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Policy Paper

Key Points

Airpower and spacepower are the driving forces behind every national security option at the president's command. No joint military operation can be conducted without some element of the Department of the Air Force (DAF)—a claim no other military department can make. The Air Force and the Space Force are America's indispensable military branches, essential to the success of any U.S. military operation.

President Trump inherited an Air Force that is older, smaller, and less ready than it has ever been since its founding as a separate service in 1947. Current plans continue shrinking the force over the next five years unless there is immediate action to reverse course. Air Force leaders have sounded this warning bell for years.

President Trump's initiative to establish the U.S. Space Force has been stifled by limited resources, inadequate numbers of personnel, and resistance to consolidating Department of Defense (DOD) space agencies. These impediments inhibit the new service from executing its core missions. Space Force leaders recognize this and must be empowered for success.

The DOD should adopt and apply cost-per-effect force planning analysis to ensure it makes the most prudent investment decisions across all the services.

President Trump must prioritize fixing the Department of the Air Force, otherwise the consequences will be disastrous for the nation's defense. The cost of this effort will require an increase of at least \$45 billion annually to begin recovering the Air Force's decline and adequately fund the Space Force.

Air Force and Space Force Vectors for the Incoming Trump Defense Team

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Abstract

Airpower and spacepower are the driving forces behind every national security option at the president's command. Yet, President Trump has inherited a Department of the Air Force (DAF) with two services in critical condition, though for different reasons. After decades in decline, the Air Force is now older, smaller, and less ready than it has ever been in its history. Without immediate action to reverse this course, current plans will continue to shrink the force over the next five years. Conversely, while President Trump stood up the U.S. Space Force, the service struggles to achieve its missions, impeded by insufficient funding, inadequate numbers of personnel, and resistance to consolidating Department of Defense (DOD) space agencies. President Trump's administration must prioritize fixing the Department of the Air Force, as the consequences of keeping the status quo will be disastrous for the nation's defense.

The priorities of DOD leadership and Congress during the Trump administration must be to rebuild and restore the Air Force to global preeminence. The same resolve will be required to fully resource the Space Force to achieve space superiority—to grow and catch up with the myriad requirements and expectations on America's newest military service to ensure overall U.S. military success. The leadership of the Space Force and the Air Force are doing everything they possibly can to maximize the warfighting capability and capacity of their respective services within the budgets they have been issued. However, they have come to the point where they simply can no longer meet the demands of the National Defense Strategy without an infusion of additional resources. The cost of the effort to reverse the Air Force's decline and adequately fund the Space Force will require an increase of at least \$45 billion annually, combined. The fixes must start now, or the United States risks losing the next major war.

The Problem

Demand for both the Air Force and the Space Force is surging due to the national security challenges around the globe. Service leaders have asked for help to ensure this demand aligns with available resources. Yet, President Trump is inheriting an Air Force that is older, smaller, and less ready than it has ever been in its history—despite the best efforts of leaders who have had to squeeze what capability they can out of insufficient resources. And, despite decades of decline, the service is slated to get even smaller over the next five years unless the administration takes immediate action to reverse this course.¹ Additionally, President Trump's initiative in standing up the U.S. Space Force, while prescient to emerging threats, is beset by insufficient funding, inadequate numbers of personnel, and resistance to consolidating Department of Defense (DOD) space agencies. President Trump's administration must prioritize fixing the Department of the Air Force, or else the consequences of a continued decline will be disastrous for the nation's defense.

While defense was not a prevalent topic during the recent election debates or speeches, the Trump administration took office amid tremendous national security pressures. World events are now driving great focus on national security, and indeed global security, issues. Core American equities and credibility are on the line. DAF leadership have worked diligently over the years to resolve the challenges of underfunding and low prioritization, doing everything they can to optimize the resources they were allotted. For too long they have been limited by leaders in the executive branch and Congress. What is now at stake is the nation's security.

A robust menu of air and space power capabilities, fielded by the Air Force and Space Force, are indispensable to our nation's security leaders as they strive to navigate the difficult geopolitical environment of today and into the future in the most decisive manner possible. The Air and Space Forces empower peace through strength—failing that, they have what it takes to successfully fight and win wars.

The capabilities found in these two services demand careful stewardship to ensure airmen and guardians can deliver necessary options when the chips are down. Circumstances in both branches are fragile. In the Air Force, this is attributable to three decades of underfunding, heavy use, a string of bad planning assumptions, and a dismissive—and incorrect—attitude held by many that air and space merely exist to support surface forces. The Space Force's situation stems from a similar culture of being taken for granted and the view of space as a peaceful, non-warfighting domain. As such, the fledgling force has struggled to etch its mission out of limited resources and pry its core functions away from factions of the other services focused instead on their own domains.

Still, no matter what challenges the United States may be facing, air and space capabilities are fundamental to meeting them.

