



SUSTAINING SPACE SUPERIORITY

USSPACECOM J8 Memo to Industry – 2nd Edition, January 2022

For over half a century, the United States has maintained a strategic advantage by effectively projecting power enabled by sustained space superiority. However, recent events have revealed our competitors' rapid space advancements and their clear intent to deny unfettered access to our capabilities in the space domain.



Space's role underpinning all instruments of national power and providing enormous economic, scientific, foreign policy and national security advantages can no longer be taken for granted. Our competitors recognize the advantages afforded by our space systems and seek to change the dynamic by developing or refining their own space and counterspace capabilities. These same competitors have reorganized their military forces to facilitate joint, multi-domain strategies and set the conditions to achieve space, cyber, and electromagnetic

spectrum dominance. They are determined to match or exceed the United States' capabilities in the space domain and are realizing that vision at an alarming rate. Responding to this evolving landscape demands that the Department establish a new trajectory—far different from the course that developed and fielded our legacy space capabilities—to retain space superiority. To this end, the National Space Security Enterprise must fundamentally change to effectively support U.S. national security objectives—developing new processes and re-defining authorities that enhance our ability to compete in an increasingly contested space environment on operationally relevant timelines.

SHIFTING THE PARADIGM

Cumbersome bureaucracy, outdated policies, and acquisition timelines that deliver at the speed of irrelevance hinder our ability to compete in space. We can no longer afford to be constrained to a paradigm that directs specified solutions over a span of decades while our competition moves at breakneck speed—unconstrained by ethics or international norms—to bring new capabilities to bear. USSPACECOM recognizes these untenable barriers and our unique responsibility to drive the enterprise in a new direction in response to the rapidly evolving strategic environment.

“Although we are making marginal progress, the Department of Defense is still unbelievably bureaucratic and slow...”

Gen John Hyten (Ret), 11th Vice Chairman of the Joint Chiefs of Staff

DEFINING THE NEED

Last year's USSPACECOM J8 industry engagement memo introduced the command's priority challenges with a focus on establishing the baseline requirements to function as an effective Combatant Command. The primary challenges remain: establish the required Battlespace Awareness and effective Command and Control systems to accomplish our Protect and Defend mission. This memo builds upon last year's elements with two notable additions: Electromagnetic Battle Management and Mission Partner Interoperability—recognizing additional challenges as USSPACECOM continues to mature its operational capabilities and posture.

As we build the USSPACECOM for tomorrow, the vision is to move towards layered and resilient architectures, exploiting opportunities to leverage existing sensors and data sources, and expending budgets in a fiscally responsible manner. To retain the competitive edge requires the capability to fight at speed and USSPACECOM must embrace advanced technology such as machine learning and artificial intelligence to ensure data superiority and agility across all domains. Additionally, the Command is committed to clearly and consistently advocating for the training and test capabilities needed to build a cadre of trained and ready personnel. Through increased transparency and closer collaboration with industry on priorities and requirements, we will leverage American strength and ingenuity to deliver decisive space capabilities faster.

BUILDING THE TEAM

USSPACECOM J8's commitment to embark on a different path remains steady. Success is not in the traditional development and acquisition approaches of the past, but rather in creating a transformative environment of innovation and cooperation, driving toward shared interest and goals. To this end, we look to industry to help inform us as we evolve from the traditional ways of doing business. To mitigate risk to Joint and Combined Force military operations, it is imperative that we build an effective team who understands the stakes of failure and the risks of near term decisions that lead to long-term operational shortfalls. This means everyone on the team—those writing requirements, the acquirers, operators, and

CHALLENGES & PRIORITY NEEDS

Battlespace Awareness

- Commercial Sensor Access & Integration
- Solutions for Data Gaps & Ambiguity

Command and Control

- Assured & Unified C2 Across the Spectrum of Conflict
- Ability to Synchronize & Deliver Decisive Effects

Electromagnetic Battle Management

- Electromagnetic Spectrum Superiority Supporting Multi-Domain Operations
- Tasking & Management Systems

Mission Partner Interoperability

- Cyber Secure Data Integration & Cross Domain Solutions
- C2 & Information Sharing Across the Full Range of Military Operations

Modernizing for Resilient Architectures

- Scalable Combat Options
- Adapting to Evolving Challenges within the Space Area of Responsibility

Data Superiority & Agility

- Data-based Analytics, Machine Learning, & Artificial Intelligence
- Cyber Operations & Spectrum Superiority

Foundational Requirements

- Tools such as Modeling & Simulation
- Space Training & Test Ranges (Both Physical & Virtual)
- Trained & Ready Personnel

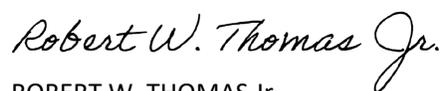
providers—are fully cognizant of industry capabilities so that we can push the space enterprise to deliver requisite capabilities on responsive, operationally relevant timelines, capitalizing on our nation’s ingenuity and innovation.

We also recognize the need to expand opportunities to partner with industry more closely, especially as we balance peacetime needs with surge requirements. Since publishing last year’s memorandum, we’ve engaged with numerous industry partners individually and collectively at the NDIA’s Space Warfighting Industry Forum and the Aerospace Industry Association’s USSC Industry Priorities Engagement hosted classified conference call. All of these engagements provided industry with a greater understanding of our unique Combatant Command warfighter requirements and USSPACECOM increased awareness of industry’s ability to meet our needs. We welcome continuing and expanding these engagements over the coming year.

We are also diligently investigating ways to bring industry into experiments, demonstrations, and exercises that expand our technical understanding while also informing both industry and government investments in key technology development. As the national security space enterprise continues to reorganize to become a more effective force, the common theme is that these organizations will be lean and agile. The capabilities we need must support that lean and agile space enterprise.

CHANGING OUR FUTURE

Determination alone will not result in the changes the enterprise needs—there will be challenges as we shift direction that will require a sustained commitment to the vision we propose. We invite industry to challenge our preconceived notions of what is possible and not let complacency or bureaucracy hold us back. We must evolve past the historical, relatively independent, transactional relationships between industry and the DoD and work toward building a truly effective team—a partnership with shared interests and goals—to preserve, protect, and defend the space domain today and for the future.



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