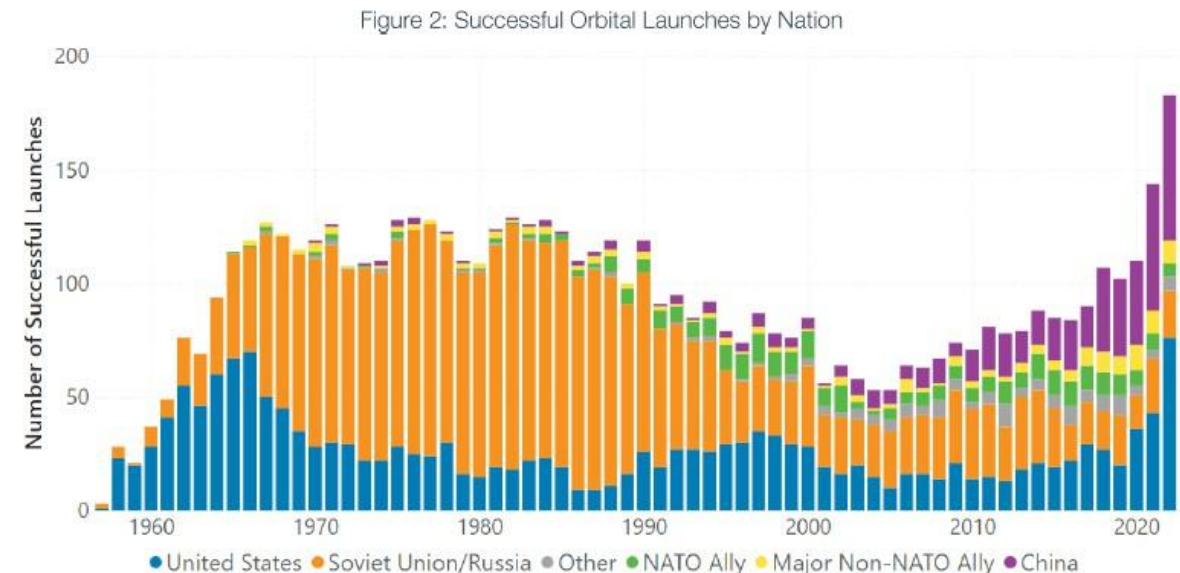
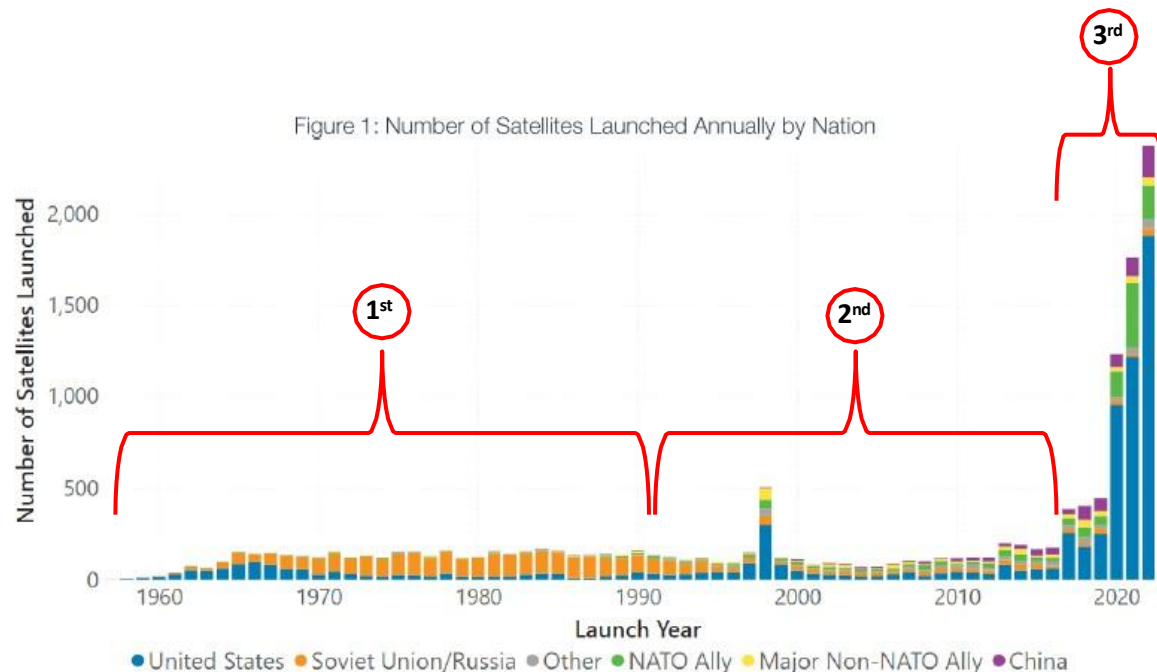
2nd Space Age: 1991-2016

