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## Policy Papers



### Key Points

Compared to the Army and Department of the Navy, the Air Force absorbed the largest budget cuts between the end of the Cold War and the September 2001 terrorist attacks on the United States.

In the context of great power competition, the defense “build-up” that ensued in the years after 9/11 was a hollow one for the Air Force.

The services are not equally funded. When pass-through funding is removed, Air Force budget resources are about 23% of the defense budget, well shy of the other service shares.

The Air Force’s new aircraft procurement strategy must include rapid and complete program buys, and force structure divestitures must be concurrent with new aircraft deliveries.

## Moving Toward the Air Force We Need?

### Assessing Air Force Budget Trends

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#### Abstract

In the years following the Cold War, and again following the 2007 troop surge to Iraq, the size of the Air Force and its corresponding modernization accounts were dramatically cut. After decades of hard use and too little investment, the service now faces mission demands that far outpace available capacity.

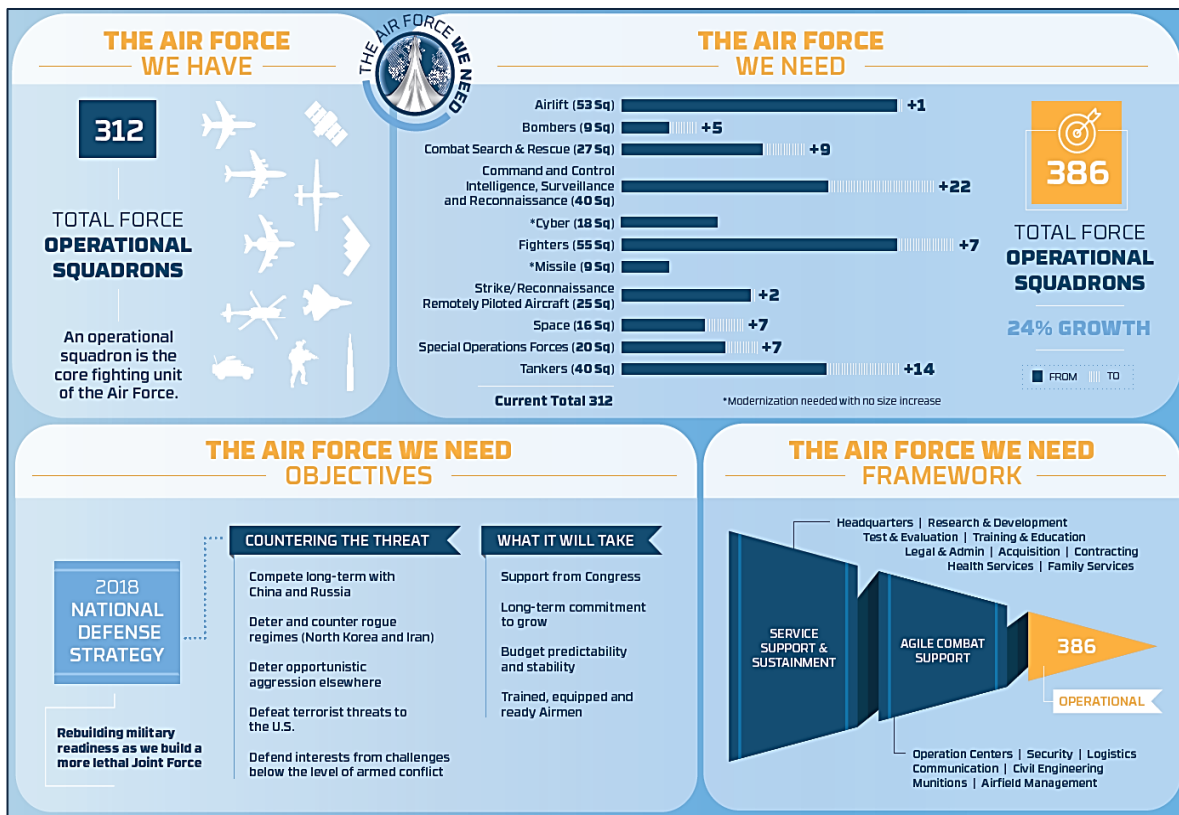
A myth exists that the Air Force is funded equally with the other services. Analysis shows that DoD only allocates 23% of the defense budget to the Air Force’s “blue” budget, which excludes pass-through funding for programs that the service does not control (mostly national intelligence-related programs). An assessment of budget trends reveals the nation has dramatically underfunded the Air Force, especially when compared to the other services.

These conclusions correspond to congressionally mandated force structure assessments called for in Section 1064 of the 2018 National Defense Authorization Act. The assessments concluded the Air Force must grow its capacity to meet strategy-driven requirements. This cannot be done absent increased resources.

## Introduction

In September 2018, the Secretary of the Air Force unveiled initial results of a congressionally mandated study on a future aircraft inventory needed to support the *2018 National Defense Strategy (NDS)*.<sup>1</sup> The study concluded the Air Force should aggressively modernize and increase the size of its force structure by 2030 in order to align with the Department of Defense’s (DOD’s) strategic shift toward engaging in long-term great power competition. The Air Force’s “The Air Force We Need” (see Figure 1), was subsequently supported by the findings of two additional studies mandated by Section 1064 of the 2018 National Defense Authorization Act.<sup>2,3</sup>

Figure 1: U.S. Air Force graphic from “The Air Force We Need”



<sup>1</sup> Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military’s Competitive Edge* (Washington, DC: DOD, January 2018).

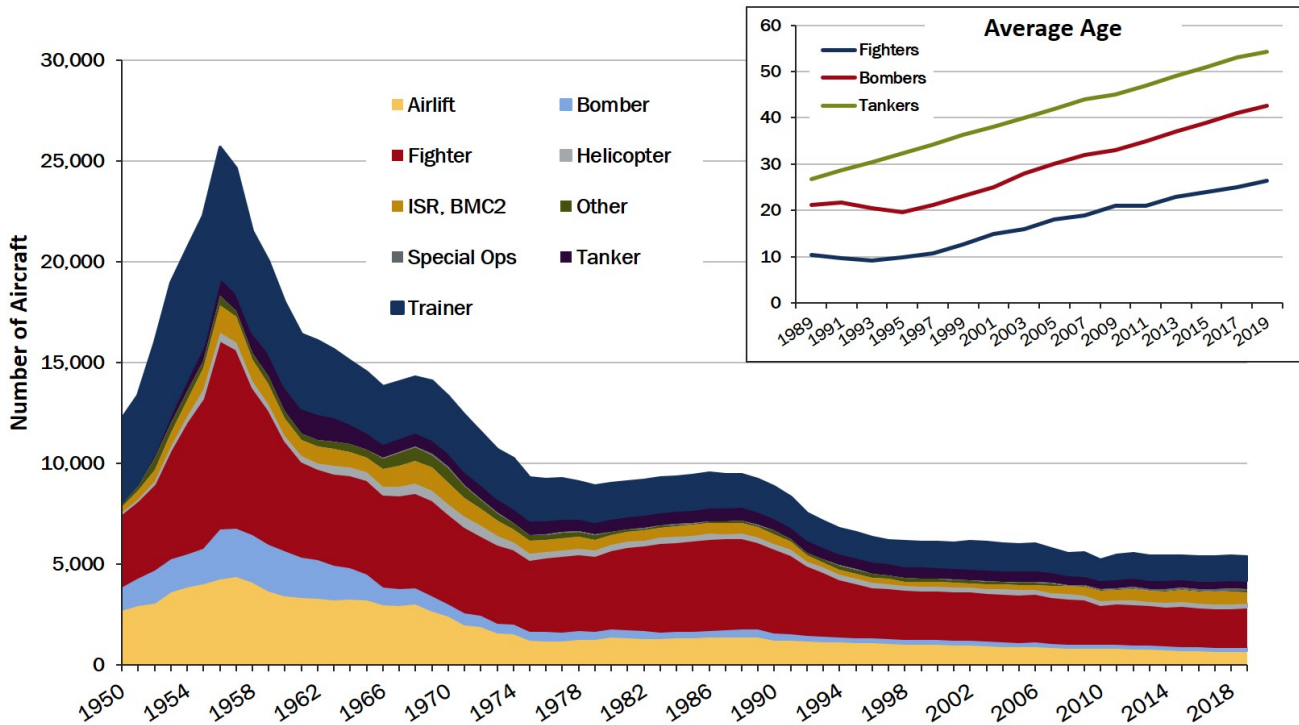
<sup>2</sup> A short unclassified summary of the Air Force’s report was provided to the Congress: Headquarters United States Air Force, “Fiscal Year 2018 National Defense Authorization Act (NDAA) Section 1064 Study: Aircraft Inventories for the Air Force,” March 2019. The MITRE Corporation and the Center for Strategic and Budgetary Assessments also completed studies as directed by the 2018 NDAA. For an unclassified executive summary of MITRE’s report, see: “MITRE U.S. Air Force Aircraft Inventory Study Executive Summary,” 2019, <http://www.airforcemag.com/DocumentFile/Documents/2019/MITRE-USAF-Aircraft-Inventory-Study.pdf>. For CSBA’s report, see: Mark Gunzinger, Carl Rehberg, Jacob Cohn, Timothy A. Walton, and Lukas Autenried, *An Air Force for an Era of Great Power Competition* (Washington DC: CSBA, 2019).

<sup>3</sup> The graphic in Figure 1 was released by the Air Force. See U.S. Air Force, “The Air Force We Need: 386 Operational Squadrons,” September 17, 2018, <https://www.af.mil/News/Article-Display/Article/1635070/the-air-force-we-need-386-operational-squadrons/>.

All three studies agreed the Air Force’s current force structure is too small to support the *2018 National Defense Strategy* and lacks the degree of survivability and lethality needed to deter or if necessary, defeat future great power aggression.

This bleak reality is not the result of any single decision but is instead the net effect of actions that extend back over a number of years. This report addresses three major budget trends that contributed to an aircraft inventory that is now the smallest and oldest the Air Force has ever operated (see Figure 2).<sup>4</sup>

Figure 2: Trends in the size and average age of the Air Force’s aircraft inventory



When it comes to generating combat power, ample fiscal investment is a key to success. The Air Force has long struggled in this regard. Compared to the Army and Navy, the Air Force absorbed the largest cuts to its annual budgets in the 12 years between the end of the Cold War and the September 2001 terrorist attacks on the United States. On top of this, Obama Administration defense reductions and the 2011 Budget Control Act (BCA) created another hole in the service’s budget that it filled by further cutting its force structure, modernization programs, and end strength. While subsequent congressional agreements provided some relief from the 2011 BCA’s budget caps, available funds were still far lower than those required for maintaining a healthy force. Finally, plus-ups to the Air Force’s

<sup>4</sup> Originally published in Gunzinger, Rehberg, Cohn, Walton, and Autenried, *An Air Force for an Era of Great Power Competition*, 2019.

budget over the last few years, while significant, have not approached levels needed to compensate for the quarter century-long post-Cold War defense modernization holiday.

