

ASSESSING THE U.S. SPACE FORCE BUDGET REQUEST

FOR FISCAL YEAR 2024:

PERSPECTIVES FROM NATIONAL SECURITY SPACE EXPERTS



**NATIONAL
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COMPILED BY THE MOORMAN CENTER FOR SPACE STUDIES

NATIONAL SECURITY SPACE ASSOCIATION

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Dear Colleagues:

On March 9, President Biden released the proposed Federal budget request for fiscal year (FY) 2024 beginning on October 1, 2023. The overall request of \$30.3 billion for the U.S. Space Force (USSF) was touted by Department of Defense (DoD) officials as the “largest space budget ever”. Indeed, were the proposed budget to be enacted without change, it would represent a sizable increase in funding for national security space activities over the amount appropriated for FY 2023. This continues a steady rise in funding proposed for new proliferated architectures in low Earth orbit (LEO), a greater emphasis on resiliency and space control to counter Russian and Chinese space and counterspace threats, a more frequent launch cadence, and efforts to bolster the cybersecurity of national security space systems.

Yet, despite the sizable increase in the FY 2024 budget topline, the proposed USSF budget for the combined RDT&E and Procurement accounts is projected to go down in fiscal years 2025 and 2026, raising questions about whether critical programs will be sustained in the outyears. Indeed, Congressional appropriators have pointedly questioned whether Space Force leaders have effectively aligned the scope of programs being proposed with planned budgets. In addition, while the size of the budget request matters, equally important is how those funds will be allocated – is the Space Force proposing to spend funds in the right areas? Here, continuing shortfalls exist in areas such as ground systems, space domain awareness, and commercial space offerings. Finally, it is worth noting that the release of the President's budget request is merely the first step in a long, arduous process on Capitol Hill. As of this writing, it is unclear how spending on national defense will fare in the perennial debate in Congress over “guns versus butter”.

This compilation of the views of distinguished national security space experts helps shed light on various important aspects of the President’s budget submission. I am grateful for the time Marc Berkowitz, Kari Bingen, Steve Kitay, Scott Pace, John Paul Parker, JR Riordan, and Mandy Vaughn devoted to this project and the insightful commentary they have provided.

The National Security Space Association’s Moorman Center for Space Studies is proud to be at the forefront of efforts to shed light on critical national security space topics. For example, the Center recently published timely and actionable analyses entitled “*Redesigning Space Forces for Deterrence and Warfighting*” and “*Leveraging Commercial Space Capabilities for U.S. National Security*”. Additionally, the Center regularly conducts *SpaceTime* interviews to provide a forum for Government officials to share their plans and activities and solicit feedback from industry. And the Center is proud to help facilitate a much-needed dialogue between private sector representatives and key Government officials on a variety of national security space topics, including protecting and defending commercial space systems, classified intelligence briefings on foreign space and counterspace capabilities, and more.

The Moorman Center will continue to play an active role in helping build bridges between the U.S. Government and the private sector in support of a vibrant and agile national security space enterprise. I welcome your feedback on this timely paper and your suggestions on the work of the Center. For more information, please visit us at www.nssaspace.org or contact me directly at 703-517-4110 or chris.williams@nssaspace.org.

Sincerely,



Chris Williams
Chair, Moorman Center for Space Studies
National Security Space Association

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Marc Berkowitz

The Fiscal Year (FY) 2024 President's Budget Request for the U.S. Space Force is a \$4.0B or roughly 15% increase from FY 2023 enacted levels. The increased request reflects the importance of activities in outer space to U.S. national security and economic well-being. It also reflects the imperative to counter the threat posed by rivals to freedom of passage through and operations in space. Both allocating the correct level of resources and funding stability are essential given that the freedom of space is a U.S. vital national interest and foreign nations seek to undermine American strategic advantages in the domain. The United States must be able to assure unimpeded access and use of space to achieve national objectives as well as protect and advance our interests in the domain.

Unfortunately, money alone is not sufficient to solve the challenge of how to acquire, field, and operate a more capable, resilient, protected, and defended space force structure and posture that can deter or, if necessary, defeat the threat to U.S. interests in space. If that was the case, then prior administrations' requests authorized and appropriated by Congress would have already ended debate and resolved the problem. The U.S. Government, however, continues to deliberate about how to redesign space forces for deterrence and warfighting. Yet, it has not addressed fundamental strategic-political and operational issues needed to inform and resolve tactical-technical force design issues. These include, for example, the use of force in space for self-defense, the relationship between offense and (passive and active) defense, and how to leverage commercial and international space capabilities. Until it does so, the United States will remain at risk of expending scarce resources on an inadequate mix of space mission solutions and continuing to be outpaced by the threat.