- Diversification and commercialization

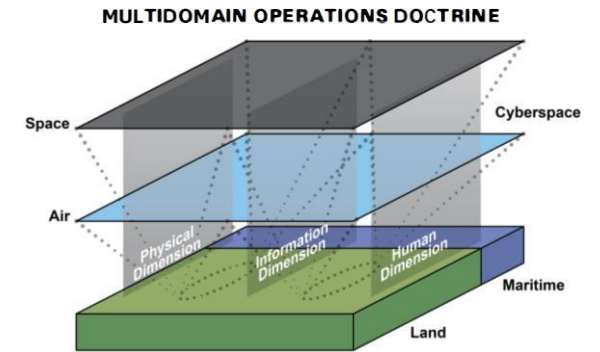
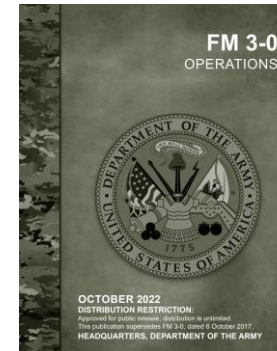
3rd Space Age: 2016-present

- Rise in commercial mega-constellations

88% of all satellites are now
pLEO commercial



“The Department of Defense is embarking on the most significant transformation in the history of the U.S. national security space program.” Defense Space Strategy June 2020



AirLand Battle doctrine takes a nonlinear view of battle. It enlarges the battlefield area, stressing unified air and ground operations throughout the theater (1982). The “extended battlefield” within the AirLand Battle concept helped visualize the battlefield of the time—a battlefield now including the space domain (2022).



Army Space Vision Supporting Multidomain Operations

The Army will integrate friendly joint and coalition space capabilities and interdict adversary space capabilities in support of ground force commanders.

The Army's next fight will occur across multiple domains. Successful operations in and through the space domain will be critical to our success. Space has become more important as both enabler and dependency to our Warfighting. Commanders at all echelons have access to, rely on, and can be observed by the space-based assets of allies and competitors alike. Commanders must understand that space capabilities start and end on the ground and be fully aware of their importance in planning and operations. This means that understanding commercial, military, and scientific space platforms directly correlate to our ability to conceal and protect friendly ground forces across the entire battlespace, from home station to assembly areas, and from assembly areas to objectives. Simply put, we will be operating under constant surveillance and must invest in the knowledge and forces to counter threat space systems and enable our own space systems.

Army space professionals, at echelon, will lead the effort to increase understanding and integration of friendly joint and coalition space capabilities into our operations and activities while simultaneously interdicting the adversary's use of space based, and space enabled capabilities. To do this, highly trained Army Soldiers and Civilians must be organized, have the right resources, kit, authorities, and expertise to:

- Integrate friendly joint, coalition, and commercial space capabilities in support of all Army Warfighting Functions to include positioning, navigation, and timing; deep sensing; beyond line-of-sight communications; force tracking; environmental monitoring; space domain awareness; and geospatial information.
- Interdict adversary space capabilities by delivering necessary fires and effects at echelon to protect friendly forces from observation and targeting by counter-satellite communications, counter-surveillance and reconnaissance, and navigation warfare operations.

To fight at echelon in and through space means employing the next generation of tactical terminals to leverage multi-orbit satellite communications services and access space-enabled tactical intelligence, surveillance, and reconnaissance platforms to meet deep sensing requirements. By fusing the data from multiple space-based sensors, in coordination with the intelligence community, the Army can deliver targetable intelligence to enable long-range precision fires, movement and maneuver, and command and control. These space capabilities, layered with stratospheric, high-altitude balloons and long endurance, semi-autonomous fixed-wing aircraft, can provide redundant and complementary capabilities for the theater to increase resiliency of the U.S. and Allied space architecture in a denied, disrupted, intermittent and limited bandwidth environment. Mobile ground and aerial platforms demonstrate the potential to deliver space interdiction fires to deny adversary access to space capabilities, and disrupt their command and control, navigation, targeting and intelligence collection. Forward-postured Multidomain Task Forces, employing Army space interdiction forces alongside cyber operations and electronic warfare enablers, will disintegrate adversary anti-access and area-denial systems. Simultaneously, Theater Strike Effects Groups can synchronize and deliver Army space interdiction fires in support of theater targeting objectives.