### *The Cost of Austerity: A Bomber Force Eroded Too Far*

The B-1's eroded mission readiness, the prematurely truncated B-2 program, and decisions to delay a next-generation bomber program serve to illustrate how underfunding can nearly break a critical part of our nation's military.

The Air Force possessed 422 bombers in 1988. After three decades of budget pressures, just 157 bombers now remain in the force. Yet demand for bombers is on the rise. One Air Force commander recently explained that the mission-driven need for bombers has risen 1,100 percent in the last five years. Range, payload, versatility, and survivability—the attributes that define bombers—are capabilities that U.S. leaders require to deter and if necessary, respond to threats posed by Iran, North Korea, Russia and China.

Today's bomber force is so old and so small that these policy options are at risk. B-52s comprise over half of the present bomber inventory, all of which pre-date the Cuban Missile Crisis. Over a third of the fleet—62 aircraft—are Reagan Administration-era B-1s. Flown hard in combat over the past two decades, the B-1's recent history is evidence of the growing demand for bombers. Less than 10 of 62 B-1 aircraft were fully mission capable during the summer of 2019. Only the 20 B-2 stealth bombers now in the force were delivered after the end of the Cold War. Although the B-2 program was meant to recapitalize the bomber force, post-Cold War budget reductions capped production at 21 aircraft, far short of the original acquisition target of more than 100 bombers.

Air Force leaders have long recognized the service's bomber shortfall and the vulnerabilities it creates. Former Air Force Chief of Staff Gen T. Michael Moseley launched a program to deliver a next-generation bomber before 2020. This effort was cancelled in 2009 due to budget pressures and competing needs driven by wars in Afghanistan and Iraq. The nation's need for a new penetrating bomber did not, however, disappear. In 2014, a request for proposal for a new bomber design was launched that eventually resulted in the B-21 program. Due to this delay, new operational B-21s will not begin to enter the inventory until the latter half of the 2020s. The initial production run of 100 aircraft will take years to acquire given available fiscal resources, with some estimates suggesting 2040 as a realistic date. In the meantime, the demand for bombers will continue to be borne by the current small fleet of aging aircraft.

## **Understanding the Air Force's "Blue Budget"**

To understand these trends, it is important to know the difference between the Air Force's annual topline budget, which includes all funding appropriated by the Congress to the Air Force for a given fiscal year, and what is called the Air Force's "blue budget," which excludes pass-through funding for programs the service does not control (mostly national intelligence-related).<sup>5</sup> As shown in Table 1, the Air Force's pass-through funding in the Fiscal Year (FY) 2020 President's Budget exceeded

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<sup>5</sup> The Air Force has no control over this pass-through money, it simply transmits this part of its budget to fund a variety of intelligence community programs, special operations forces, and health care programs. The preponderance of the service's non-blue budget is for intelligence community programs. See Adam J. Hebert, "Beyond the Blue," *Air Force Magazine*, April 2010, p. 22, <http://www.airforcemag.com/MagazineArchive/Pages/2010/April%202010/0410issbf.aspx>. This article provides a good description of the Air Force's non-discretionary pass-through funding.

\$39 billion, which was just over 19 percent of its total obligational authority (TOA).<sup>6</sup> This \$39 billion is equivalent to the last four years of total Air Force new aircraft procurement funding. Put another way, \$39 billion could procure over 400 new fifth-generation F-35As.

Table 1: Breakdown of Air Force total obligational authority (TOA) requested in the FY2020 President’s Budget

Budget Category	Air Force FY2020 TOA Request	Air Force Non-Blue “Pass-through” TOA	Air Force Blue Only TOA
<b>Military Personnel</b>	\$40.325 billion	\$5.11 billion	\$35.215 billion
<b>Operations &amp; Maintenance (O&amp;M)</b>	\$65.013 billion	\$0.852 billion	\$64.161 billion
<b>Procurement</b>	\$50.087 billion	\$22.386 billion	\$27.701 billion
<b>Research, Development, Test, and Evaluation (RDT&amp;E)</b>	\$46.066 billion	\$10.623 billion	\$35.443 billion
<b>Military Construction, Family Housing, other</b>	\$3.265 billion	\$0.213 billion	\$3.052 billion
<b>Total TOA</b>	<b>\$204.757 billion</b>	<b>\$39.196 billion</b>	<b>\$165.571 billion</b>

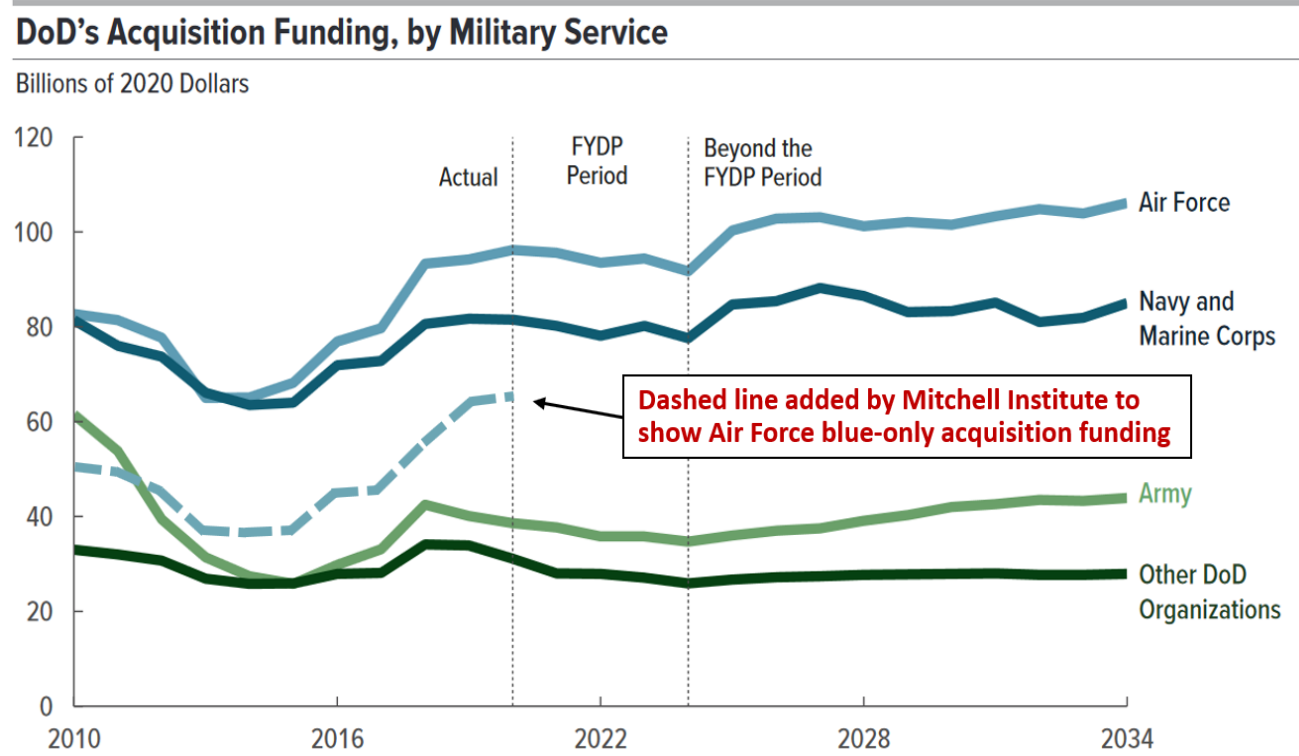
Government reports and budget documents that fail to distinguish between the Air Force’s blue and non-blue budgets can create a skewed picture of resources it actually has to develop and build next-generation aircraft and other major weapon systems.<sup>7</sup> Too often, individuals assume the services each receive one-third of the defense budget allocated to the military departments—a third for the Air Force, a third for the Army, and a third for the Department of the Navy (which includes the U.S. Marine Corps). This creates a false impression of how Air Force acquisition funding (procurement plus RDT&E funding) compares to the acquisition budgets of the other services. For instance, an August 2019 report by the Congressional Budget Office included a chart that showed the Air Force’s

<sup>6</sup> Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY2020, Green Book* (Washington, DC: DOD, May 2019), [https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2020/FY20\\_Green\\_Book.pdf](https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2020/FY20_Green_Book.pdf); and FY2020 Air Force blue-only data from [https://www.saffm.hq.af.mil/Portals/84/documents/FY20/FY20%20PB%20Rollout%20Brief\\_v33%20print.pdf?ver=2019-03-18-085417-400](https://www.saffm.hq.af.mil/Portals/84/documents/FY20/FY20%20PB%20Rollout%20Brief_v33%20print.pdf?ver=2019-03-18-085417-400).

<sup>7</sup> A primary DOD database used to assess service and DOD budgets is called the Green Book. The Green Book does not depict Air Force’s blue-only data. For the FY2020 Green Book, see: Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY2020, Green Book* (Washington, DC: DOD, May 2019), [https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2020/FY20\\_Green\\_Book.pdf](https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2020/FY20_Green_Book.pdf). For another report that fails to identify the Air Force’s blue-only budget data, see: Congressional Budget Office, *Long-Term Implications of the 2020 Future Years Defense Program* (Washington, DC: CBO, August 2019), <https://www.cbo.gov/publication/55500>. Figure 6 on page 17 of the CBO report compares FY2010-FY2034 acquisition funding for the four services and other DOD organizations without distinguishing between the Air Force’s blue-and non-blue acquisition budget. The report does make a small note about “classified activities” in the Air Force’s budget. A similar CBO report for the 2017 Future Years Defense Program broke out the Air Force’s non-blue, “Activities Outside The Air Force” acquisition budget so its magnitude was clear. See: Congressional Budget Office, *An Analysis of the Obama Administration’s Final Future Years Defense Program* (Washington, DC: CBO, April 2017), Figure 3-5, p. 41, <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/52450-fydp.pdf>.

acquisition funding as far outstripping the acquisition budgets of the other services (see Figure 3).<sup>8</sup> The inserted dashed line on the chart illustrates the Air Force’s blue-only acquisition funding, which is well below the Department of the Navy’s FY2010-2020 acquisition budgets.