Kari Bingen

While this is the fourth budget request for the U.S. Space Force, it is the first since the release of the Biden administration's National Defense Strategy (NDS) and with the full slate of senior space leaders in place at the Department of Defense (DoD). So, how well does the Fiscal Year (FY) 2024 budget request reflect DoD's strategy and leadership priorities?

Overall, national security space is prioritized in DoD's budget request. The Space Force topline of \$30 billion reflects an impressive 15-percent increase over FY 2023 (and doubling since FY 2021). While this is the smallest budget across the military services by an order of magnitude, it has the highest percentage of growth.¹ Beyond the program and personnel transfers from other services that marked prior years' budget growth, this year's request shows real growth in new capabilities, such as missile warning/missile tracking with satellites in low and medium Earth orbits (LEO and MEO) and increasing investments in research and development (a 16% increase). It also reflects a larger force, albeit the Space Force is still – by far – the smallest service at a requested end strength level of 9,400 active-duty Guardians (the next smallest, the U.S. Marine Corps, is nearly 20 times larger).²

This is the year of proliferated LEO in the budget request, consistent with the NDS emphasis on “diverse, resilient, and redundant satellite constellations” and the Assistant Secretary of the Air Force for Space Acquisition and Integration's formula for success. In April 2023, the Space Development Agency (SDA) reached a key milestone with the launch of its first tranche of satellites, less than three years after contract awards.³ In the FY 2024 request, SDA seeks an 80% increase for its Proliferated Warfighter Space Architecture (missile warning/missile tracking

¹ Fiscal Year 2024 Budget Overview, Department of the Air Force, https://www.saffm.hq.af.mil/Portals/84/documents/FY24/Budget/FY24%20Budget%20Overview%20Book.pdf?ver=JjFXW89XqB_YsIGx1wx4IA%3d%3d

² Defense Budget Overview, United States Department of Defense Fiscal Year 2024 Budget Request, March 2023, https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2024/FY2024_Budget_Request_Overview_Book.pdf

³ Lopez, C. Todd, “Space Development Agency to Launch 10 Satellites,” DOD News, March 29, 2023, <https://www.defense.gov/News/News-Stories/Article/Article/3345559/space-development-agency-to-launch-10-satellites/>

and data relay architecture), from \$2.6 to \$4.7 billion, with an additional \$23 billion projected across FY 2025 - FY 2028 to field hundreds of small satellites. The way ahead for MEO missile warning/missile tracking is unclear this year, with both SDA and the Missile Defense Agency – through its Hypersonic and Ballistic Tracking Space Sensor program – appearing to diverge in their approaches. Longer term, how SDA fares in the outyears will be one to watch as DoD and Congress adjust to its different model of continuously buying, fielding, and replenishing small satellites rather than planning for big procurement spikes across a low number of large satellites.

Beyond SDA, the National Reconnaissance Office (NRO) is “building a new constellation that will take us from dozens of systems on orbit in 2023, to hundreds of systems on orbit in the next few years,” and is partnering with the Space Force “to develop and acquire reliable and resilient Ground Moving Target Indicator systems at speed.”⁴ These proliferated architectures do not appear to be matched by comparable investments in ground systems, despite the emphasis on “delivering ground before launch.”⁵ This massive influx of missile warning and intelligence, surveillance and reconnaissance (ISR) data will need to be matched by tasking, processing, exploitation, and dissemination capabilities – including investments in autonomy, artificial intelligence, and cloud computing – to make sense of the data and deliver insights to users on relevant timelines.

Notably absent from the budget request are resources for commercial space, which is a marked contrast from the NDS declaration that DoD be a “fast-follower where market forces are driving commercialization of militarily-relevant capabilities.” Short of a few mentions of “assessments” and “evaluations” of commercial services, unless classified, there is no explicit initiative or activity in the budget justification books or any signaling with outyear funding that the Space Force is committed to leveraging commercial space services.⁶ In addition to satellite communications (SATCOM) and launch, there are more opportunities to “buy what we can” with the expanded commercialization of ISR, environmental monitoring, and space situational awareness, as well as in-space servicing on the horizon.⁷

The request contains a roughly 30% increase in space domain awareness and combat power, including additional resources for defensive cyberspace operations, and ramps up funding for protected and jam-resistant SATCOM and user terminals. However, it is difficult to identify the specific investments in space defense and counterspace capabilities aligned to the NDS emphasis on “fight[ing] through disruption by improving defensive capabilities,” as these are typically contained in classified program lines. Classified activities comprise the largest element of the Space Force budget request at \$7.1 billion (24% of its budget) and grew 8% over the FY 2023 enacted level. Such an increase is likely to reflect growing space defense investments and further work with the Intelligence Community.