- Air and space superiority are essential preconditions for any successful military operation, as combined they enable freedom to attack and freedom from attack for all U.S. and allied forces.
- A long-range precision strike capability can cripple key elements of an adversary's war-making abilities. Air forces capable of penetrating adversary defenses to deliver lethality on a repeatable and continuing basis at scale are vital to winning wars. The Air Force is the only service that possesses the types of combat aircraft that can

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Leadership Gets It

Air Force and Space Force leaders have long argued for more resources to ensure their forces are prepared to fight and win. In 2018, before the Space Force became an independent service, Secretary of the Air Force Heather Wilson declared, [“The Air Force is too small for what the nation is asking us to do.”](#) This was not the first call for help, nor have the requests for added investment stopped. In 2024, in testimony before Congress, Chief of Space Operations Gen Chance Saltzman explained, [“With only 3 percent of the \(total defense\) budget, the Space Force offers a tremendous value proposition to the nation. Every dollar invested in space brings asymmetric returns, but that means every dollar cut creates asymmetric risk.”](#) In a 2025 op-ed, Chief of Staff of the Air Force Gen David Allvin explained, [“Our service lacks the required funding and resources, even as the potential for near-term conflict grows. In short, America needs more Air Force, and it needs it now.”](#) The time has come to listen to the Air Force and Space Force leaders—too much is on the line to consider any other course of action.

credibly threaten and effectively conduct precision strikes against any target on the planet and, if necessary, promptly disable or destroy them. This is particularly true when it comes to long-range stealthy bombers.

- American power can be projected quickly to anywhere on the face of the earth because of the Air Force’s capability for rapid mobility. Global, regional, and local air mobility empower joint operations in the conduct of warfare.
- Exploiting the domains of air and space allow persistent, global, and accessible intelligence, surveillance, and reconnaissance (ISR); communications; command and control; and other warfighting capabilities critical for successful joint military operations.
- The Space Force, as the only service charged with defending against enemy attacks in space, is singularly crucial for maintaining the peace, deterring aggressors, and defeating them should hostilities erupt in this domain.

The demand signal for strong, capable, and robust air and space forces in sufficient capacity is growing. Anyone reading news headlines in recent years will know the main drivers. The list includes China aggressively seizing territory in the Pacific in violation of international law; Russia using brute force aggression in Ukraine and ignoring the laws of armed conflict, committing heinous war

crimes in the process; Iran directly attacking Israel for the first time in history, as well as taking other actions to destabilize the Middle East; North Korea pressing ahead with their nuclear ambitions; and Houthi rebels shutting down commercial traffic in the Red Sea. In all instances, we witnessed what inaction

and loss of conventional deterrence looks like. The results are severe: wars initiated, territory seized, dangerous precedents set, crimes against humanity, entire regions set ablaze, allies rattled, adversaries rewarded for their aggression, significant economic upheaval, and core U.S. interests eroded.

The United States has an abysmal track record of anticipating security challenges—Pearl Harbor, North Korea’s invasion of South Korea, Saddam Hussein’s invasion of Kuwait, and the attacks of 9/11 are all examples. What is certain is that the scale and scope of challenges facing the nation today are greater than at any time in our nation’s history. Ensuring security and stability demands a wide range of mission competencies and a depth of capacity. Air and space are particularly unique in this regard because they will be in

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demand no matter what the circumstances. Accordingly, the capability and capacity of the Department of the Air Force is not just about the Air Force and Space Force; it is about the health of the entire U.S. military.

Every national security option at the president's command is made possible by airpower and spacepower—no matter whether the actual fight takes place on land, at sea, in the air, or in space. No joint operation can be conducted without some element of the Department of the Air Force—a claim no other military department can assert. Our Air Force and Space Force are America's indispensable military branches, fundamental to any U.S. military operation. The attention of DOD leadership under the Trump administration, along with congressional priority, are needed to rebuild and restore the Air Force to global preeminence and to fully resource the Space Force to achieve space superiority.

Rebuild & Restore the U.S. Air Force to Global Preeminence or Risk a National Security Disaster

The first priority for the Trump administration as it seeks to build Peace Through Strength should be to rebuild and restore the U.S. Air Force, or it risks a national security disaster. Today's Air Force has almost 60 percent fewer active-duty fighter squadrons

than during Operation Desert Storm in 1991, and its bomber and airborne early warning and control forces are less than half the size.² Only 28 percent of Air Force fighters and 14 percent of its bombers are stealthy, which means most Air Force combat aircraft are not survivable against China's and Russia's most advanced threats—unless a significant amount of resources are applied to suppress enemy air defenses.

The youngest B-52 bomber—making up most of the U.S. bomber force—is 63 years old. Air refueling tankers are about the same age. The Air Force's "advanced" trainer—the T-38—first flew in 1959. The average age of its fighter force is near 30 years. Ten of its aircraft types first flew over 50 years ago. Those 10 aircraft types account for over 2,600 Air Force aircraft, or roughly two-thirds of the entire force. Only 16 E-3 airborne warning and control aircraft—all over 42 years old—remain to handle the entire Air Force's airborne battle management demands. The Air Force is literally a geriatric force today. In comparison, the Navy has only one operational warship on active duty over 50 years old.³