Figure 3: This Congressional Budget Office chart compares service acquisition budget trends since 2010, and projected budgets to 2034



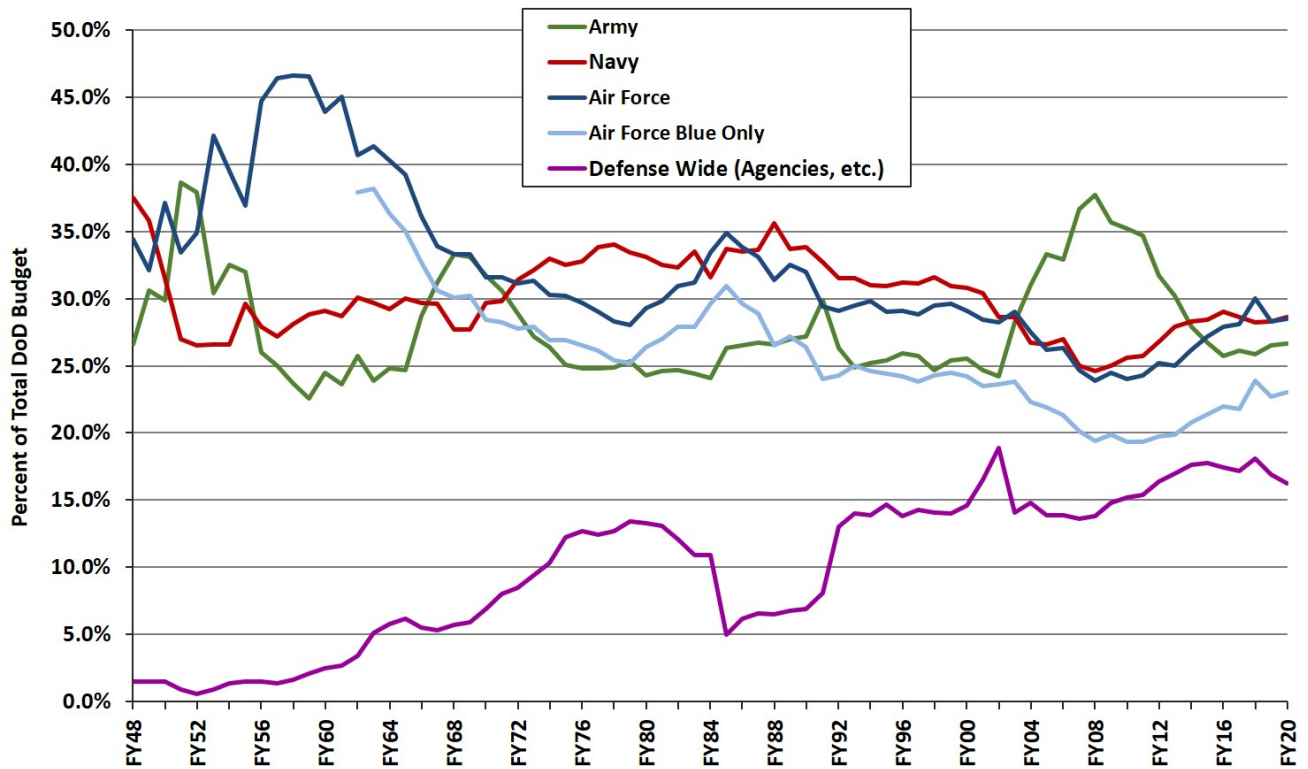
From a total budget perspective, DOD allocated about 23 percent (\$165.5 billion) of its proposed FY2020 TOA to the Air Force if the service’s non-discretionary funding is excluded, as shown by the light blue line in Figure 4.<sup>9</sup>

<sup>8</sup> Figure from Congressional Budget Office, *Long-Term Implications of the 2020 Future Years Defense Program* (Washington, DC: CBO, August 2019), p. 17, <https://www.cbo.gov/publication/55500>.

<sup>9</sup> Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY 2020, Green Book* (Washington, DC: Department of Defense, May 2019), Table 6-3. Air Force blue-only data was provided by the Air Force.



Figure 4: Comparing U.S. military service budgets from FY1948 to FY2020, including war funding or overseas contingency operations funding



This is significantly less than the 28.6 percent (\$191.4 billion) of the total FY2020 DOD budget for the Navy and the 26.7 percent (\$205.6 billion) for the Army. Unless otherwise noted, this report will focus on trends in the Air Force’s blue budget.

## The Air Force Absorbed the Largest Cuts to its Budget After the Cold War

If fully appropriated, the \$165.6 billion requested for the Air Force in the FY2020 President’s Budget (PB) will be the service’s tenth largest budget since FY1962. While this would help fund long-overdue recapitalization and modernization programs, it is just a start at filling the resource holes created by previous administration defense budget cuts that were intended to reap a “peace dividend” in the aftermath of the Cold War. Similar to the other services, many of the Air Force’s premiere modernization programs were curtailed, delayed, or outright cancelled in pursuit of this so-called dividend. However, it is important to highlight that the hardships were not shared equitably. During the 13-year period between FY1989 and FY2001, the Air Force absorbed the largest cuts as a percentage of its TOA in four of the five budget categories illustrated in Table 2.<sup>10</sup> Most importantly, this included huge cuts to its procurement budget.

Table 2: Changes in the military services’ total obligational authority (TOA) by percentage, using Constant Year (CY) 2020 dollars, from 1989 to 2001 (the red shaded areas indicate the most significant reductions by percentage)

Budget Category	Department of the Air Force	Department of the Navy	Department of the Army
<b>Military Personnel</b>	-37.2	-31.6	-34.4
<b>Operations &amp; Maintenance</b>	-1.4	-26.3	-24.6
<b>Procurement</b>	-52.0	-32.0	-35.9
<b>RDT&amp;E</b>	-39.7	-17.7	-8.0
<b>Total Change in TOA</b>	<b>-31.6</b>	-28.2	-29.2

Overall, the Navy received the smallest cuts in three of the five categories listed in Table 2 and the largest cut in one category, O&M. The Army received the smallest cut in a single category, RDT&E. The Air Force absorbed the largest decrease by percentage to its RDT&E and overall procurement budgets.<sup>11</sup> The nadir of this first phase of the post-Cold War procurement holiday occurred in

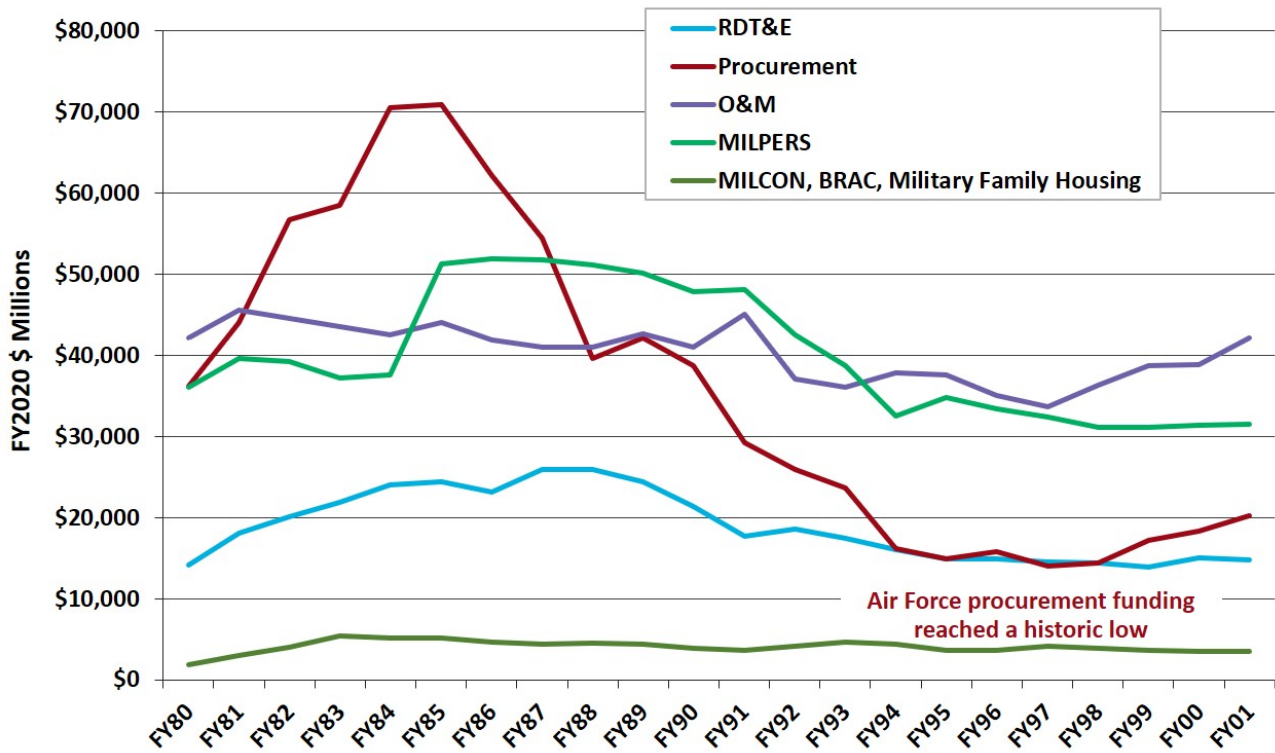
<sup>10</sup> Air Force blue-only data in Table 2 was provided to the authors by the Air Force. Other Table 2 data is from Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY 2020, Green Book*, Table 6-16 (Army), Table 6-17 (Navy), and Table 6-18 (Air Force). Table 6-18 reports the Air Force’s TOA without distinguishing between its blue and non-blue TOA.

<sup>11</sup> The Air Force’s total procurement budget includes funding to buy new aircraft, missiles, space systems, and other procurement. The aircraft procurement category is further broken into funding for new aircraft; modifications to in-service aircraft; aircraft support equipment, spares and parts; and aircraft facilities. New aircraft procurement is further divided into sub-categories such as procurement funding for combat, airlift, training, and other aircraft. See: United States Air Force, “Air Force Justification Book Volume 1 of 2 Aircraft Procurement, Air Force Vol-1,” March 2019, [https://www.saffm.hq.af.mil/Portals/84/documents/FY20/PROCUREMENT/FY20\\_PB\\_3010\\_Aircraft\\_Vol-1.pdf?ver=2019-03-18-152821-713](https://www.saffm.hq.af.mil/Portals/84/documents/FY20/PROCUREMENT/FY20_PB_3010_Aircraft_Vol-1.pdf?ver=2019-03-18-152821-713).



FY1997-1998. As shown by Figure 5, the Air Force’s total procurement funding reached a historic low in this timeframe.<sup>12</sup>

Figure 5: Air Force blue budget appropriations by major category, Fiscal Years 1980-2001



While changes to the Air Force’s TOA presented in Figure 5 highlight the growing gap in its modernization portfolio, comparing trends with the other services presents an even clearer picture. The Air Force’s TOA dropped by 31.6 percent over the FY1989 to FY2001 period, which is close to the 28.3 percent and 29.2 percent cuts to the Navy’s and Army’s TOA respectively. However, assessing changes by major budget categories reveal this near-parity was largely the result of the 1.4 percent reduction to the Air Force’s O&M budget over this period, which was much smaller compared to the 26.3 percent decrease to the Navy’s O&M funding and 24.6 percent decrease in the Army’s O&M. This disparity reflected the Air Force’s need for O&M to sustain its high operations tempo (OPTEMPO) in the 1990s to enforce two no-fly zones over Iraq, support NATO’s 1999 air war against Serbia, and provide forces for other operations.<sup>13</sup> It is also worth pointing out that the Air Force’s O&M requirements remained high during this period despite major cuts to the size of its

<sup>12</sup> The Air Force’s procurement TOA averaged \$53.4 billion from FY1948 to FY1961 (in CY2020 dollars). Air Force blue-only data was provided by the Air Force.