Finally, this is all for naught if the Congress does not pass a FY 2024 budget. The Secretary of the Air Force, in testimony before the House Appropriations Committee in March 2023, said that he “cannot overstate how devastating” it would be to revert to FY 2023 spending levels, and the Chief of Space Operations characterized the impact to the Space Force as “catastrophic.”⁸

⁴ Testimony of Dr. Christopher J. Scolese, Director, National Reconnaissance Office, before the House Armed Services Committee, Subcommittee on Strategic Forces Hearing on “Fiscal Year 2024 National Security Space Programs,” April 26, 2023, <https://armedservices.house.gov/sites/republicans.armedservices.house.gov/files/NRO%20HASC%20Hearing%20SFR%20April%2026%202023%20Final.pdf>

⁵ Secretary of the Air Force Public Affairs, “DAF outlines space acquisition philosophy, priorities, tenets,” Space Force News, November 21, 2022, <https://www.spaceforce.mil/News/Article/3224589/daf-outlines-space-acquisition-philosophy-priorities-tenets/3>

⁶ FY24 Air Force Budget Materials, <https://www.saffm.hq.af.mil/FM-Resources/Budget/Air-Force-Presidents-Budget-FY24/>

⁷ Sodders, Lisa, “Space Systems Command Celebrates First Anniversary as USSF Field Command,” Space Systems Command, August 12, 2022, <https://www.ssc.spaceforce.mil/Newsroom/ArticleDisplay/Article/3127004/space-systems-command-celebrates-first-anniversary-as-ussf-field-command>

⁸ Transcript from the Budget Hearing, “Fiscal Year 2024 Request for the United States Air Force and Space Force,” House Appropriations Committee-Defense, March 28, 2023, <https://appropriations.house.gov/legislation/hearings/budget-hearing-fiscal-year-2024-request-united-states-air-force-and-space-force>

Stephen Kitay

The increased funding to support the US Space Force demonstrates the criticality of their mission to national and economic security. While ground systems may have previously been considered an afterthought, it is encouraging to see the Space Force's renewed priority on areas such as ground processing, data network transport, information technologies, cybersecurity, and antenna augmentation. Purchasing services and leveraging commercial technologies will be a key to innovation, speed, and agility - and the future will increasingly be a hybrid architecture of government, commercial and allied space systems brought together on a common and secure cloud platform. Strength will come from the ability to move a hybrid space architecture from proof of concepts to a scaled, global capability.

Scott Pace

The President's budget request for FY 2024 provides strong support for space and space-based systems, with a record request of \$30.3 billion. The creation of the Space Force also makes it clearer what resources are being applied to the space domain, including the number of active-duty Space Force members compared to other armed services. On the other hand, work remains to be done on more fully integrating space with the rest of the Department of Defense. For example, in the summary presentation of the FY 2024 Defense Budget request, "Integrated Deterrence" only lists Air, Naval, and Land Power. Space and space-based systems are later listed as part of Integrated Deterrence along with Long Range Fires. That is, space is a critical distinct capability rather than something that is in fact integrally necessary to how the United States conducts joint and combined arms operations. Recognition of the importance of the space domain has come a long way, with combatant commanders routinely taking "red" and "blue" space capabilities into account, but there remains an on-going process to integrate the Space Force into the thinking of DOD as a whole.

Two areas where space thinking is having a significant impact on defense acquisition are that of the Space Development Agency's Proliferated Warfighter Space Architecture and the Space Force/Intelligence Community work on a space-based Ground Moving Target Indicator (GMTI) system. SDA's use of periodic competitive opportunities places a premium on commercial agility to rapidly deliver new space capabilities. Assistant Secretary of the Air Force for Space Acquisition and Integration Frank Calvelli has embraced the revolutionary SDA approach as part of the acquisition reforms sought by Congress as well as a means of reducing U.S. reliance on a small number of high-value assets in space. The need for space capabilities for GMTI functions has long been recognized, but the FY 2024 budget request is notable for the degree of acknowledged cooperation between the Space Force and the National Reconnaissance Office. The FY 2024 budget request continues to reinforce the theme of closer coordination of military (Title 10) and intelligence (Title 50) functions in space. While the respective communities rightly have distinct roles and missions, threats in and from the space domain are resulting in closer coordination of major acquisitions.