Under the Biden administration's plans, the Air Force is on track to lose nearly 1,000 planes over the next five years while acquiring a fraction of that number. In Fiscal 2025 alone, the Air Force requested to divest 250 aircraft while buying just 91.⁴ Continuing to remove more aircraft than it buys will collapse the Air Force. Currently, there is no plan to stop that from happening. However, the situation is worse than declining force structure. At any given time, over 500 of the Air Force's flyable aircraft are grounded due to a chronic lack of spare parts.⁵ As the Air Force gets older, readiness gets worse. Furthermore, the Air Force suffers from a chronic 2,000 pilot shortfall.⁶ Over half of this shortage is made up of combat pilots. To succeed in a major conflict, the U.S. Air Force must have the strategic depth to replace both the aircraft and the pilots that would be lost in combat operations. The pilot shortage threatens the entire U.S. military's ability to conduct a peer-level warfighting campaign. The oldest and smallest aircraft inventory in its history, combined with a lack of spare parts, and an enduring pilot shortage with falling pilot experience levels leave the United States Air Force in a precarious condition that portends a national security disaster. That is why Air Force Chief, Gen David Allvin has stated, "It is make or break time—America needs more Air Force."⁷

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Obfuscating the Problem: Pass-through —

The challenges facing the Air Force are masked by nearly \$45 billion in non-Air Force spending over which the Secretary of the Air Force has no control—that is about 24 percent of the Air Force budget. This “pass-through” budget practice is the single biggest threat to the modernization of the Air Force because it creates the false impression that the Air Force is getting significantly more funding than the Army and the Navy—it does not.⁸ For 30 years in a row the Air Force received less funding than the Army and Navy when pass-through is appropriately allocated to what it is—spending for defense-wide agencies.⁹ As a result, the Air Force has significantly atrophied. Secretary Hegseth should immediately change this deceptive practice and, in the name of government transparency, begin reporting the Air Force’s true budget authority.

Reconstructing the Air Force America Needs

The Air Force does have a constructive modernization plan. The F-35, the Next Generation Air Dominance (NGAD) penetrating combat aircraft (PCA), the B-21 bomber, the F-15EX, the T-7 trainer, newly developed uninhabited Collaborative Combat Aircraft (CCA), the EA-37B electronic warfare jet, the E-7 airborne warning and control system (AWACS) replacement, the MH-139 helicopter, the KC-46 refueling tanker, and the Sentinel intercontinental nuclear ballistic missile, taken together, are the right set of capabilities to rebuild the Air Force. Upgrades are also important for the existing inventories of the F-22, F-16, F-15E, MQ-9, B-2, B-52, C-17, C-130, KC-135, HH-60, and other systems. President Trump’s new missile shield over the United States will require the Air Force to significantly expand its fleet of air superiority fighters and airborne early warning and control (AEW&C) aircraft as well as continue investment in remotely piloted sensor-shooter

aircraft to defend against advanced cruise missile and other next generation aerial threats.¹⁰ The problem is that, today, the Air Force lacks the resources to fully fund all these modernization programs at the pace they need to execute.

Some see a future, bright with unmanned aircraft, and wonder why we cannot get to that future faster. Yet, as promising as artificial intelligence and autonomy are, these capabilities are still developing and have not advanced to where they can replace crewed combat aircraft. Indeed, for the foreseeable future, success will be based not on choosing between crewed and unoccupied aircraft, but rather on integrating the two to work effectively together based on the reality of actual capabilities.¹¹

The reality is that airpower is America’s foremost asymmetric advantage. We are the pacing threat for China and Russia—we just need to procure what we build in sufficient numbers. To this end, consider that Israel recently executed a decisive strike flying U.S.-made F-35s into the heart of Iran, some 1,000 miles away, without a loss. Those F-35s penetrated highly defended Iranian airspace (a feat many critics said was impossible), destroyed advanced Russian-built surface-to-air missile systems, and demonstrated impressive airpower capability against a well-armed foe. Drones could not have done what those F-35s did and will not be able to do so any time soon. Experts working to advance artificial intelligence and autonomous technologies on aircraft estimate that vision may not be possible until well into the future.¹²

The Air Force is now in a position where it requires both new capabilities and more force capacity. Its austerity-driven 30-year practice of “trading capacity for capabilities” is no longer feasible, given the growing gap between the forces it can provide to combatant commanders and their real-world operational requirements. The Air Force must be provided the resources necessary to reverse its force structure nosedive. Without them, we face catastrophic consequences for America’s defense.

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The following initiatives are essential to begin the recovery of the Air Force from its decline and transition it to a force that is sized, shaped, and ready to meet the requirements of the National Defense Strategy:

1. **Fully fund the Next Generation Air Dominance (NGAD) penetrating combat aircraft (PCA).** Keeping the NGAD PCA on track is imperative to meet the challenges of the ever-advancing Chinese military. The Biden Administration effectively terminated work on the NGAD PCA pending a new administration review. That action effectively stopped development on this critical need for the U.S. to achieve a warfighting advantage. The PCA element of NGAD will have profound and lasting consequences not just for the Air Force, but for the very foundations of U.S. and allied national security. This is because air superiority is an essential precondition required not just for the success of Air Force core missions but for all joint warfighting operations in major combat. Victory demands attacking all aspects of an enemy's critical centers of gravity to negate its warfighting capabilities. Penetrating combat aircraft are central to that mission given their ability to deliver attack density at scale. The reality of the Air Force's aging aircraft inventory in conjunction with threats growing in both capability and capacity mean that we must rebuild the Air Force's penetrating or "stand-in" force. The Air Force stands alone among all the services in delivering this option to the president and combatant commanders. NGAD PCA will provide long-range capabilities to achieve air superiority and be able to conduct multiple other key mission sets empowering penetrating conventional strategic attack.¹³

Cost estimate: Resume \$3-4 billion per year in the budget as originally planned to keep this program on track.

