MITCHELL INSTITUTE for Aerospace Studies



The Future Fighter Force Our Nation Requires: Building a Bridge

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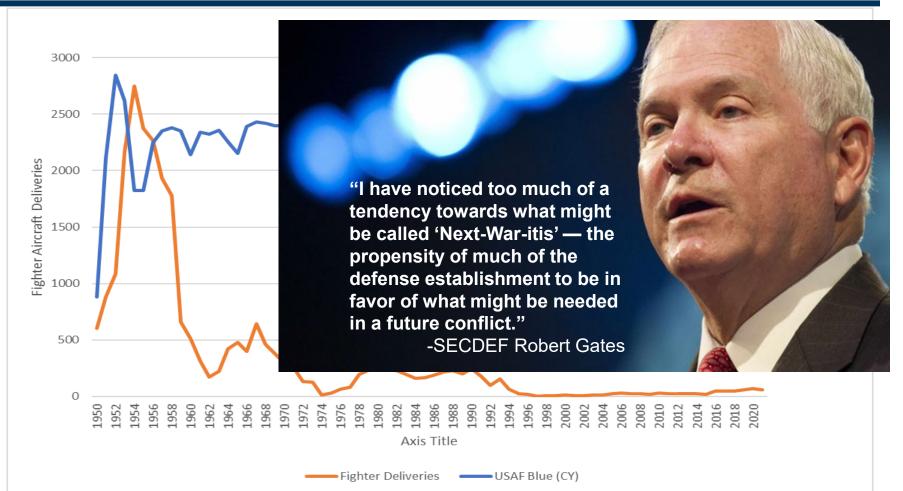
- 1. The threat to US ability to control the skies and therefore, conduct joint operations is growing.
- 2. The current Air Force fighter force is too old and too small.
- 3. Air Force resources are insufficient to fund future fighter force.
- 4. Because of this, the current Air Force plan defers real recapitalization and growth.

Mitchell Institute's report analyzes the current Air Force fighter vector within the context of the global security challenges between now and 2035: and recommends how the USAF can get to where it needs to go...

Air Force must grow its fifth-generation fighter capacity now – we cannot wait until 2035 to have credible fighter capacity



The Fighter Capability and Capacity Crisis has been Three Decades in the Making (how we got here)



USAF Fighter force is too old and too small to fulfill the National Defense Strategy and address global threats across the next decade



USAF Fighter Vector Deliberately Shrinks the Force

- Divest portions of the legacy fleet (F-16, A-10)
- Divest F-22 at the end of the decade
- Slow F-35 production until the end of the decade
- Start a low-cost, "4.5 or 5th gen minus" fighter
- Replace the F-15C with the F-15EX



"Future budget pressures will require the most difficult force structure decisions in generations. We cannot shy away from these decisions."

– Gen C.Q. Brown

In FY22, the Air Force proposed divesting 137 fighters, while only procuring 60 Over the next five years, the Air Force may retire 421 while only procuring 304

Current USAF plan takes significant risk by slowing fifth-generation replacement of legacy airframes at the same time it shrinks the force



RISK: Gapping the Force Now May Encourage the Exact Behavior We Seek to Deter

The Air Force is gapping its fighter inventory in both capability and capacity.

The future force must have additional reserves available to ensure operational density and tempo do not suffer from fighter battle damage and attrition. The nation simply cannot afford to gap its fighter force.



Gapping the Force Now May Provide China the Fait Accompli It Seeks

"Nothing we might theoretically achieve in 2035 and beyond is worth pursuing at the expense of China-credible capabilities we can realistically achieve no later than the mid-to-late 2020s." -Dr. Andrew Erickson, Professor of Strategy, U.S. Naval War College

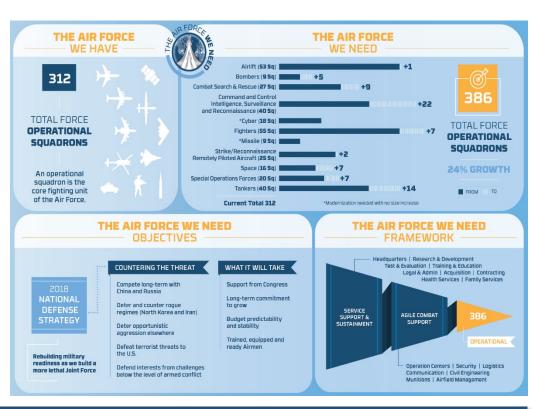


The Air Force is planning to budget, not strategy

Planning Force: the requisite capacity and capabilities the Air Force needs to fulfill the National Defense Strategy at a reasonable level of risk

Programmed Force: the assets the service has the funding to acquire and sustain

The gap between the Planning Force and the Programmed Force is **RISK**



Recommendation: Develop and publish an Air Force "planning force" to depict what the service actually needs to execute the National Defense Strategy.



A Problematic but Necessary Crutch: Extending the Life of Legacy Aircraft

USAF Legacy Plan – Partially divest older A-10 and F-16 to save money.





