

Air Force F-15EX Eagle II Fighter Program

Updated November 3, 2021

Congressional Research Service

<https://crsreports.congress.gov>

R46801



Air Force F-15EX Eagle II Fighter Program

On March 11, 2021, the U.S. Air Force took delivery of its first F-15EX Eagle II fighter. The Eagle II program is intended to deliver 144 aircraft to replace aging F-15Cs, most of which are in the Air National Guard.

The Trump Administration’s FY2020 budget proposal included a request for \$1.1 billion to buy 8 F-15EX aircraft, the first procurement toward a planned initial buy of 144. This proposal represented a change from previous Air Force plans to procure only stealthy “fifth-generation” fighter aircraft.

The subsequent FY2021 defense budget proposal requested about \$1.27 billion in procurement funding for 12 Eagle IIs and \$133.5 million in advance procurement for future aircraft. The proposed budget also requested about \$159.8 million for F-15EX research and development.

FY2021 defense authorization act: The FY2021 defense authorization bill funded F-15EX procurement at \$1.24 billion, a reduction of \$27.6 million from the requested level, for “airframe excess to need.” The report accompanying the bill included language prohibiting divestment of F-15Cs in the European theater pending delivery of a plan to maintain equal or better air capability in that theater.

FY2021 defense appropriations bill: The final omnibus budget bill funded F-15EX procurement at \$1.23 billion for 12 aircraft, \$36.2 million below the Trump Administration’s request, citing “unit cost adjustment.”

R46801

November 3, 2021

Jeremiah Gertler
Specialist in Military
Aviation

Contents

Background	1
Congressional Action	2
Manufacturing Locations	3
Basing.....	3
Procurement Quantities	3
Planned Total Quantities	3
Annual Quantities	3
Initial Production	4
Why Is the Air Force Requesting F-15EXs?	4
Industrial Base Concerns.....	5
Does the F-15EX Replace the F-35?	6
Appropriate Fighter Mix	7
FY2021 Budget	8
Possible Questions for Congress	8
Procurement and Cost	9
Strategy and Oversight.....	9

Figures

Figure 1. F-15EX Eagle II	1
Figure 2. F-15EX Procurement Quantities 2020-2025	4

Tables

Table 1. F-15EX Funding	8
Table 2. FY2021 F-15EX Procurement.....	8

Contacts

Author Information.....	10
-------------------------	----

Background

On March 11, 2021, the U.S. Air Force took delivery of its first F-15EX Eagle II fighter (**Figure 1**).¹ The Eagle II program is intended to deliver 144 aircraft to replace aging F-15Cs, most of which are in the Air National Guard.

As the F-15 has formed the backbone of the Air Force's air superiority fleet and later its heavy strike capability, with units stationed around the country, Congress has devoted increasing attention to the jet's longevity and questions regarding its ongoing suitability for use as the fleet ages.

The Air Force received its first F-15 Eagle air superiority fighter in 1974. Subsequently, the F-15 evolved to encompass more roles, most notably with the deployment of the F-15E Strike Eagle in 1989. The F-15E added substantial air-to-ground capability, including a second cockpit for a weapons systems officer. The Air Force has 453 F-15s of all variants, the newest of which, an F-15E, was ordered in 2001. Following the last U.S. order, F-15s have continued in production for a variety of international customers, including (among others) Israel, Saudi Arabia, and Japan.

Figure 1. F-15EX Eagle II
First delivery to the U.S. Air Force



Source: U.S. Air Force photo/1st Lt. Karissa Rodriguez.

Current F-15s have stronger airframes and more advanced sensors, processors, and flight control systems than those in the U.S. fleet. Many also include conformal fuel tanks to extend range and increase payload. The F-15EX is based on the most advanced Eagles, currently in production for

¹ Ilka Cole and Samuel King Jr., *AF's first F-15EX arrives at Eglin AFB*, U.S. Air Force, Eglin Air Force Base Public Affairs, March 12, 2021, <https://www.af.mil/News/Article-Display/Article/2535577/afs-first-f-15ex-arrives-at-eglin-afb/>.