2. **Increase F-35A acquisition to 74 per year as quickly as possible.** To stabilize the size and age of its fighter force, the Air Force requires a buy of a minimum of 72 new fighters per year. On average, the Air Force has purchased F-35As at an annual rate that is less than 60 percent of its original planned rate of 80 per year. This has delayed force modernization and increased F-35 program costs. The Air Force requested funding to buy only 42 F-35As for fiscal year 2025. Increasing this to 74 per year while funding the NGAD program as planned would begin to reverse the harm created by 30 years of Air Force underfunding.

Cost estimate: \$3.7 billion for an additional 32 F-35A per year.

3. **Increase F-15EX acquisition to 24 per year and grow the planned inventory to 225.** The current Air Force plan for the F-15EX truncates the program at 98 aircraft. The rationale for this number is budget, not defense needs. Threat demands require a minimum of two wings of 72 combat coded F-15EX aircraft. When including training, test, attrition reserve, and backup aircraft inventory, this amounts to a total of 225. The F-15EX possesses versatile capabilities that can meet the demands of both peer warfare when working in conjunction with 5th generation aircraft as well as against less capable adversaries. A new requirement for additional F-15EXs that the new Trump administration has established is a missile defense shield for defense of the United States. The F-15EX is an optimal aircraft for this mission and will help recapitalize and modernize the Air National Guard simultaneously.

Cost estimate: \$3 billion for an additional 24 F-15EX per year.

- 4. Increase B-21 acquisition to 20 per year by 2030.** The Air Force's combat-coded bomber force consists of 44 B-52s, 36 B-1Bs, and 16 B-2s. After factoring in mission capable rates and nuclear deterrence requirements, this force may be able to generate only about 26 combat sorties a day. Spread over tens of thousands of potential aimpoints across vast territories in a major conflict, this is simply not enough. Moreover, only the 16 stealthy B-2s can penetrate China or Russia's air defenses, which is why the lack of penetrating long-range strike capacity is one of DOD's most critical shortfalls. The Air Force may increase its acquisition of stealthy B-21 bombers to about ten per year by the early 2030s, which is only half the maximum acquisition rates achieved by its B-52 and B-1B bomber programs. Doubling the anticipated B-21 procurement by 2030 would increase DOD's capacity to deter nuclear and conventional threats in a timeframe when the threat of Chinese aggression may be greatest.

Cost estimate: \$5.2 billion for ten more B-21s per year and a \$4–5 billion one-time cost to stand up a second B-21 production line and its supply chain.

- 5. Fully fund the Sentinel program to begin replacing Minuteman-III ICBMs by 2030 as planned.** Minuteman-III intercontinental ballistic missiles (ICBMs), their launch facilities, communications, and other infrastructure were designed and fielded in the 1960s and early 1970s. The entire weapon system must now be replaced to maintain a safe, secure, and reliable nuclear deterrent.

Due to a lack of Minuteman-III spare parts (and other reasons), delaying the fielding of new Sentinel missiles past 2030 would reduce the number of operational ICBMs the Air Force can deploy below national requirements. This would occur while China grows its nuclear ICBM inventory, and Russia completes its nuclear modernization. Planned Sentinel program funding will ramp to almost \$8 billion a year by FY 2027. Only a modest increase in funding is needed to fund projected program cost increases and preserve initial Sentinel missile fielding in 2030 as planned.

Cost estimate: An additional \$5–8 billion over the FY 2026–2030 future years defense program (FYDP).

- 6. Establish a National Nuclear Deterrence Fund.** With respect to conventional and nuclear modernization, we cannot choose either/or, as the president and the nation need both. The nuclear triad, two-thirds of which reside in the Air Force, is a proven deterrent that saw the nation through the Cold War. Now, as the world evolves to include three major nuclear powers and a host of smaller ones, the deterrence borne of a survivable nuclear triad has never been more essential. However, given the need to rebuild the conventional force structures of both the Navy and Air Force, it is imperative to establish a national nuclear deterrence fund separate from the Air Force and the Navy service accounts. This will ensure that spending on the nation's nuclear deterrent forces does not kill funding for these two services' conventional forces.

Cost estimate: Reduction of \$5–8 billion out of DAF budget over FY 2026–2030.

7. **Increase the Air Force’s combat fighter pilot flight hours to 200 per year.** The Air Force’s ability to “fight tonight” to defeat potential Chinese aggression that may occur with little warning has seriously eroded. Today, not a single Air Force fighter squadron is fully ready to perform its combat missions.¹⁴ This is a critical shortfall, given that the U.S. Indo-Pacific Command has warned that China will be prepared to launch an invasion of Taiwan as soon as 2027.¹⁵ Leading indicators include China’s rapid fielding of next generation weapon systems, stockpiling of war reserve materials, and efforts to insulate its economy from the effects of a major war. In addition, Chinese fighter pilots are now flying more than 200 hours a year, and the modernization and capability of Chinese fighter aircraft have increased in step with their operational readiness.¹⁶ Failing to defeat a Chinese assault on Taiwan or elsewhere in the South China Sea would fatally breach the security of the Pacific’s first island chain and place China well down the path toward achieving its long-term goal of dominating the Western Pacific.