<sup>13</sup> These are illustrative themes and do not reflect a comprehensive analysis of the O&M budget during that time. Air Force O&M has other major elements besides funding to support flying operations, including civilian pay and installation support. O&M is one of the more complicated appropriations in DOD and the Air Force.

force structure during the 1990s.<sup>14</sup> A 2018 report by the Mitchell Institute indicated the service lost about half of its force structure after 1991:

*As the Vietnam War wound down, the service's force posture declined to a level of roughly 12,000 aircraft and ICBMs. Except for a slight growth during the Reagan years, it stayed at that level until 1991. The next drop was even more precipitous. With the collapse of the Soviet Union and reductions ordered under the "Base Force" plan of Army Gen Colin Powell, then Chairman of the Joint Chiefs of Staff, USAF force structure shrank quickly to approximately 6,500 aircraft and ICBMs.<sup>15</sup>*

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<sup>14</sup> For a summary of forces structure and end strength cuts that came from the 1989-1991 Base Force Review, DOD's 1993 Bottom-up Review, and its 1997 Quadrennial Defense Review, see Mark Gunzinger, *Shaping America's Future Military: Toward A New Force Planning Construct* (Washington, DC: Center for Strategic and Budgetary Assessments, 2013). DOD continued to prioritize R&D funding after the Cold War to ensure new weapon systems would be ready to enter development when required and when resources were available. Funding research and development programs had the added benefit of keeping the defense industrial base warm.

<sup>15</sup> Col. James C. Ruehrmund Jr. USAF (Ret.) and Dr. Christopher J. Bowie, *Arsenal of Airpower: USAF Aircraft Inventory 1950-2016* (Arlington, VA: Mitchell Institute for Aerospace Studies, Air Force Association, February 22, 2018), p. 3, <http://www.mitchellaerospacepower.org/single-post/2018/02/22/Arsenal-of-Airpower-USAF-Aircraft-Inventory-1950-2016>.

## FY2008 to FY2015: The Second Hit

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The defense budget increased dramatically following the September 2001 terrorist attacks on the United States. The Air Force received additional base budget and supplemental overseas contingency operations (OCO) funding to support its increased OPTEMPO and to procure capabilities needed for operations in Afghanistan, Iraq, and against terrorist extremist groups in other regions. Most of the service's aircraft procurement funding was allocated toward expanding the size of its remotely piloted aircraft (RPA) fleet to meet combatant commanders' demands for ISR and light strike capacity, and to recapitalize portions of its tactical and strategic airlift force. A preponderance of new aircraft that joined the inventory in this timeframe were better suited to operations in permissive environments, partly at the expense of major weapon systems for high-end conflicts such as the prematurely cancelled F-22 program. In the context of the *2018 National Defense Strategy*, it is fair to say that this period represented a hollow build-up for the Air Force (see Figure 6).<sup>16</sup> Funds were narrowly concentrated on counter-insurgency warfare priorities, with risk taken in mission areas that are now deemed essential in an era of renewed great power competition.

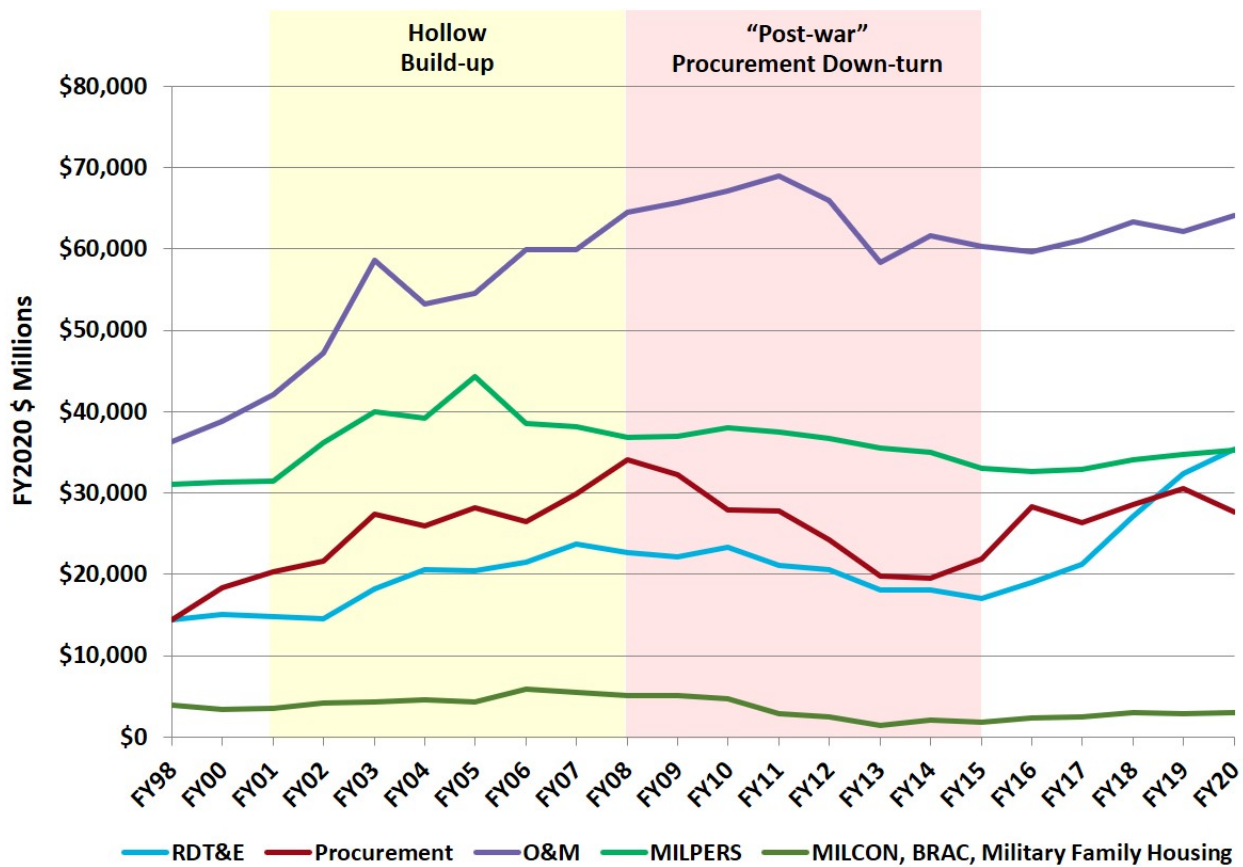
### ***The Cost of Austerity: New Mission Growth Without Sufficient Resources***

U.S. operations in Afghanistan and Iraq along with counterterrorism operations in other theaters created an insatiable demand for RPA beginning in the early 2000s. From 2004 through 2015, the Air Force grew the number of RPA combat air patrols it flew by 1,300 percent. This growth surge occurred without sufficient associated resources: the acquisition of new RPA was funded, but their personnel and other support elements were not. The Air Force was required to provide these resources by cutting other elements of its budget and force structure, especially its fighter fleet. Air Force aircraft were prematurely retired, too few pilots were trained, and some aircraft sustainment accounts were underfunded. This under-resourcing helped precipitate a pilot shortfall, and a smaller overall fighter force was required to operate at a high tempo that ultimately degraded its lifespan. This is a classic case of how mission growth unaccompanied by necessary resources can be a lethal combination that can hollow out a force.

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<sup>16</sup> Jason Ukman, "Wars Not The Only Reason For Rise In Defense Spending," *The Washington Post*, July 21, 2001, [https://www.washingtonpost.com/blogs/checkpoint-washington/post/wars-not-only-reason-for-rise-in-defense-spending/2011/07/20/gIQAiWxYRI\\_blog.html](https://www.washingtonpost.com/blogs/checkpoint-washington/post/wars-not-only-reason-for-rise-in-defense-spending/2011/07/20/gIQAiWxYRI_blog.html). The article quotes an assessment by Todd Harrison from the Center for Strategic and Budgetary Assessments that identifies this period as a hollow build-up. Figure 6 data is Air Force blue-only data provided by the Air Force.

Figure 6: FY2000-2015 Air Force blue budget appropriations by major category



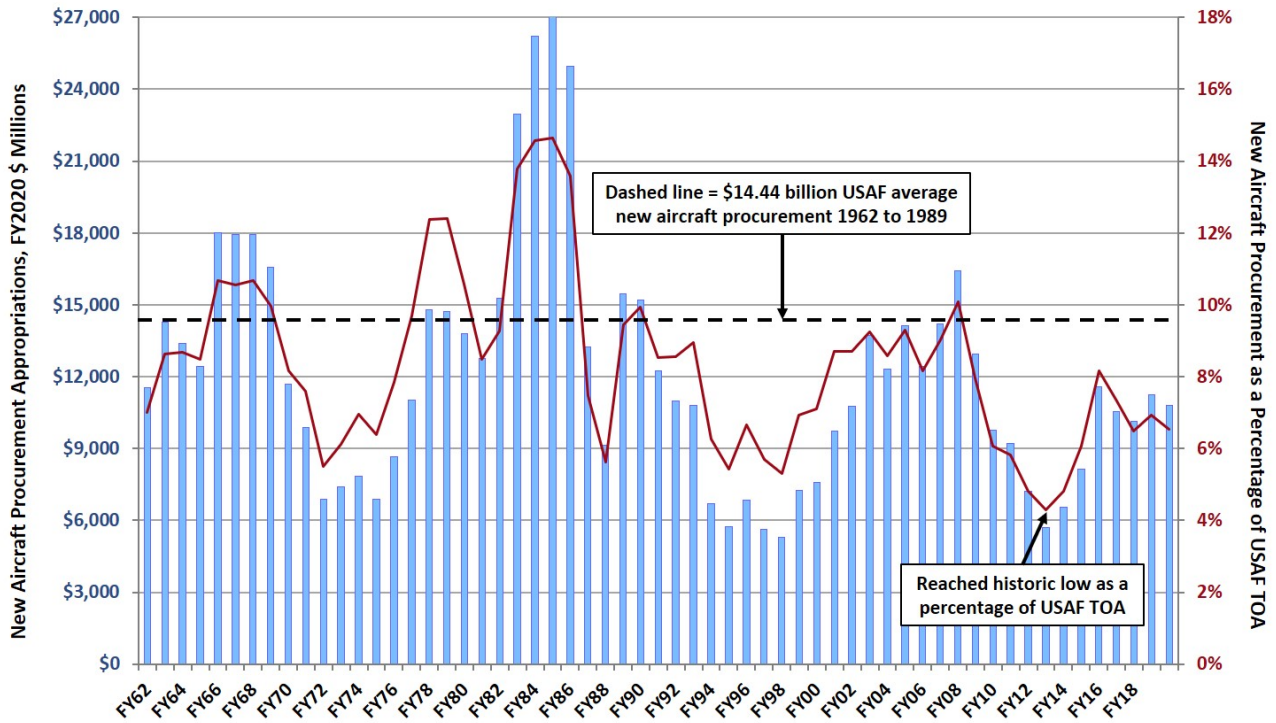
Beginning in FY2008, the Air Force’s overall procurement, RDT&E, and military personnel accounts all declined. This trend was opposite its O&M funding, which increased for the next few years until it reached its highest level in the Air Force’s history. Again, this O&M trend was not unreasonable, given the combination of the Air Force’s sustained high OPTEMPO, increased cost of maintaining and operating an aging force, and other factors.