Qatar, and would add radar and other subsystems unique to the United States. Boeing says that the F-15EX would have 70% parts commonality with existing U.S. F-15s.² Recognizing that the aircraft is both a continuation but carries new capabilities, the Air Force has named the aircraft “Eagle II.”³

The F-15EX first flew at Boeing’s St. Louis, MO, plant on February 2, 2021.⁴

Congressional Action

The Trump Administration’s FY2020 budget proposal included a request for \$1.1 billion to buy 8 F-15EX aircraft, the first procurement toward a planned initial buy of 144.⁵ This proposal represented a change from previous Air Force plans to procure only stealthy “fifth-generation” fighter aircraft.

The subsequent FY2022 defense budget proposal requested about \$1.34 billion in procurement funding for 12 Eagle IIs and \$147.9 million in advance procurement for future aircraft. The proposed budget also requested about \$118.1 million for F-15EX research and development.

FY2021 defense authorization act: The FY2021 defense authorization bill funded F-15EX procurement at \$1.24 billion, a reduction of \$27.6 million from the requested level, for “airframe excess to need.” The report accompanying the bill included language prohibiting divestment of F-15Cs in the European theater pending delivery of a plan to maintain equal or better air capability in that theater.

FY2021 defense appropriations bill: The final omnibus budget bill funded F-15EX procurement at \$1.23 billion for 12 aircraft, \$36.2 million below the Trump Administration’s request, citing “unit cost adjustment.”

² Boeing briefing to CRS, March 6, 2019. See also John A. Tirpak, “F-15EX vs. F-35A,” *Air Force Magazine*, April 18, 2019, <https://www.airforcemag.com/article/f-15ex-vs-f-35a/>.

³ Valerie Insinna, “The F-15EX has a new name,” *Defense News*, April 7, 2021, <https://www.defensenews.com/air/2021/04/07/the-f-15ex-has-a-new-name/>. The practice of naming aircraft after predecessors can be confusing, and has varied purposes. The F-35 Lightning II was named to honor a World War II aircraft built by the same contractor, with no other connection between the two aircraft. In another approach from the early 1990s, the Boeing F/A-18E/F was named “Super Hornet” to emphasize its commonality with the preceding F-18A-D Hornet for program and budget purposes, despite the aircraft differing greatly. By contrast, the Eagle II name denotes an upgraded Eagle, using a largely common airframe but with different subsystems. The Eagle II has much more in common with the Eagle than the Super Hornet had to the Hornet.

⁴ Stefano D’Urso, “The New F-15EX Flies For The First Time Ahead Of The First Deliveries Later This Year,” *The Aviationist*, February 2, 2021, <https://theaviationist.com/2021/02/02/the-new-f-15ex-flies-for-the-first-time-ahead-of-the-first-deliveries-later-this-year/>. U.S. Air Force, 173rd Fighter Wing, “F-15EX completes first flight,” press release, February 11, 2021, <https://www.af.mil/News/Article-Display/Article/2500770/f-15ex-completes-first-flight/>.

⁵ Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Costs by Weapons System*, February 2020.

Manufacturing Locations

Boeing manufactures the F-15EX at Lambert Field in St. Louis, MO.⁶ General Electric's F110-GE-229 engine powers this variant, as well as other F-15 variants and some F-16s. The F110 is produced in Evendale, OH.⁷ ⁸ Raytheon builds the Eagle II's APG-82 radar in Forest, MS.

Basing

On August 14, 2020, the Air Force announced Kingsley Field, OR, would host the Air Force's F-15EX training schoolhouse beginning in 2022. The first operational F-15EX squadron is to be at Portland Air National Guard Base, OR, in 2023.

The Air Force has not yet decided whether the Air National Guard F-15s at Barnes Airport, MA; Fresno Yosemite Airport, CA; and Naval Air Station Joint Reserve Base New Orleans will be replaced with F-35As or F-15EXs.⁹

Procurement Quantities

Planned Total Quantities

The F-15EX program currently plans to deliver 144 aircraft: 2 funded through R&D, 6 through existing F-15 budget lines, and 136 through a dedicated F-15EX budget line. The F-15EX program is a middle-tier acquisition program but is expected to become a Major Defense Acquisition Program following the establishment of an Acquisition Program Baseline, which will declare the total number of aircraft included in the program. That total is not yet known, in part because the Air Force has yet to decide its desire for Eagle IIs to replace the current F-15E Strike Eagle fleet in addition to the planned F-15Cs.