Cost estimate: An additional 4.95 billion to bring flying hours up to/sustain 200 hours per fighter pilot per year.¹⁷

8. **Fully fund the Air Force’s Weapon System Sustainment (WSS) account to support 200 flying hours for fighter pilots each year.** The Air Force’s current readiness deficiencies can be directly traced to its chronic underfunding of flying hours for its pilots and only partial funding for weapon system sustainment (WSS) that includes spare parts and other materials needed to maintain a combat-ready force. On average, the Air Force has funded 130 flying hours per year for its fighter pilots, a significant decrease from the NATO

standard of 200 hours per year during the Cold War.¹⁸ Furthermore, the Air Force’s WSS costs continue to increase because of the advanced ages of its aircraft. Increasing fighter pilot flying hours and fully funding WSS requirements—in combination with acquiring new aircraft—would greatly improve the Air Force’s ability to fight as required by the National Defense Strategy.

Cost estimate: An additional \$11.15 billion annually to sustain 100 percent of the new flying hour support requirements.¹⁹

9. **Protect CCA development and acquisition.** Through a teamed approach with manned fighters and bombers, CCA will empower a new operating paradigm that has the potential to bring advanced capabilities and greater numbers of aircraft to a fight. The Air Force and industry have spent significant time, energy, and resources developing the technology necessary to field initial CCA, while pursuing subsequent increments to meet evolving mission demands. DOD leaders have stipulated that CCA should be protected from budget cuts. This guidance should continue in effect to afford the necessary resources and program stability to manifest the potential of these new air combat systems. When it comes time to transition from the R&D phase of the program to production, funding should increase to ensure rapid acquisition at an operationally decisive scale to fill combat airpower capacity gaps.

Cost Estimate: Sustain and protect current investment levels.

10. **Increase funding to rebuild critical munitions inventories.** DOD and independent assessments indicate the Air Force will likely deplete inventories of its most critical air-to-air and air-to-surface munitions very quickly

during a high-intensity conflict with China.²⁰ Munitions shortfalls would cripple the Air Force's combat operations and risk overall U.S. campaign failure. Additional funding is required to increase the service's inventories of air-to-air weapons to achieve air superiority, anti-ship weapons to blunt an amphibious assault, and weapons to suppress air defense threats—all are needed to defeat a Chinese offensive and hedge against protracted conflict. Acquisition priorities should include munitions now in production like the Long-Range Anti-Ship Missile (LRASM), Joint Air-to-Surface Standoff Missile-D (JASSM-D), and counter-air-defense Stand-in Attack Weapon (SiAW). Additional funding would speed the acquisition of next generation munitions about to enter production like the Hypersonic Attack Cruise Missile (HACM) and the beyond-visual-range air-to-air Joint Advanced Tactical Missile (JATM). It is important to recognize that weapons must be built and stockpiled during peacetime to build an inventory that can sustain long-term conflict, as the U.S. defense industry will not be able to produce sufficient inventory once conflict begins.

Cost estimate: \$1 billion, ramping to \$2 billion per year as industry increases its munitions production capacity and new weapons enter production.

11. **Add funding to the U.S. Air Force for air base air and missile defense.** Given the increasing threat conditions facing the Air Force around the world and the inattention the U.S. Army has paid to resourcing its primary responsibility for ground-based theater missile and air defenses, the Air Force requires additional funding for air and missile defense to modernize its systems, address threats, and maintain readiness.²¹ Part of this requirement could

be accomplished by transferring some of these roles and missions from the Army to the Air Force to align these mission requirements, as is the norm with most militaries around the world. This transfer, however, must include the requisite funding for research and development, procurement, and construction.

Cost estimate: An additional \$1 billion annually.

12. **Fund at least 26 E-7s as the Next Generation AEW&C Capability.** As instability increases due to increased cooperation between China, Russia, Iran, and North Korea, the Air Force must be able to achieve air superiority, which requires air battle management, in contested environments simultaneously in multiple geographic regions. The Chinese Air Force has far surpassed the Air Force's AEW&C capability, while the DOD has not recapitalized Air Force AEW&C forces since the 1970s. The U.S. Navy's sensing aircraft fleet consists of P-8's and E-2D's. The P-8 program of record is 138 aircraft and along with 86 E-2D's. That is a total of 224 Navy domain sensing aircraft with modern sensors and aircrew. In comparison, after the divestment actions of the previous four years, the Air Force is left with only 16 E-3 AWACS aircraft in hospice care. It is the sole Air Force AEW&C aircraft dedicated to executing the air battle management functions required to achieve both air superiority for joint military operations and airborne early warning for homeland defense. To optimize future PCA and 5th-generation long-range combat capability, E-7 must be fully funded to secure the AEW&C and air battle management capacity needed across the force.

Cost estimate: An additional \$5.12 billion annually between 2028–2032.

13. Initiate development of the Next Generation Air Refueling System (NGAS) with a target of beginning initial production in the mid-2030s.