John Paul "JP" Parker

First, the good news: The FY 2024 budget for the U.S. Space Force is a substantial increase from where we began at the birth of the service, just over 3 years ago. A primary rationale for creating a separate Space Force was the widespread realization that while America's way of life depends on increasingly threatened space assets, funding intended for space defense was often used as a "bill payer" inside the Air Force. Many of us who supported the creation of a Space Force are encouraged that actual budget increases have followed the birth of our newest military service, and that new approaches like those taken by the Space Development Agency are embraced and resourced.

Now, the bad news: The Space Force budget will peak in FY 2024 and begin to drop in real terms, marking the end of the "honeymoon" period for the service and coinciding with the beginning of a period of escalating geopolitical tensions, where advanced space capabilities need to be ready for potential conflict. Chief of Space Operations General Chance Saltzman's mantra is "exploit what we have, buy what we can, and build only what we must", but funding is still largely tied up in long term development ("build") programs that will not bear fruit in the near term. The prime challenge for the Space Force is to shift funding to "exploit and buy" capabilities from allies,

agency partners and commercial providers if there is any real chance of strengthening our space posture in the near term. This is hard enough to do even when budgets are going up....

JR Riordan

The U.S. Space Force FY 2024 budget proposal has achieved a new orbit: over \$30 billion. The Space Force proposal is included in the President's budget request of \$842 billion for the Department of Defense—a record high number that has not been considered in our Nation's history. Space-savvy analysts agree now is the right time for this level of funding to support the myriad missions the Space Force must address. The Service role is vital to the defense and posture of our nation. Together with U.S. Space Command, the warfighting arm operating in the space domain, these two entities perform critical 24/7/365 missions in defense of America's interests. The budget request is a small price to pay for securing U.S. freedom of action in space.

Careful attention is paid each year to the recommended allocation of resources for research and development, procurement, operations and maintenance, military construction and personnel. This facilitates effective oversight, authorizations and appropriations by the Legislative branch—with the President proposing and Congress disposing. This annual process identifies adjustments to allow the Service to perform at its peak capacity and prowess. This is not just a financial drill—it is about staying ahead of those who would threaten us in the space domain. For example, the Chinese threat is rapidly accelerating. This is not a new assessment—and legislators have been kept aware of threat developments for years. The new Service has aligned to address the threat with rigor and speed, while posturing the nation to address future threats and support the National Security Strategy of the United States.

Finally, proliferated and diversified Space Force architectures now being deployed will add a level of survivability not seen in many years and allow us to continue accelerating past the threat. Influencing the mission is the speed of commercial innovation in the domain—and the Space Force is actively seeking to leverage that innovation. I am confident in our ability to sustain American superiority in the space domain—and the defense of our Nation and way of life.

Mandy Vaughn

The President's FY 2024 budget request for the Space Force - \$30.3B, a nearly 15% increase from FY 2023 enacted levels – is the new service's largest yet. It is a clear sign that there is high-level DoD and Administration focus, and fiscal buy-in, on addressing the pressing challenges facing our national security in the space domain. What remains to be seen is whether the United States Congress agrees ... especially given the heavy pressure that parts of the House Majority are putting on significant, across-the-board budget cuts.

Some high-level takeaways. Significant funding to the Space Development Agency (a nearly 50% increase over FY 2023 enacted) shows that Assistant Secretary Calvelli's endorsement of the iterative, go-fast "tranche" model of procurement is holding sway. It will be interesting to see whether we see future budgets reflecting this changed approach for other major programs of record. For the first time, "Tactically Responsive Space" is funded in the organic budget; whether the Space Force has figured out what to actually do with the dollars – or is simply being responsive to persistent Congressional direction – is another matter entirely. There are significant new efforts for commercial data-buys, a model that's gained some traction across the Federal space enterprise in the past few years ... such as \$17 million for space domain awareness augmentation from commercial providers. A large increase in funding to refresh the United Data Library shows the service is serious about a new, holistic approach to ingesting a variety of data from a diversity of sources. And major increases in Test and Evaluation funding reflect Chief of Space Operations General Saltzman's push for a digitally trained, digitally equipped, digitally engineered force of the future.

What the budget numbers and top-lines don't necessarily tease out is whether there is any fundamental shift in how the service is approaching and integrating new commercial capabilities. Many – most – of the budget lines addressed in the budget are legacy programs of record or stand-up of "traditional model" new starts. The Planning, Programming, Budgeting and Execution Process, for all its good and ill when it comes to being responsive to new tech "at the speed of mission need", reflects through and through.

Brief Biographies

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**Note - The opinions expressed herein are solely those of the authors and do not reflect the position of any Federal department or agency of the U.S. Government.*

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We thank you and our valued members for your continued support of NSSA, and the preservation and protection of the national security space enterprise.