

# A Clean Sheet Approach to Space Acquisition in Light of the New Space Force

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## ISSUE

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Space is becoming increasingly competitive, with potential adversaries rapidly investing in new space capabilities with increasing technical expertise. At the same time, a revolution in space capabilities is being driven by both nontraditional suppliers—new commercial entrants to the space arena—and traditional defense contractors. As the U.S. Space Force (USSF) is stood up in response to the threat, the new service has a unique opportunity to take advantage of the widening spectrum of commercial capabilities and create new management processes to respond to the challenge. To support this effort, Department of the Air Force (DAF) leadership asked RAND Project AIR FORCE to develop a “clean sheet” acquisition approach designed around the new service’s unique mission and calling.



## APPROACH

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We intentionally focused our research on internal USSF acquisition, acknowledging that there are multitudinous external interfaces—e.g., the other services, the Missile Defense Agency, and the Intelligence Community (IC). These recommendations are derived from our analysis of the literature combined with interviews with more than 45 current and retired senior leaders and space acquisition experts, most with several decades of acquisition and/or operations experience.



## FINDINGS

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The new acquisition vision links to several USSF features that are either unique—setting it apart from the other services—or particularly pronounced. Most notably, USSF will be significantly smaller than any other military service, by more than an order of magnitude. This means that there will be fewer people for processes that traditionally have been manpower intensive, including acquisition. A smaller service offers the opportunity for increased agility and the reduced bureaucracy resulting from a flatter organization and a shorter chain of command. Second, USSF is highly reliant on technology to develop and sustain its joint warfighting capabilities, perhaps even more so than other services. USSF warfighters are technology operators and have much in common with space acquirers. This dependence on technology necessitates USSF having a close, trusting, collaborative relationship with industry.

A service having technology as a foundation for warfighting warrants an acquisition approach focused on ensuring that the required capabilities are available when needed. To be effective in this context, acquisition processes must be rapid, agile, and, above all, threat informed. We offer a new “clean sheet” acquisition vision for the technology-centric USSF—*acquisition as a warfighting capability* rather than a support function. The additional benefit to focusing on the execution of an effective capability is that, although potential adversaries can exfiltrate weapon systems technology, effectively copying an approach based on a strong culture is a much bigger challenge. Also, a new space acquisition culture enabled by increased agility and a shorter chain of command, integrated with space warfighting, will enable threat-focused, innovative space capabilities to maintain and strengthen the United States’ advantage in space.



## RECOMMENDATIONS

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To provide threat-informed capability on an operationally viable schedule within cost constraints, the clean sheet approach of acquisition as a warfighting capability incorporates these features:

- **Remove the seams traditionally separating operators and acquirers** so all understand both technology and operations; operators will know how technology flows and changes, and acquirers will know how the technology is implemented and used in the field.
- **Create an adaptive technical architecture**, based on warfighting doctrine and concept of operations, to provide a framework for decisionmaking, countering the threat, and a road map for innovation.
- **Establish a single space acquisition decisionmaker** for flexible management of the enterprise—focusing resources on the highest priorities, driving capability synchronization, and radically delegating to empowered subordinates.
- **Ensure a workforce consisting of experts** cultivated through selective recruiting, assignments, training, and promotions to be risk tolerant, flexible, collaborative, and enterprise-focused—providing capabilities, not merely systems.
- **Build internal and external outreach mechanisms**, including information-sharing and metrics, that emphasize strong relationships and mutual trust within and across the U.S. Congress, the U.S. Department of Defense, USSF, the IC, other federal agencies, and industry.
- **Foster a trusting, collaborative relationship with industry**—for example, by providing industry with a technology road map that includes (1) *innovation on-ramps* to accept emerging technology or address changing threats and (2) *divestiture off-ramps* for obsolete capability.

This clean sheet vision for acquisition embodies a systematic, comprehensive, and holistic approach rather than providing a menu of items from which to pick and choose. USSF needs the flexibility and authority to invest in all of these changes across the enterprise—and Congress will need to provide the required authorities, including enhanced funding flexibility to allow for investments and disinvestments as the architecture evolves. All of this can and should be done holistically and intentionally to create the right culture and ensure effective change. The first Chief of Space Operations offered a vision for change at the 2020 Air Force Association Air, Space and Cyber Conference: “If we get this right, we will be the envy of the other services, because we are not tied to business of the past.”



## PROJECT AIR FORCE

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