The Air Force will soon finish its analysis of alternatives (AOA) on its future aerial refueling needs and how quickly a new NGAS aircraft can be developed. The current contract for acquiring KC-46A tankers concludes around FY 2028 at 179 aircraft. NGAS alternatives include semi-stealthy aircraft designs, which would permit the Air Force to refuel F-35A and other stealthy aircraft in contested areas. This would increase the Air Force's range and target coverage in the Western Pacific. The Air Force currently cannot afford to simultaneously develop and acquire the NGAD, NGAS, and a fleet of semi-autonomous collaborative combat aircraft.

Cost estimate: An estimated \$300 million in RDT&E per year beginning early in the next FYDP would provide seed money to develop NGAS without impacting these other critical modernization programs.

Set Up the Space Force for Success _____

While the U.S. Air Force requires a significant infusion of capital, additional resources are similarly required for the Space Force to be able to achieve its core missions. The Space Force faces its own

compounding pressures. First, there is an overwhelming demand for more space-based capabilities from all the combatant commands and service components, which need everything from space-based communications to surveillance and targeting information to achieve their own missions. Second, the U.S. assets in orbit are extremely

vulnerable, as China and Russia have turned the once peaceful domain of space into a no-man's zone of rising threats. Third, China and Russia are increasingly leveraging space themselves to hold America and its allies at risk. Chief of Space Operations Gen B. Chance Saltzman uses an apt analogy here: Building the U.S. Space Force into a modern warfighting service is akin to transforming the peacetime, commercial-based Merchant Marine into the U.S. Navy with its associated warfighting prowess and capabilities.²² This means not only protecting friendly satellites but also denying adversaries the benefits of space effects and preventing or ending their ability to target U.S. and allied forces from space as necessary during peace and war.

Without control of space, the United States cannot win. The new Trump administration must get the Space Force the resources and authorities to gain and maintain control of space. Space Force leaders have been asking for this support.²³ Biden administration policies restricted the Space Force from fielding capabilities necessary to achieve domain superiority in the same way other branches of the military achieve superiority in the air, on land, and at sea.²⁴ They saw space as the peaceful domain they hoped for, not the belligerent domain our adversaries are shaping it to be. This must change if the Space Force and, indeed, our nation's military are to deter hostilities and succeed in future conflicts.

The Space Force is now too small to meet its mission. It is funded with a scant 3.5 percent of the DOD budget and must support every military service component and every combatant commander with just over 9,000 military members. Other services have individual bases with greater populations.

A key rationale for establishing the Space Force was to consolidate all DOD space missions and assets into a single military branch to maximize unity of

One of the biggest challenges facing the Space Force is its scale. Despite the overwhelming demand for more space functions, the service is constrained by its size and must be nurtured to grow as rapidly as possible.

“Not only do we need a Space Force that continues to deliver critical space effects for the conduct of joint military operations, but we also need one that can protect U.S. and allied military operations from space-enabled attack and this new mission requires new resources.”

Gen B. Chance Saltzman, CSO

effort, effectiveness, and efficiency.²⁵ But that never happened. President Trump needs to correct this lack of action by the Biden administration and command all DOD space agencies—at a minimum any operations in space controlled by these agencies—to align under the Space Force. These agencies each play a critical role in space. Their fundamental purpose should not change, but the unity of vision and efficiency of operations gained by consolidating them in the Space Force will enhance U.S. national security and improve coordination across our defense and intelligence establishments. The Space Force can and should be entrusted to lead, guide, protect, and ensure they flourish in accomplishing their roles. Continuing business as usual with stove-piped organizations and multiple organizational leaders is doomed to generate both waste through inefficiency and mission gaps through lost coordination.

The Space Force has a good plan, but it is having to rearchitect nearly all its capabilities at once due to rapidly evolving threats; it must expand existing capabilities and take the actions needed to field offensive combat weapon systems in space.²⁶ As Gen Saltzman has stated, “Not only do we need a Space Force that continues to deliver critical space effects for the conduct of joint military operations, but we also need one that can protect U.S. and allied military operations from space-enabled attack and this new mission requires new resources.”²⁷ With these, and all the other demands on the Space Force, the former Secretary of the Air Force recognized that the Space Force’s budget “is going to need to double or triple over time to

be able to fund the things we’re actually going to need to have.”²⁸ However, one of the biggest challenges facing the Space Force is its scale. Despite the overwhelming demand for more space functions, the service is constrained by its size and must be nurtured to grow as rapidly as possible—just not so fast that it will collapse under the strain of that growth.

Given the reality of its scaling challenge, the Space Force budget should be programed to grow at a rate to absorb a 13–18 percent annual budget increase (\$3.9–5.4 billion annually). This acknowledges 3 percent annual inflation, equating to a 10–15 percent growth in buying power added annually in each year of the FYDP.²⁹ This increase should be front-loaded for the Space Force to fill in the most pressing gaps as soon as possible. In other words, Space Force needs 15–18 percent growth for the next three years after which growth can taper to 10–13 percent. The Space Force has programs (to include facilities and manpower) that require a near-term plus-up in funding. A Space Force budget goal that approaches \$60 billion by 2030 is the plan the Trump administration should put in place.

Below are major Space Force program areas and cost estimates for each that illustrate where and how funding increases may be applied to effectively grow the Space Force to meet the demands of the National Defense Strategy.