By FY2013, the Air Force’s funding for new aircraft reached the third lowest level in the service’s history and the lowest level ever as a percentage (4.3 percent) of its topline budget as illustrated by Figure 7.<sup>17</sup> This was primarily due to implementation of the 2011 Budget Control Act. At the same time, funding for the Air Force’s O&M and military personnel programs began to flatten due to increased concerns over its near-term readiness.<sup>18</sup>

<sup>17</sup> Although the 2011 BCA began to impact military service budgets in FY2012, its full brunt was felt by the services in FY2013. See Todd Harrison, *Chaos and Uncertainty: The FY 2014 Defense Budget and Beyond*, (Washington, DC: Center for Strategic and Budgetary Assessments, 2013). Figure 7 data is Air Force blue-only data provided by the Air Force.

<sup>18</sup> A significant amount of Air Force personnel costs (e.g., health care programs, civilian personnel, and contractor support), are outside of its MILPERS appropriations.

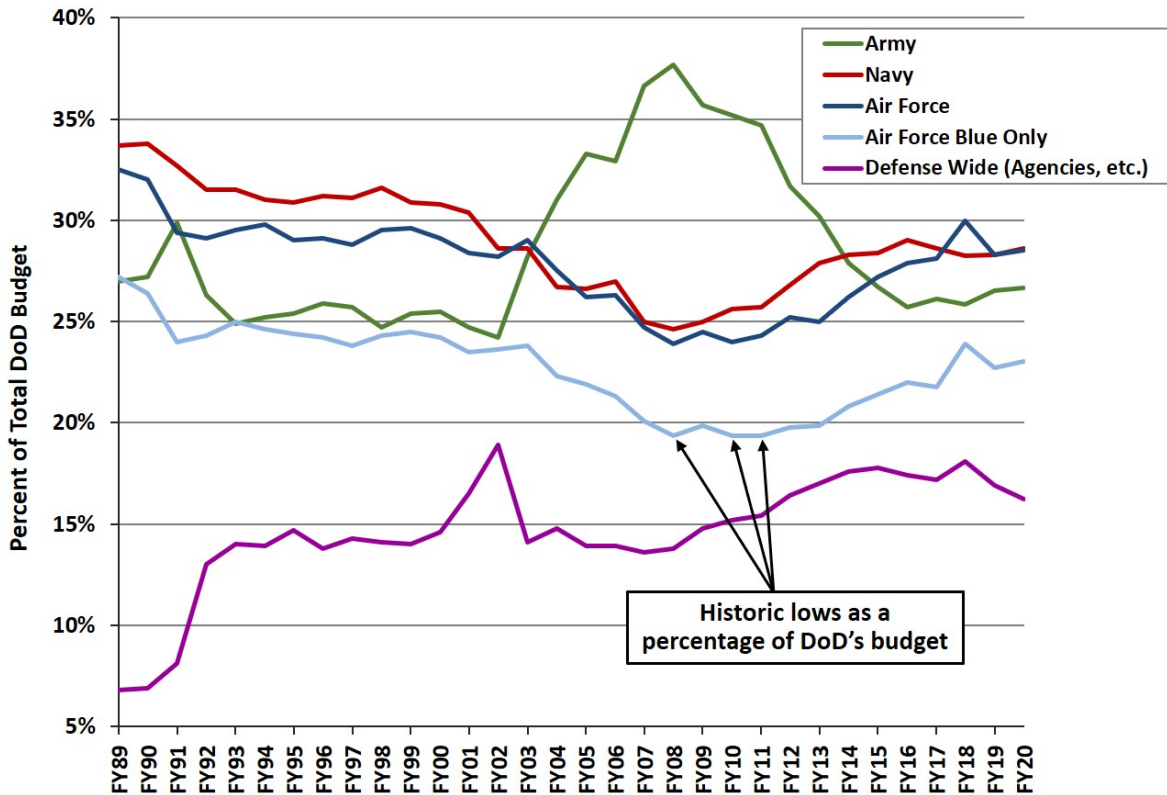
Figure 7: Trends in the Air Force's aircraft procurement funding, FY1962-2020



Overall, from FY2008 to FY2011 the Air Force received its lowest share of the defense budget since the Eisenhower Administration. In FY2008, FY2010, and FY2011 the Air Force's percentage of the defense budget was 19.4, 19.4, and 19.3 percent respectively, as shown in Figure 8.<sup>19</sup> No other military service has reached such a low percentage.

<sup>19</sup> Figure 8 data is from the Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY 2020, Green Book*, Table 6-3, Air Force blue-only data provided by the Air Force.

Figure 8: Low points in the Air Force's share of the defense budget



For context, the Army reached its lowest share of 22.6 percent in FY1959, and the Navy's reached its low point of 24.6 percent in FY2008.

The Air Force's blue budget has since rebounded, reaching a little over 20.8 percent in FY2014 and an estimated 23 percent in the FY2020 President's Budget. Nevertheless, 23 percent is still well below the Air Force's average of 25.8 percent of DOD's TOA from 1962-2020 and 28.7 percent during the FY1981-1985 high point of President Reagan's defense build-up.<sup>20</sup> This budget increase will not fill the hole created by 25 years of modernization austerity.

### Toward the Air Force We Need?

The *2018 National Defense Strategy* outlines DOD's intent to shift toward creating a future force that is more lethal, survivable, and capable of defeating great power aggression in contested environments: "We cannot expect success fighting tomorrow's conflicts with yesterday's weapons or equipment."<sup>21</sup>

<sup>20</sup> Figure 8 data is from the Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY 2020, Green Book*, Table 6-3, Air Force blue-only data provided by the Air Force.

<sup>21</sup> DOD, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, p. 6. The report of the National Defense Strategy Commission established by Congress to assess the *2018 National Defense Strategy* called for three percent to five percent real annual growth in overall defense spending to execute the strategy. See Tony Bertuca, "A tale of two—or three—toplines emerges as budget battle consumes defense bill," *Inside Defense*, June 14, 2019, <https://insidedefense.com/dailynews/tale-two-or-three-toplines-emerges-budget-battle-consumes-defense-bill>.



There have been numerous assessments on what the Air Force could or should do to align with the new defense strategy. In particular, reports submitted to Congress in early 2019 on three major studies made a number of recommendations for increasing the size and improving the capabilities of the Air Force's aircraft inventory. Reports authored by the Center for Strategic and Budgetary Assessments (CSBA) and the MITRE Corporation both recommended the Air Force should:

- Increase investment in its long-range capabilities, including investments to grow the size of its tanker fleet;
- Increase the size of the nation's bomber force, procure more than 100 stealth B-21s, and do not cut current bombers (B-2s, B-1s, and B-52s) until significant numbers of B-21s are operational;
- Increase annual procurement of F-35A fifth-generation stealth fighters and not cut F-35A investments in the near-term to pay for other programs; and
- Consider adapting the T-X, the Air Force's new pilot training aircraft, to support homeland defense, which could free up fifth-generation fighters to prepare for missions for which they were designed.

Other reports, notably one released by the National Defense Strategy Commission and another by the Mitchell Institute, made similar recommendations.<sup>22</sup>

## Assessing Trends in the Air Force's Procurement Funding

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Although analysis of the Air Force's budget should not be the only means used to assess progress toward its desired future force, it can help illustrate trends that could inform national defense policy and resource decisionmakers.<sup>23</sup> As mentioned previously, several areas of the Air Force's budget have grown over the last few years. Areas like O&M represent very near-term interests. What matters at a macro level is that long-standing downward trends in capital investment accounts have only been mitigated, not reversed, and there are new trends that should be of concern. In particular, the Air

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<sup>22</sup> Eric Edelman, Gary Roughead, Christine Fox, Thomas Mahnken, Kathleen Hicks, Michael McCord, Jack Keane, Michael Morell, Andrew Krepinevich, Anne Patterson, Jon Kyl, Roger Zakheim, *Providing for the Common Defense: The Assessment and Recommendations of the National Defense Strategy Commission* (Washington, DC: United States Institute of Peace, 2018), <https://www.usip.org/sites/default/files/2018-11/providing-for-the-common-defense.pdf>; and Lt Gen David A. Deptula, USAF (Ret.) and Douglas A. Birkey, "The Force We Need: Key Factors Shaping the Air Force for the Future," *Mitchell Institute Policy Papers*, Vol 19 (Arlington, VA: Mitchell Institute for Aerospace Studies, March 2019), [http://docs.wixstatic.com/ugd/a2dd91\\_228a279b89274af593e5e3e68d4c8ec6.pdf](http://docs.wixstatic.com/ugd/a2dd91_228a279b89274af593e5e3e68d4c8ec6.pdf).

<sup>23</sup> Adebayo Adedeji, "Funding Implications of Impending Retirements of Air Force Aircraft," Congressional Budget Office, June 29, 2019, [https://insidedefense.com/sites/insidedefense.com/files/documents/2019/jul/07012019\\_cbo.pdf](https://insidedefense.com/sites/insidedefense.com/files/documents/2019/jul/07012019_cbo.pdf). See also the Congressional Budget Office, *The Cost of Replacing Today's Air Force Fleet* (Washington, DC: CBO, December 2018), [www.cbo.gov/publication/54657](http://www.cbo.gov/publication/54657). Authors' note: We disagree with the CBO's conclusion that the fix for the Air Force's future procurement "bow wave" is to cut its new aircraft procurement. We also believe that some of the assumptions in this report helped drive CBO estimates that are open to question. For example, the report's estimate of the Next Generation Air Dominance program (NGAD) is speculation, and assumptions on new Air Force tankers seem to be premature, since a new analysis of alternatives (AOA) in FY2020 will take a look at alternatives for the Air Force after it procures its first 179 KC-46A tankers.