Annual Quantities

The FY2021 Air Force budget request included a request to procure 12 F-15EXs in FY2021. DOD projects a production schedule that would reach 19 per year in FY2024. **Figure 2** shows F-15EX procurement quantities authorized through FY2020, requested procurement quantities for FY2021, and projected requests through the FYDP. The figures in the table do not include two aircraft procured with research and development funding.

⁶ This is the former McDonnell Douglas military aircraft factory. McDonnell Douglas, which designed the original F-15, merged with Boeing in 1997.

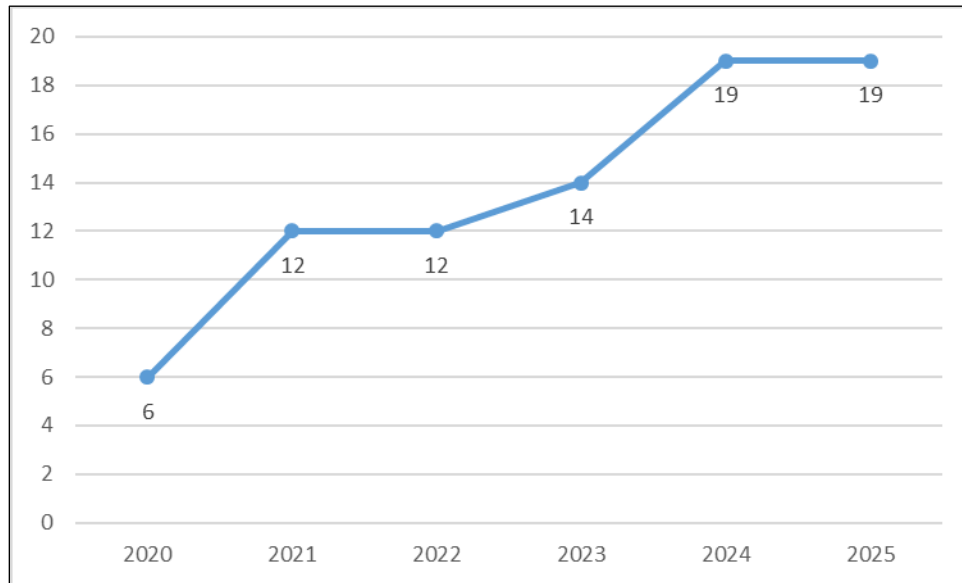
⁷ General Electric, "GE's F110 engine powers first flight of Boeing F-15EX," press release, February 2, 2021, <https://www.geaviation.com/press-release/military-engines/ges-f110-engine-powers-first-flight-boeing-f-15ex>.

⁸ Trevor Peters and Brian Planalp, "GE Aviation lands \$100m Air Force contract for F-15 engines," *Fox 19, Cincinnati*, July 6, 2020, <https://www.fox19.com/2020/07/06/ge-aviation-wins-air-force-contract/>.

⁹ Secretary of the Air Force Public Affairs, "Air Force announces Guard locations for F-35A, F-15EX," press release, August 14, 2020, <https://go.usa.gov/xHXRK>.

Figure 2. F-15EX Procurement Quantities 2020-2025

Figures shown are for production aircraft; table excludes two research and development aircraft



Source: Prepared by CRS based on DOD data. The program is expected to continue beyond the DOD five-year projection shown here.

Initial Production

F-15EXs are currently produced under a sole-source, indefinite-delivery/indefinite-quantity contract covering the first eight Eagle IIs. That initial contract is for \$1.2 billion; the contract for all 144 jets is estimated at \$22.9 billion.¹⁰

On October 29, 2021, the Air Force awarded GE Aviation, Cincinnati, OH, a \$1.6 billion firm-fixed-price contract to provide up to 329 engines for the F-15EX fleet. There was one other bidder for the award.¹¹ GE will supply the F110 engine used in all previous F-15EXs.¹²

On January 10, 2021, then-Under Secretary of Defense for Acquisition and Sustainment Ellen Lord signed a memorandum waiving many of the testing requirements for the F-15EX. DOD said it intends to use historical data from previous F-15 variants for elements common to the EX rather than testing anew.