Retaining legacy aircraft preserves key elements of the enterprise that are not often considered in force structure decisions: pilot training, maintenance training, depot capacity, basing infrastructure, and more. The Air Force must balance its need to preserve the underlying support enterprise for future fighter capacity while it retires legacy iron. The best way to minimize this burden is to aggressively replace whole aircraft inventories on a one-for-one rate – they cannot gap combat capacity, or frankly, Air Force bases, units, and their supporting enterprise.

Recommendation: Extend legacy F-16s, while wholly divesting the F-15C/D, A-10C and F-15E inventories as F-35A production ramps up.



USAF Plan – Retain F-22 as a bridge to NGAD through the end of the decade.

The air dominance mission must not be gapped. Given a future planning force that must consider two peer competitors, retaining F-22 past initial fielding of NGAD may be necessary to meet the demands of both capability and capacity.

This may require the Air Force to reconsider its modernization policy regarding "sundowning" fleets to ensure F-22 long-term relevance.



Recommendation: Retain and continue to modernize the F-22 until the nation has the planning air dominance force capacity. Recommendation: Accelerate and remain steadfastly committed to the Next Generation Air Dominance program.



USAF Plan – slow F-35 procurement until Block 4 is in production and sustainment challenges are solved.



Every F-35 bought in FY24 onward will be able to fully host every Block 4 capability.

Every F-35A that is *not* bought between now and the end of the decade is one less Block 4 aircraft in the Air Force's 2030 inventory.

The Air Force will not be able to achieve its program goals until it assumes responsibility and authority from the JPO.

Recommendation: Immediately ramp-up F-35 production to offset F-15C/D, A-10C and F-15E retirements.

Recommendation: Close the F-35 Joint Program Office and transition program management to the services.



Develop an Alternative Air Force Fighter: A Controversial Proposal

USAF Plan – Start a low-cost, "4.5 or 5th gen minus," general purpose fighter.

A new-start fighter development program may afford the right longterm solution to provide capacity, capability, and affordability. However, such an aircraft must possess stealth, information-age sensors and processing capabilities, as well as the ability to engage throughout an advanced battlespace. Past programs like the YF-16 and F-117 can offer models of how to advance new designs and capabilities affordably.



Recommendation: Redirect F-15EX funding to immediately begin the development of an affordable, general-purpose, stealthy fighter program that will be relevant to the threats of the future.



USAF Plan – buy F-15EX to replace F-15C. The program of record is 144, but may increase if the Air Force uses F-15EX to replace the F-15E.

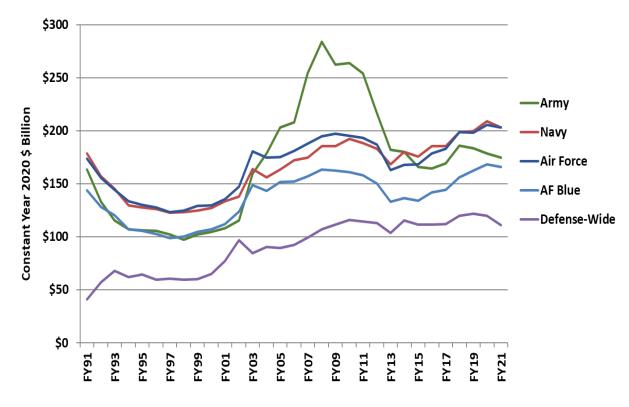
New-builds of older designs like the F-15EX will find themselves relegated to limited defensive roles in an era where the Air Force fighter inventory is too small to pursue a tiered force design. As a non-stealthy aircraft, the F-15EX cannot enter contested battlespace and will have to stand off in any engagement, limiting the advantage of newer generations of weapons.



Recommendation: Terminate F-15EX and use F-15EX funding to ramp F-35A production and begin a new, stealthy, general-purpose fighter design.

⁷ Takeaway: Resource to your Strategy

Pass-through disproportionately impacts Air Force procurement accounts



- FY22 pass-through funding was \$39
 Billion – nearly 20% of the Department of the Air Force's top line
- FY22 pass-through funding accounted for over 40% of Air Force procurement accounts

From 1991 – 2021, pass-through funds total \$942.6 Billion

Recommendation – OSD must remove pass-through from the DAF budget



- 1. Develop and publish an Air Force "planning force" to depict what the service actually needs to execute the National Defense Strategy.
- 2. Extend legacy F-16s, while wholly divesting the F-15C/D, A-10C and F-15E inventories as F-35A production ramps up.
- 3. Retain and continue to modernize the F-22 until the nation has the planning air dominance force capacity.
- 4. Experiment with and develop mission integration TTPs
- 5. Immediately ramp-up F-35 production to offset F-15C/D, A-10C and F-15E retirements.
- 6. Close the F-35 Joint Program Office and transition program management to the services.
- 7. Redirect F-15EX funding to immediately begin the development of an affordable, generalpurpose, stealthy fighter program that will be relevant to the threats of the future.
- 8. Terminate F-15EX and use F-15EX funding to ramp F-35A production and begin a new, stealthy, general-purpose fighter design.
- 9. OSD must remove pass-through from the DAF budget

The Air Force must accelerate the procurement of fifthgeneration fighters now to mitigate strategic risk, lower legacy costs, and build for the future

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