Force’s overall procurement budget remains below its historical average and well below the level that it reached during the Reagan Administration (see Table 3).<sup>24</sup>

Table 3: Air Force overall procurement funding and new aircraft procurement funding in CY2020 dollars

	Air Force Overall Procurement Budgets	Air Force Aircraft Procurement Budgets
<b>FY1962-2020 Annual Average</b>	<b>\$33.343 billion</b>	<b>\$12.137 billion</b>
<b>FY1981-1986 Annual Average (Reagan build-up)</b>	<b>\$60.486 billion</b>	<b>\$21.802 billion</b>
<b>FY2013</b>	\$19.777 billion	\$5.713 billion
<b>FY2014</b>	\$19.515 billion	\$6.557 billion
<b>FY2015</b>	\$21.939 billion	\$8.147 billion
<b>FY2016</b>	\$28.280 billion	\$11.567 billion
<b>FY2017</b>	\$26.281 billion	\$10.548 billion
<b>FY2018</b>	\$28.518 billion	\$10.120 billion
<b>FY2019</b>	\$30.483 billion	\$11.251 billion
<b>FY2020</b>	\$27.701 billion	\$10.805 billion

} **Flat**

The Air Force’s overall procurement funding is 16.7 percent of its total FY2020 budget, which is significantly less than its historic average of 24 percent.<sup>25</sup> The \$10.8 billion requested for new Air Force aircraft in FY2020 is also well below the \$14.4 billion average per year from FY1962 to FY1989, and the \$23.6 billion annual average during the peak years of DOD’s last real defense build-up.<sup>26</sup> In other words, the Air Force’s FY2020 aircraft procurement budget is about half the FY1981 to FY1986 annual average. This is a stunning statistic considering the increased cost to acquire new, more sophisticated military aircraft today compared to the Reagan years.

<sup>24</sup> Air Force blue-only FY2020 data is from an Air Force FY2020 budget overview briefing by the Secretary of the Air Force Deputy Assistant Secretary for Budget: Maj Gen John Fletcher and Ms. Carolyn Gleason, “Budget Overview,” March 2019, [https://www.saffm.hq.af.mil/Portals/84/documents/FY20/FY20%20PB%20Rollout%20Brief\\_v33%20print.pdf?ver=2019-03-18-085417-400](https://www.saffm.hq.af.mil/Portals/84/documents/FY20/FY20%20PB%20Rollout%20Brief_v33%20print.pdf?ver=2019-03-18-085417-400). Historical Air Force blue-only TOA was provided by the Air Force.

<sup>25</sup> Since Fiscal Year 1948.

<sup>26</sup> All dollar amounts are in Constant Year 2020 dollars.

### ***The Cost of Austerity: Budget-Driven Retirements and Program Cancellations***

For the past 20 years, the Air Force and DOD repeatedly sought to retire large quantities of aircraft and cancel production lines. While their reasons for doing so vary, the overarching driver almost always tracks back to the budget. Attempts to cancel the C-130J production line; retire aircraft like the U-2, RQ-4 Global Hawk, and A-10; the shortsighted termination of F-22 and C-17 production; or the many retirements of fighters and bombers are indicative of DOD and Air Force efforts to scale back significant portions of the service's aircraft inventory in an attempt to free-up near-term budget.

However, retiring aircraft doesn't retire real-world demand for them. Unless a mission requirement is wholly eliminated, incremental force cuts yield predictable outcomes: remaining like-type aircraft are flown harder to fill the capacity shortfall, and fleet readiness eventually implodes. Herculean repairs and stop-gap new production efforts often drive costs higher than the costs that would result from better long-range fleet management and procurement decisions.

The Air Force's air superiority fleet provides one such example. When F-22 production was prematurely cancelled, the Air Force had to extend the service life of its existing F-15C/D fighters before it had done the requisite testing and engineering. At the same time, F-35 full-scale production, which could have helped replace some aging F-15s, was repeatedly delayed. With the release of the 2019 budget, the Air Force announced that it had to procure new-build F-15s because existing aircraft were worn out. In other words, a key portion of the fighter force was broken after too many compounding cuts to new aircraft procurement and major legacy aircraft aging and service life issues.

The nation needs more Air Force peer-fighting force capacity, which is why Secretary of the Air Force Heather Wilson announced in September 2018 that the Air Force needed to grow to 386 operational squadrons. However, a year later, Acting Secretary of the Air Force Mathew Donovan announced: "We need to shift funding and allegiance from legacy programs we can no longer afford due to their incompatibility with future battlefields and into capabilities and systems that the nation requires for victory." Said another way, it sounds like the Air Force may be headed toward another round of budget-driven force divestitures unless the capabilities to which the acting Secretary is referring can be readily replaced with new systems.

As Table 3 illustrates, the Air Force's overall and aircraft procurement budgets have remained relatively flat since FY2016. They are also well below the levels needed for the Air Force to recapitalize and modernize its aircraft inventory. Based on the aggregate average cost of new military aircraft, the Air Force may require an additional \$10 billion or more per year in aircraft procurement alone for an extended period.<sup>27</sup> Not including trainers and small unmanned aerial vehicles (UAVs), the Air Force is still only acquiring about 100 total aircraft per year, and less than 70 combat aircraft per year. By comparison, the Air Force procured an average of about 280 total aircraft per year and over 220 combat aircraft per year from FY1982 through FY1989.<sup>28</sup> Compared to previous defense build-ups,

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<sup>27</sup> This is supported by previous Air Force long-range plans and studies and the three Air Force aircraft inventory studies completed by MITRE, CSBA, and the Air Force in 2019. Previous Air Force long-range plans have stated the Air Force needed to spend about \$10B more a year on average for new aircraft procurement. Rehberg helped lead the development of the Air Force's 2005-2006 long-range plan and its 2007-2008 plan. See also: Congressional Budget Office, *The Cost of Replacing Today's Air Force Fleet* (Washington, DC: CBO, December 2018). The report concludes the Air Force will require approximately \$20 to \$25 billion (CY2020 \$) funding or about \$10 billion to \$15 billion more to procure new aircraft. Note: the authors do not agree with CBO assumptions on the NGAD program's cost and mix of aircraft purchased.

<sup>28</sup> Air Force Deputy Assistant Secretary for Budget: Maj Gen John Fletcher and Ms Carolyn Gleason, "Budget Overview," March 2019, slide 12, [https://www.saffm.hq.af.mil/Portals/84/documents/FY20/FY20%20PB%20Rollout%20Brief\\_v33%20print.pdf?ver=2019-03-18-085417-400%22](https://www.saffm.hq.af.mil/Portals/84/documents/FY20/FY20%20PB%20Rollout%20Brief_v33%20print.pdf?ver=2019-03-18-085417-400%22). Historical Air Force aircraft procurement numbers were provided by the Air Force.

this is barely above levels reached during DOD’s post-Cold War procurement holidays. The Air Force should be buying more than about double that number, possibly over 200 total new aircraft per year.<sup>29</sup> Although the Air Force has varied on its estimate of the number of fighters it should procure every year to maintain a healthy force, its latest threshold is a sustained rate of at least 72 fighters per year.<sup>30</sup>

By way of comparison, the Air Force’s new aircraft procurement budget has lagged well below the Department of the Navy’s new aircraft procurement budget for an extended period of time (see Table 4).<sup>31</sup>

Table 4: Comparing U.S. Air Force and U.S. Navy new aircraft procurement funding (in CY2020 dollars)

	Department of the Air Force New Aircraft Procurement	Department of the Navy New Aircraft Procurement
<b>FY2013</b>	\$5.713 billion	\$15.129 billion
<b>FY2014</b>	\$6.557 billion	\$13.823 billion
<b>FY2015</b>	\$8.147 billion	\$11.978 billion
<b>FY2016</b>	\$11.567 billion	\$14.359 billion
<b>FY2017</b>	\$10.548 billion	\$12.669 billion
<b>FY2018</b>	\$10.120 billion	\$15.072 billion
<b>FY2019</b>	\$11.251 billion	\$15.095 billion
<b>FY2020</b>	\$10.805 billion	\$12.118 billion

Since the turn of the century, the Navy has purchased more combat aircraft than the Air Force (see Figure 9).<sup>32</sup> In fact, the Department of the Navy procured more new aircraft from FY2008 to FY2019

<sup>29</sup> To recapitalize about 4,000 aircraft (the Air Force’s aircraft inventory minus its training aircraft and Operational Support Airlift/VIP Special Air Mission aircraft) over a 20-year period, the service will need to purchase about 200 aircraft per year.

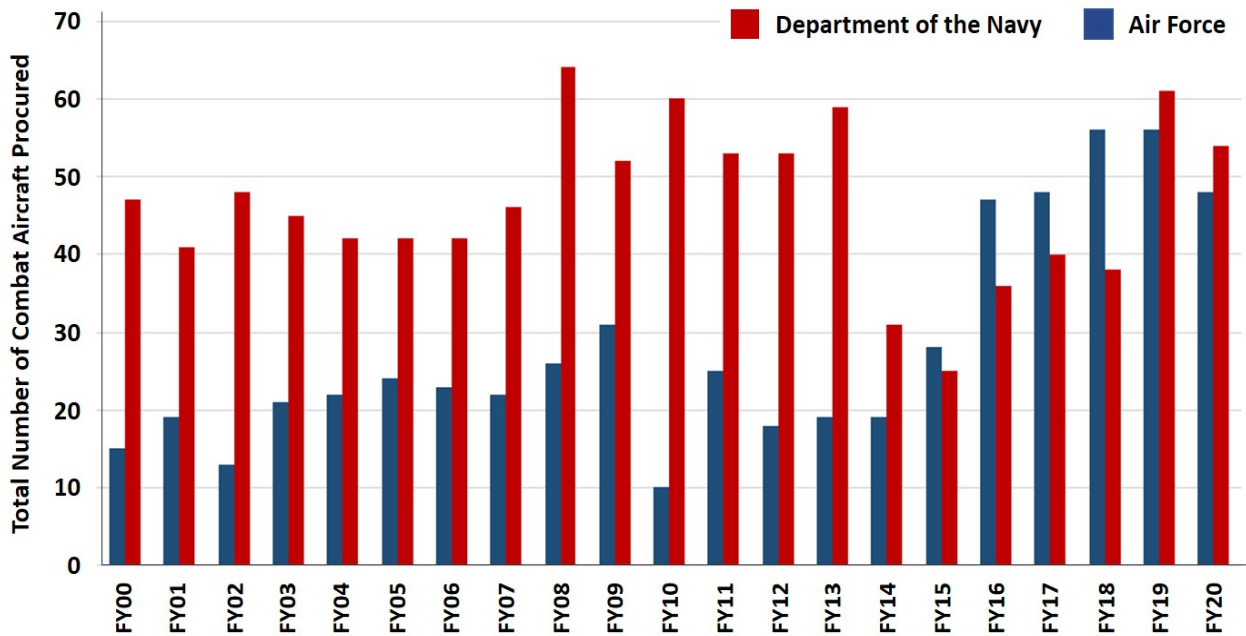
<sup>30</sup> “In order to arrest the retirement rate and grow to the future requirement, the Air Force would need to procure 72 new aircraft each year.” Dr. William P. Roper, Jr., Air Force Gen James M. Holmes, and Air Force Maj Gen David S. Nahom, “Presentation To The House Armed Services Committee, Subcommittee on Tactical Air and Land Forces United States House of Representatives,” May 2, 2019, [https://insidedefense.com/sites/insidedefense.com/files/documents/2019/may/05062019\\_af1.pdf](https://insidedefense.com/sites/insidedefense.com/files/documents/2019/may/05062019_af1.pdf).