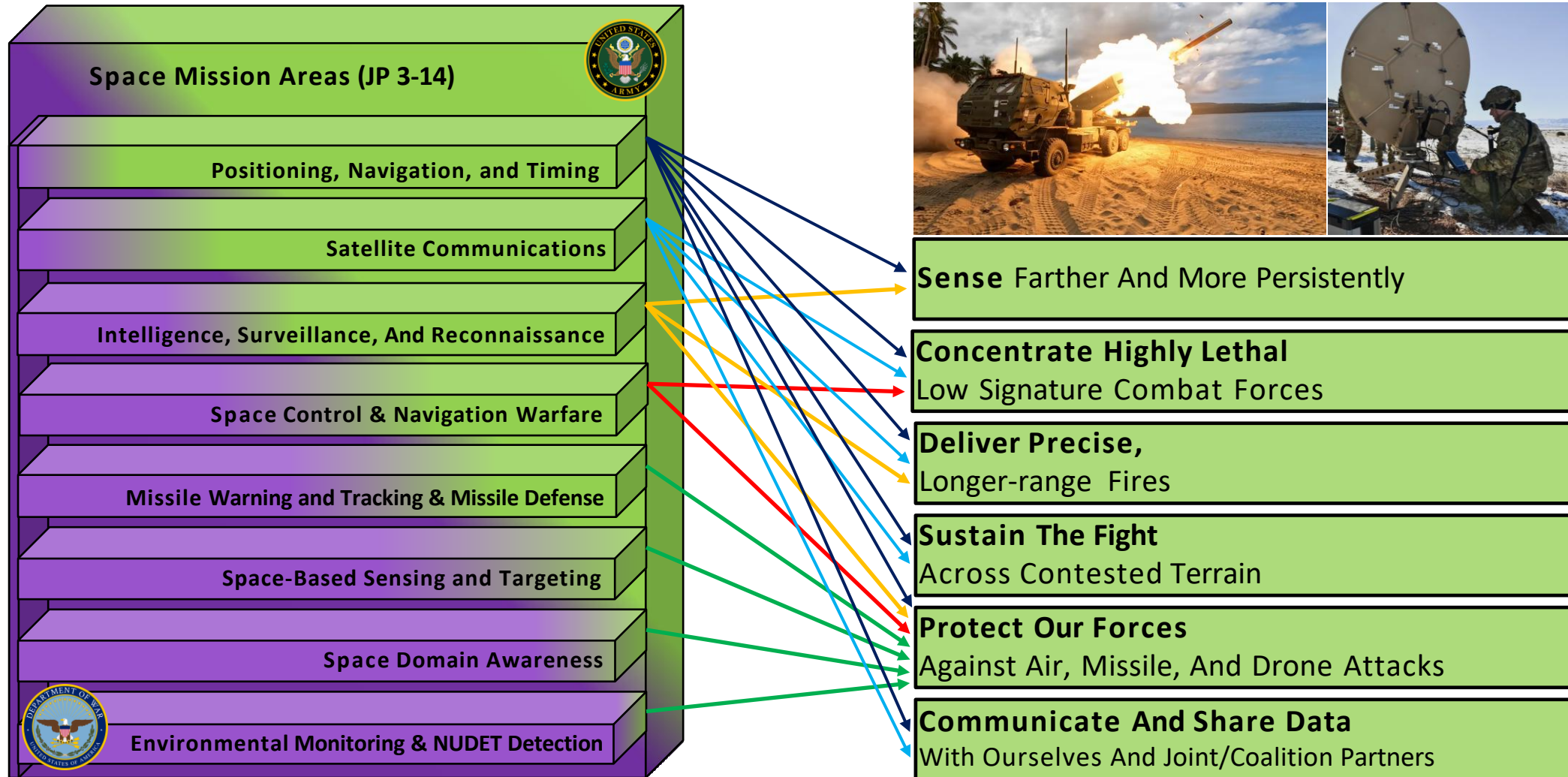
The Army Space Vision directs the military service to:

- (1) integrate friendly joint, coalition, and commercial space capabilities
- (2) interdict adversary space capabilities to protect friendly forces

These two roles and responsibilities are critical components to multidomain operations, and enable the Army to effectively shoot, move, communicate, and survive on a 21st-century battlefield.

The vision concentrates the scope of Army space operations to its core interests while acknowledging the Space Force mission to achieve space superiority and provide mission-critical space capabilities.





Others:

- Spacecraft Operations & Human Space Flight Operations



Discussion