1. **Field Advanced Space Control and Counterspace Systems.** China and Russia are developing sophisticated counterspace weapons including directed energy systems, orbital interceptors,

and cyber capabilities. The Space Force must field both defensive and offensive systems to protect U.S. space assets and preserve freedom of action in space. This includes developing resilient satellite architectures, active defense capabilities, and systems to deny adversaries the benefits of space capabilities in conflict.³⁰ As Gen Saltzman explains, “We have to conduct counter space operations to deny an adversary the ability to target our forces.”³¹

Cost estimate: Ramp from \$1.5 billion in 2026 to \$5 billion in 2030.

2. **Expand Space Domain Awareness and Battle Management Capabilities.**

The Space Force currently lacks the comprehensive ability to detect, track, and characterize objects across all orbital regimes, particularly in cislunar space. This problem is only growing as China and Russia continue developing maneuvering counterspace capabilities and the number of total satellites and space debris grows exponentially. With only limited ground-based and orbital sensors, the Space Force cannot maintain comprehensive space domain awareness. The service must rapidly field additional ground-based sensors, deploy space-based surveillance capabilities, and integrate commercial space situational awareness data.

Additionally, modernized command and control systems are required to process the increased data volume and enable timely decision-making in contested scenarios. To achieve true space superiority, the Space Force requires significantly enhanced battle management capabilities.

Cost estimate: Ramp from \$0.75 billion in 2026 to \$3 billion in 2030.

3. **Enhance Space Access and Launch Capabilities.**

Current launch facilities are barely keeping pace with the booming growth of the U.S. commercial space launch sector. While substantial investments have been made in recent years, they have largely focused on mitigating risk and addressing technical debt. Substantial increased investment is necessary to enable increased launch cadence and capacity. Building additional launch sites beyond Cape Canaveral and Vandenberg Space Force Base would also provide greater flexibility for launch providers and mitigate the risk of substantial loss of space-access if one of the existing launch locations is damaged by natural disaster or adversary action.³²

Cost estimate: Ramp from \$1 billion in 2026 to \$3 billion in 2030.

4. **Expand Space Force Military Personnel End Strength.**

The Space Force’s current end strength of approximately 9,800 military members severely limits its ability to both operate space systems and integrate space expertise into joint military planning and operations. While multiple combatant commands and joint task forces require space professionals to enable modern military operations, the Space Force lacks sufficient personnel to fill these critical positions. Space capabilities are fundamental to everything from precision strike to logistics, yet space professionals are often absent from operational planning teams and command staffs. The service must add approximately 4,500 military personnel over five years, focusing on both technical specialties, such as orbital warfare operators, space domain awareness specialists, and cyber defense experts, and skilled officers and

Non-Commissioned Officers (NCOs) who can serve as space advisors integrated across joint organizations. Without space professionals “in the room” during the planning and execution of joint operations, the U.S. military risks sub-optimal employment of space capabilities and increased vulnerability to adversary counterspace actions. This investment will address both the Space Force’s internal operational requirements and ensure space expertise is properly integrated into joint military planning and execution. While 4,500 is a modest personnel increase for other services, it represents nearly 50 percent growth for the Space Force. These personnel are essential for operating new capabilities and enabling broader joint organizations to effectively leverage space power in an increasingly contested domain.

Cost estimate: An additional \$1 billion annually between 2026–2030 for increased military personnel costs.

- 5. Develop Cislunar Space Operations Capabilities.** As commercial and military activities expand beyond geosynchronous orbit, the Space Force must develop capabilities to operate in cislunar space. This includes fielding sensors for space domain awareness, developing spacecraft able to maneuver in complex cislunar trajectories, and establishing command and control systems for extended operations. With China actively developing cislunar capabilities, the United States cannot cede this strategic high ground. Early investment is essential to establish presence and preserve freedom of action in this emerging domain.³³

Cost estimate: An additional \$0.25 billion per year between 2026–2030.

Adopt Cost-Per-Effect Analysis as DOD’s Preferred Measure of Merit

To ensure we are getting the most out of every defense dollar, President Trump should encourage Secretary Hegseth to direct defense-wide use of cost-per-effect analyses and enforce clear roles-and-missions discipline among the armed services.³⁴ Doing so will challenge the Army to justify developing long-range hypersonic strike missiles costing \$50–60 million apiece when the Air Force and Navy can perform that mission effectively at a fraction of the cost.

Likewise, the Army does not need to develop its own surveillance aircraft or its own space constellation of satellites when these capabilities are already resident in the Department of the Air Force. Other services are acting to recreate their own “Space Force” within their own confines—this is duplicative and flies in the face of why President Trump created the Space Force. Mission grabs are not appropriate for a military strapped for resources. DOD is ripe for cost-per-effect analysis by the new Department of Government Efficiency (DOGE).

Building the most effective, efficient military in an era of decreased defense spending requires focusing on solutions that realize the best mission value. Wars are not won by the lowest-cost bidders. They are won by innovatively applying more capable systems to achieve desired effects or outputs in the best way possible. For the same reason, the value of a warfighting system cannot be accurately quantified by input measures like unit cost, cost per flying hour, or total sustainment cost over the lifetime of a program.

While this seems obvious, an continuing narrow focus on quantitative metrics strongly suggests otherwise. Indeed, “effectiveness” has largely been missing from the goal of cost-effectiveness in procuring military systems for the last 30 years. Though well-intentioned, a focus on unit and sustainment costs too often yields capabilities that drive more expensive, less capable combat options in an operational context.