<sup>31</sup> Table 4 data is appropriated or enacted data except for FY2020 which is FY2020 Presidents Budget (PB) data. Data were compiled from Department of the Navy and Department of the Air Force Aircraft Procurement (P-1) documents found in their respective service procurement justification sections published by the Office of the Under Secretary of Defense (Comptroller), <https://comptroller.defense.gov/Budget-Materials/> and at the U.S. Air Force and U.S. Navy Budget Justification links. Air Force Budget Program 10 (BP10—New Aircraft Procurement) was the primary data source provided by the Air Force.

<sup>32</sup> Figure 9 data was compiled from Department of the Navy and Department of the Air Force Aircraft Procurement (P-1) documents found in their respective service procurement justification sections published by the Office of the Under Secretary of Defense (Comptroller), <https://comptroller.defense.gov/Budget-Materials/>. Also available at the U.S. Air Force and U.S. Navy budget justification links.

than all types of aircraft bought by the Air Force over the same period.<sup>33</sup> This is expected to be the same in FY2020.

Figure 9: Comparison of the number of combat aircraft procured by the Air Force and Navy, FY2000 to FY2020



Although the picture has improved somewhat in favor of the Air Force over the last couple of years, the service is still buying fewer combat aircraft each year than the Navy. Common sense dictates the opposite should be true. In fact, it should not even be close given the Navy now has about 38.7 percent of DOD’s total inventory of 3,560 fighter/attack and bomber aircraft, compared to the Air Force which has 61.3 percent of the inventory.<sup>34</sup> The breakout for fighter aircraft is about the same. The Department of the Navy has 40.6 percent of DOD’s FY2020 fighter/attack aircraft compared to the Air Force’s 59.4 percent.

### Assessing Trends in the Air Force’s RDT&E Funding

RDT&E funding trends can be another indicator of the Air Force’s progress toward modernizing its force structure. From FY1962 to FY2020, the Air Force’s blue budget RDT&E funding averaged about \$19.2 billion per year in CY2020 dollars, and was less volatile year-by-year compared to other Air Force budget areas. From FY1962 until the end of the peak years of the Reagan defense build-up, the Air Force’s annual RDT&E budget averaged about \$17.0 billion and it has since averaged just

<sup>33</sup> Data compiled from Department of the Navy and Department of the Air Force P-1 documents at <https://comptroller.defense.gov/Budget-Materials/>. The data excludes small tactical UAS (STUAS), target drones and the RQ-21 Blackjack.

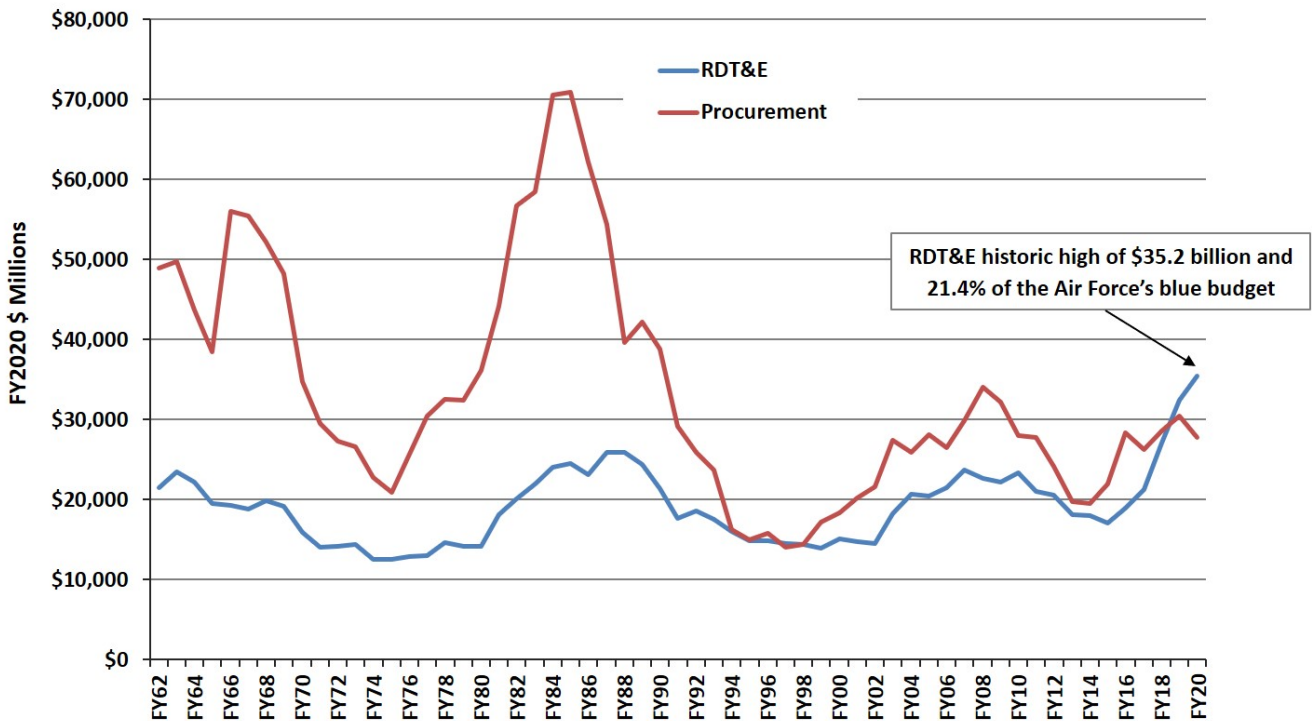
<sup>34</sup> Furthermore, the Navy’s total aircraft inventory is about 60 percent the size of the Air Force’s total inventory. DOD, *Annual Aviation Inventory and Funding Plan: Fiscal Years (FY) 2019-2048* (Washington, DC: DOD, March 2018) pp. 3-11, 26-27.

under \$20.2 billion per year.<sup>35</sup> This equates to approximately 14.5 percent of the Air Force’s budget over that period of time, with the lowest single-year percentage—12.3 percent—occurring in FY1980 just before the Reagan build-up. This historical low was tested in FY2015 when the Air Force’s RDT&E dropped to 12.7 percent of its budget.

After the Cold War, RDT&E increased as a percentage of the Air Force’s TOA due to the decision to forego procuring a generation of major new weapon systems (with exceptions), and increase RDT&E spending to help keep the defense industrial base warm and prepared to ramp-up new programs when needed.

Starting in FY2016, there has been nearly 100 percent growth in the Air Force’s RDT&E budget. The service’s FY2020 RDT&E is at its highest level ever—\$35.2 billion—and is also at an all-time high as a percentage of its blue budget (see Figure 10).<sup>36</sup>

Figure 10: Trends in the U.S. Air Force’s “blue only” RDT&E and procurement budgets



Recent RDT&E increases make sense given the need for the Air Force to develop new aircraft suitable for operations in increasingly contested environments, modernize two of the three legs of the U.S. nuclear triad, and develop hypersonic weapons, directed energy systems, space systems, and

<sup>35</sup> All budget numbers are in CY2020 dollars.

<sup>36</sup> Figure 10 is Air Force blue-only TOA provided by the Air Force.



autonomous technologies.<sup>37</sup> However, its procurement funding still lags, and the ratio of the Air Force's procurement to RDT&E funding is at a historic low.<sup>38</sup> In fact, FY2019 and FY2020 are the only two fiscal years where the Air Force's—or any service's for that matter—annual RDT&E funding exceeded its overall procurement budget.<sup>39</sup> Although this upturn in RDT&E resources is welcome and necessary, it must quickly translate to a significant increase in the procurement of new aircraft and other next-generation capabilities if the Air Force is to achieve its goal of fielding “The Air Force We Need.” Said more directly, new technologies will fail to deliver combat value unless they are purchased in operationally significant quantities.

## **A Constraining Factor: Growth in the Air Force's O&M Requirements**

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O&M appropriations fund critical Air Force operations and programs, including its aircraft flying hour program; Weapons Systems Support; most pay for Air Force civilians; contractor support; Facilities, Sustainment, Restoration and Modernization (FSRM); and the service's base operating support (BOS) portfolios.<sup>40</sup> In general, when overall Air Force TOA declines, O&M requirements are more stable or decline at a lesser rate. This is evident following the peak years of the Reagan Administration's defense build-up, during the budget downturn after the surge to Iraq, and after implementation of the 2011 BCA (see Figure 11).<sup>41</sup> Airplanes still need to fly to meet immediate mission demands.

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<sup>37</sup> Typically, the first two space systems for a new program are bought with RDT&E funding. Since many space systems have a small number of satellites in their constellations, space procurement funding can be weighted toward RDT&E.