Why Is the Air Force Requesting F-15EXs?

Air Force officials have offered several justifications for the F-15EX:

¹⁰ Jane Edwards, “Boeing Awarded Potential \$23B Air Force F-15EX Fighter Jet Production IDIQ,” *GovConWire*, July 14, 2020, <https://www.govconwire.com/2020/07/boeing-awarded-potential-23b-air-force-f-15ex-fighter-jet-production-idiq/>.

¹¹ Department of Defense, *Contracts For Oct. 29, 2021*, Washington, DC, October 29, 2021, <https://www.defense.gov/News/Contracts/Contract/Article/2827649/>. The contract announcement referenced the F110-GE-129; as previous F-15EXs had been equipped with the F110-GE-229, this may have been a typographical error.

¹² Brian Everstine, “GE Aviation Wins F-15EX Engine Contract,” *Aviation Week and Space Technology*, October 29, 2021, <https://aviationweek.com/defense-space/aircraft-propulsion/ge-aviation-wins-f-15ex-engine-contract>.

- Replacing the older, 1980s-era F-15Cs with F-15EXs could enable the Air Force to avoid some or all of the costs of F-15C upgrades. In addition to the eight F-15EXs, the FY2020 defense appropriation included \$899 million for upgrades to existing F-15s, with another \$851 million requested in FY2021.¹³ While costing more per aircraft than modernizing legacy F-15s, a new Eagle II is expected to have a longer service life.
- Buying F-15EXs, according to the Air Force, is an economical way of reaching the service's goals for fighter fleet size and average age.¹⁴
- Operating F-15EXs could cost less over time than operating fifth-generation fighters like the F-35 and F-22. While the per-hour cost of F-15s is fairly well established, there is less real-world experience with the F-35 fleet. This complicates a direct comparison; comparison with the F-22 may be more instructive, as it is also a twin-engine air-superiority fighter.

Then-Air Force Secretary Heather Wilson said publicly that the Air Force did not request F-15EXs in its initial FY2020 budget submission.¹⁵ This proposal appears to have been added by the Office of the Secretary of Defense during the budget build process, without a request for proposals or explanation.¹⁶

Industrial Base Concerns

Another argument proposed for the F-15EX, although not by the Air Force, concerns the U.S. fighter aircraft industrial base. The Boeing plant in St. Louis builds the F-15 and F/A-18 fighters, and it is expected to soon begin production of the T-7 trainer jet. The Navy has requested no F/A-18s in several recent budgets, and the end of that program would leave Lockheed Martin's F-35 as the only fighter in production. A DOD official stated that part of the F-15EX decision was to maintain competition, as it is "good to have multiple providers in the tactical aircraft portfolio."¹⁷ Other commentators note that Congress has continued to add F/A-18s to the budget, meaning that Boeing could continue as a viable fighter producer without F-15EX.¹⁸

¹³ Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Costs by Weapons System*, February 2020.

¹⁴ "USAF's Holmes on Roles for New F-15s, Surge Exercises and Improving Readiness," *Defense and Aerospace Report*, March 1, 2019, <https://www.youtube.com/watch?v=PtkfYv9W4h8>.

¹⁵ See, inter alia, John A. Tirpak, "F-15EX: Careful What You Don't Ask For," *Air Force Magazine*, March 22, 2019, <https://www.airforcemag.com/article/f-15ex-careful-what-you-dont-ask-for/>, and John A. Tirpak, "No Sign of 'The Air Force We Need' in USAF Budget; 80-Plus New-Old F-15s Coming," *Air Force Magazine*, March 22, 2019, <https://www.airforcemag.com/No-Sign-of-The-Air-Force-We-Need-in-USAf-Budget-80-Plus-New-Old-F-15s-Coming/>.