Looking to future investments, the concept of “cost” needs to focus less on individual systems and more on the enterprise resources required to achieve mission goals. This means implementing a “cost-per-effect” metric. A cost-per-effect assessment measures the sum of what it takes to net a desired mission result, not just a single system’s acquisition and support

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costs without necessary context surrounding the capability’s actual use. An everyday example is office printers. You can buy a cheap printer that has cheap ink cartridges, but the print quality may be poor, the system may require constant maintenance, it may require greater staff hours to run and monitor, and you may have to refill the cartridges a lot more frequently. A more robust printer with a better ink system might cost more, but can print more at higher quality for less, using less ink, and require fewer staff hours and maintenance calls.

Stealth weapon systems, similarly, may appear more costly on a per-unit basis than less-capable legacy aircraft designs. Still, enterprise assessments illustrate their potential to complete mission objectives more efficiently and capably. Non-stealth less-advanced alternatives cannot accomplish the same missions with the same number of aircraft—they require dozens more to achieve what a handful of advanced stealthy systems can. Because fewer aircraft achieve the same mission effects, stealth systems can lower overall operational expenses. As such, they are a far more cost-effective option.

Leaders in Washington D.C. tend to focus on how much an aircraft or spacecraft will cost without looking at how it will be used. Understanding that aircraft and spacecraft tend to have lives measured in decades, the real

money drivers reside on the operational side of the ledger. This often sees certain options appear “cheap” on paper but deliver lesser capability at extremely high cost. For example, the F-117 stealth fighter was always considered “expensive”—and it did cost a lot to buy and sustain compared to non-stealth combat aircraft of the day. However, these aircraft were radically more effective and efficient. On night one of Desert Storm, as an example, it took over 40 non-stealth aircraft to strike a single target. Out of this total, only eight aircraft dropped bombs, and the rest were focused on keeping those strike aircraft alive with things like air superiority and electronic jamming. Past this, think about the crew demands of those 40+ aircraft, the basing and logistical support, and the risk of putting that many non-stealth aircraft into harm’s way. At that same time, 20 F-117s hit 28 separate targets thanks to their use of stealth technology and precision munitions. From this vantage, the F-117 was clearly the better value.

Yet, 30 years later, people are still deriding aircraft like the F-22, F-35, B-2, B-21, E-7, and the latest target of the “it costs too much” syndrome—the NGAD PCA—as “too expensive.” This focus on individual unit cost, to the exclusion of desired effects delivered per unit, is fundamentally flawed. Advanced generation technology affords huge operational advantages. As described earlier, during Operation Desert Storm, one F-117 could achieve what otherwise would have taken 19 non-stealth aircraft. That meant the F-117 delivered better value and was in fact a far more responsible choice from both a warfighting and fiscal set of perspectives. The stealth multiplier of the F-22 and F-35 is postulated to be on the order of twice that of the F-117, and in the case of the NGAD PCA, even higher. An aircraft viewed as “less expensive” is in fact quite costly if it takes a greater number of them to get the job done. In fact, its “affordability” is catastrophic if its low price point hobbles

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the ability to secure mission results.³⁵ That is what cost-per-effect is designed to measure. It is well past time that the DOD abandon bean counting exercises—such as “salami slice” cuts across all the services—and use cost-per-effect to make optimal decisions on the best use of their resources.³⁶

It is important to understand the capacity required to deter or fight against China, Russia, Iran, and North Korea, singularly or in conjunction with one another, in simultaneous conflict. The force must have sufficiency in numbers, as necessary forces cannot be in different places at the same time. Technology enables some reduction in force size, but the cuts in the Air Force to date have been too deep. As a result, the capacity needed to deter conflict no longer exists.

Conclusion—A Crisis That Needs Correction

Today, the Department of the Air Force is in a crisis. The nation has ignored it for too long. President Trump must prioritize fixing the Department of the Air Force, or else the consequences will be disastrous for the nation’s defense. Service leaders have asked for help. It is time to answer their calls. The cost of this effort will require an increase of at least \$45 billion annually to begin recovering the Air Force’s decline and adequately fund the growth of the Space Force.

Victory in conflict is never a guarantee. What might come from losing a war with China? Are we willing to give up Guam or retrench from foreign basing if defeated? Both results would have far-reaching negative impacts on the United States’ standing in the world and our long-term economic strength. We would be subject to the wills of other great powers versus driving the global agenda as a great power. Yet, these may be the consequences of the continued decline in the capacity of the U.S. Air Force and the insufficient resourcing of the U.S. Space Force.

To see what happens when a nation lacks dominant air and space capabilities, one need only look at the Russia–Ukraine war. Without prevailing air and space forces, both sides are left to grind out a ground war in a race to see which side runs out of forces and weapons first. That is not the American way of war.

The typical American citizen believes that our military forces are dominant and unbeatable—that used to be true, but it is no longer the case. If President Trump is to manifest his theme of peace through strength, then he must reverse the nosedive that the Air Force is in and provide the Space Force the money, people, and organizational authorities necessary to fight and win in space. There is no more time left for delay. The fixes must start now, or we may very well lose the next war. 🇺🇸

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