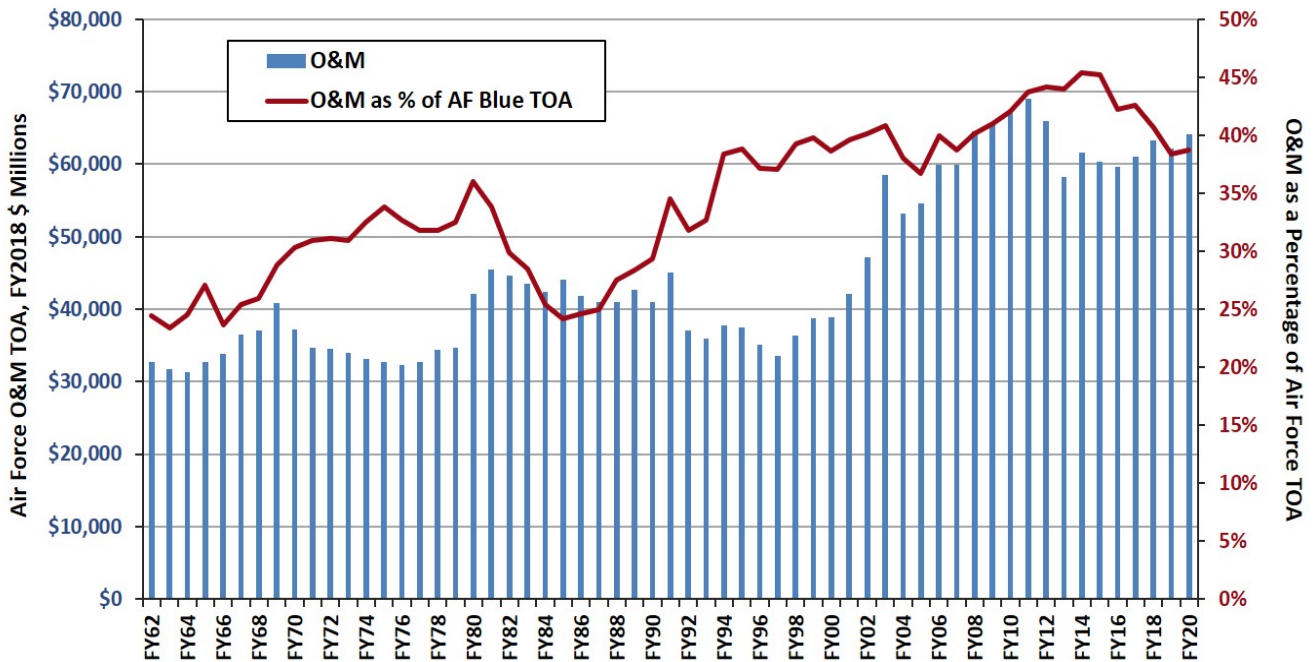
<sup>38</sup> Todd Harrison, *Chaos and Uncertainty: The FY 2014 Defense Budget and Beyond* (Washington, DC: CSBA, 2013), pp. 10-11. Although there have been several policy changes that require more RDT&E vice procurement, there are numerous examples where significant RDT&E never turns into actual procurement. This phenomenon is commonly called “oversubscription.” For an example of this see Bill Sweetman, “Money for Nothing,” *Aviation Week & Space Technology*, February 24, 2014, p. 16.

<sup>39</sup> Many of these programs are still years away from production and could be disrupted should there be significant reductions in the Air Force's future TOA.

<sup>40</sup> Consistent with previous sections in this report, historical O&M budget figures are in CY2020 dollars.

<sup>41</sup> See Todd Harrison, *Chaos and Uncertainty: The FY 14 Defense Budget and Beyond* (Washington, DC: Center for Strategic and Budgetary Assessments, 2013) pp. 4, 31. Figure 11 is Air Force blue-only TOA provided by the Air Force.

Figure 11: Trends in U.S. Air Force O&M funding, FY1962 to FY2020



One of the more significant trends in DOD’s budget over the last 20 years has been the rise of O&M as a percentage of its total spending. This is also true for the Air Force’s budget, despite the major force structure reductions it absorbed since the end of the Cold War.<sup>42</sup> From 1997 to 2011, the Air Force’s O&M budget experienced real growth of 105 percent while the Service’s Blue TOA grew by about 60 percent. In FY2011, the Air Force hit a historic high of \$69.0 billion in O&M spending.<sup>43</sup> The Air Force’s O&M budget exceeded 46 percent real growth from FY2001 to FY2011, exceeding the 37 percent growth in its blue TOA (from \$108.9 billion to \$149.0 billion) over the same period. While its O&M growth rate has moderated somewhat in the last couple of years, the \$64.2 billion for O&M in FY2020 is the Air Force’s sixth highest O&M budget ever. As a percentage, funding for O&M programs now constitutes almost 39 percent of the Air Force’s blue budget, well above its average of 28.7 percent for O&M from during most of the Cold War (from FY1962 to FY1989).

Since the Cold War, high OPTEMPO, significant growth in O&M requirements, priorities placed on improving near-term readiness and procuring aircraft to support counter-terror and counterinsurgency operations, and other factors helped to reduce resources available for the Air Force to develop and acquire new capabilities suitable to future high-end operations. It is unlikely the Air Force’s O&M requirements will soon decrease, since its aircraft operating costs continue to grow as the overall age of its aircraft fleet increases. In other words, this trend will not help the Air Force allocate more resources toward acquisition programs to develop “The Air Force We Need.”

<sup>42</sup> O&M is a complex appropriation, and there lots of reasons for this growth including the increased O&M costs of new aircraft the Air Force has procured.

<sup>43</sup> As a percentage of its blue TOA, the Air Force’s O&M budget hit a historic high of 45.4 percent in FY2014.

## Conclusion

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Historically, the United States has ramped up its defense spending when challenged by significant threats to its security, and then throttled it back as threats abated. To a significant extent, this pattern was broken for several generations during the Cold War.<sup>44</sup> Nevertheless, many elements of the U.S. military decreased in size after the Vietnam conflict as the capabilities of individual weapon systems improved. Except for a short period during the 1980s, the overall capacity (size) of U.S. forces, including the Air Force, steadily decreased. This trend continued at an accelerated pace after the Cold War. The Air Force alone lost nearly 65 percent of its combat air forces from 1960 to 2000, and another 22 percent since 2001.

Today, the Air Force is too small, too old, and lacks the degree of survivability needed to support the *2018 National Defense Strategy*. Without exaggeration, it now operates the smallest and oldest combat air force since it became a separate service in 1947. Its procurement of new bomber and fighter aircraft was nearly halted for a twenty-five-year period after the Cold War, with the exception of small, silver bullet fleets of 187 F-22s and 21 B-2s. Moreover, the Air Force had to extend the service lives of many of its combat aircraft with risk, further reducing resources available to procure new capabilities.<sup>45</sup>

The Air Force's procurement spending is not at a level that will allow it to modernize and grow its capacity to achieve the roughly 25 percent force structure called for by "The Air Force We Need." Although Air Force procurement funding improved somewhat beginning in FY2002, the build-up that ensued was a hollow one focused on niche counter-insurgency capabilities instead of capabilities for conflicts with peer adversaries. It was not an investment strategy focused on building a force that would be better capable of deterring and, if necessary, prevailing against great power aggression. More specifically, the Air Force's annual procurement of new aircraft is still flat (see green line in Figure 12) and is far less than half of what it received to buy new aircraft during America's last real defense build-up in the 1980s.<sup>46</sup>

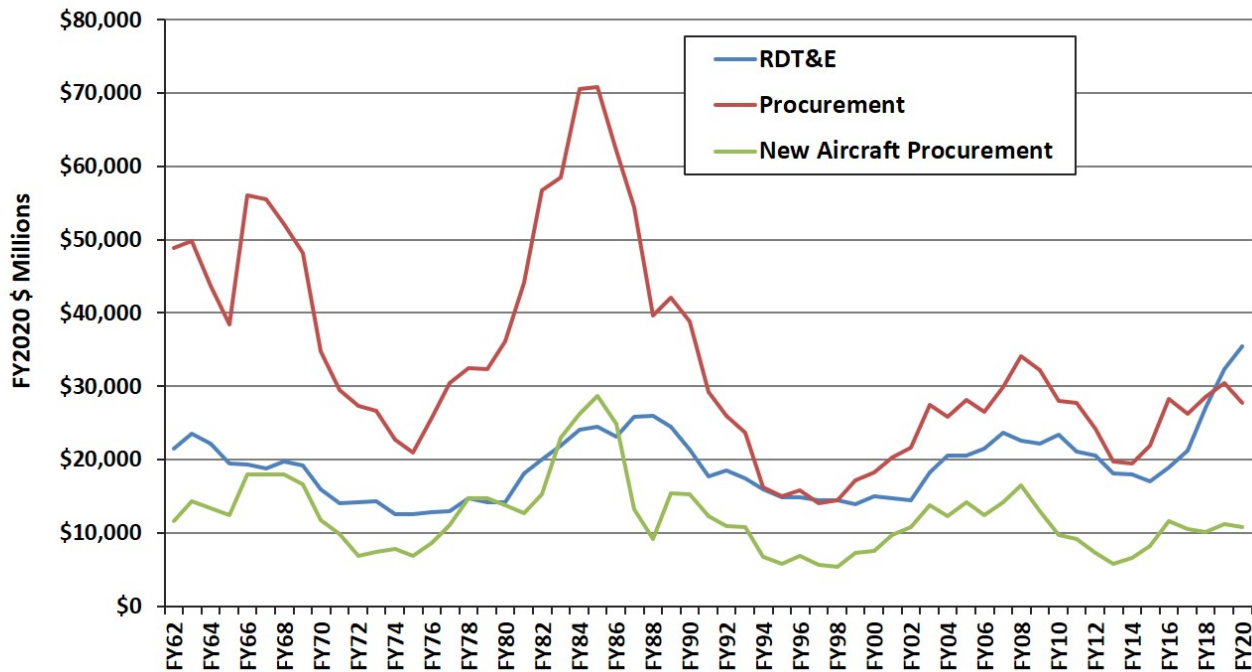
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<sup>44</sup> John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (NY: Oxford University Press, 2005). For more details on the impact of 1950s era budgets on the Air Force and other services, also see Samuel P. Huntington, *The Common Defense: Strategic Programs in National Politics* (New York: Columbia University Press, 1961). Others that have opined on budgets during the period include Steve Kosiak and Todd Harrison.

<sup>45</sup> Full Scale Fatigue Testing (FSFT). This is a test done to determine service life and it usually tested to two times the service life of the aircraft which is called Test Demonstrated Life or the life of the aircraft before structural failure during the test.

<sup>46</sup> Figure 12 is Air Force blue-only TOA provided by the Air Force.

Figure 12: U.S. Air Force RDT&E, procurement, and new aircraft procurement trends



In conclusion, the post-Cold War defense modernization holiday that lasted for decades is a major reason why the Air Force has a significant strategy-resource gap. The Air Force’s topline and modernization budgets dropped precipitously in the aftermath of the Cold War and again following the 2007-2008 troop surge to Iraq. After reaching a nadir in FY2013, the Air Force’s share of the defense budget slowly increased, aided in part by the Bipartisan Budget Act of 2015.<sup>47</sup> From FY2016-2020, the Air Force’s topline budget increased by about 3.7 percent real growth per year. While this modest increase helped the Air Force address some of its most critical readiness problems, it has not placed it on a stable trajectory toward fielding a modernized future force that will meet priorities of the *2018 National Defense Strategy*.

Building the Air Force our nation needs will require the administration and the U.S. Congress to work together to increase the service’s annual budget. That means its overall procurement should be increased, with new aircraft procurement as one of the highest priorities. Additionally, the long-standing trend of very high O&M growth should be reversed, and the more recent high levels of RDT&E must transition to the procurement of new aircraft and next-generation munitions they need to survive and achieve effects in future contested battlespaces. Absent a commitment to truly modernizing the Air Force, “The Air Force We Need” will remain out of reach—to the detriment of America’s security. ★

<sup>47</sup> Although other bipartisan budget acts had an impact on the DOD’s and Air Force’s toplines, they primarily reduced cuts that would have been required by the 2011 Budget Control Act. The Bipartisan Budget Act of 2015 changed the 2011 BCA’s budget caps to allow Congress to authorize an increased topline for DOD.

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