¹⁶ Valerie Insinna, "Industrial base considerations played role in F-15X decision," *Defense News*, March 22, 2019, <https://www.defensenews.com/air/2019/03/22/industrial-base-considerations-played-role-in-f-15x-decision/>.

¹⁷ Vivienne Machi, "DoD Official: F-15EX Buy About Capacity Building, Supporting Defense Industrial Base," *Defense Daily*, March 22, 2019, <https://www.defensedaily.com/dod-official-f-15ex-buy-capacity-building-supporting-defense-industrial-base/air-force/>.

¹⁸ See, inter alia, John Venable, *Nine Reasons Congress Should Nix the Air Force's F-15EX Purchase*, The Heritage Foundation, August 13, 2020, <https://www.heritage.org/defense/commentary/nine-reasons-congress-should-nix-the-air-forces-f-15ex-purchase>.

Does the F-15EX Replace the F-35?

The Air Force has emphasized that the F-35 and F-15EX are not rivals, but complementary. According to the Air Force, the F-35 brings superior stealth and sensor fusion; the F-15 can carry more payload. (Air Force officials describe this as the difference between “capability” and “capacity.”)¹⁹

The two systems are planned, at least at first, to have very different missions. Most of the F-15Cs the Eagle II will replace are in the Air National Guard, dedicated to the air sovereignty mission of defending U.S. airspace. The F-15EX will bring wider capabilities than the F-15Cs. Some observers wonder why they would not replace F-15E Strike Eagles that they more closely resemble and give the air sovereignty mission to aircraft whose characteristics more closely match that mission.²⁰

The planned different missions of the two aircraft may be seen in the emphasis on F-15EX as a successor to existing F-15s in their current roles. According to Air Combat Command commander General Mark Kelly, “I just don’t see us discussing an apples-versus-oranges in an F-35-versus-F-15EX scenario.”²¹

Given a fixed Air Force budget topline, however, increases in one program require cuts in others. Former Air Force Chief of Staff General David Goldfein said, “If we had the money, those would be 72 F-35s. But we’ve gotta look at this from a cost/business case.... If we’re refreshing the F-15C fleet, as we’re building up the F-35 fleet, this is not about any kind of a trade.”²²

Subsequently, the Air Force has started a review of its tactical aircraft portfolio to determine whether it should adopt a more heterogeneous fighter fleet (see “Appropriate Fighter Mix” below).²³

The Trump Administration’s FY2020 budget submission maintained the planned purchase of 48 F-35As in FY2020 and FY2021 and reduced outyear F-35As from the previous plan by 24 aircraft through FY2024. Congress subsequently added 14 F-35As to the 2020 request and another 12 in 2021. The reduction in planned purchases of F-35As at the same time as the onset of the F-15EX program has led some to see a tension between the two programs.²⁴

¹⁹ Valerie Insinna, “Lockheed CEO: Boeing’s F-15X won’t disrupt F-35 program,” *Defense News*, January 29, 2019, <https://www.defensenews.com/industry/2019/01/29/lockheed-ceo-boeings-f-15x-wont-disrupt-f-35-program/>.

²⁰ See, for example, Tyler Rogoway and Jamie Hunter, “Let’s Talk About The Air Force Potentially Replacing The F-15E With The F-15EX,” *The War Zone*, August 2, 2020, <https://www.thedrive.com/the-war-zone/35312/lets-talk-about-the-air-force-potentially-replacing-the-f-15e-with-the-f-15ex>, and counterarguments in Drew Brooks, “Not Your Father’s F-15,” *National Guard Magazine*, March 2021, <https://www.ngaus.org/magazine/not-your-fathers-f-15>. The F-15EX’s speed and maneuverability may not seem immediately relevant to air sovereignty, which involves intercepting bombers and cruise missiles traveling in comparatively straight paths.

²¹ Marcus Weisgerber, “Air Force General Defends Plans for Mixed F-35, F-15 Fleet,” *Defense One*, September 15, 2020, <https://www.defenseone.com/business/2020/09/air-force-general-defends-plans-mixed-f-35-f-15-fleet/168466/>.

²² Jeff Martin, “If the money is there, new and improved F-15s could be coming soon to the Air Force,” *Defense News*, January 26, 2019, <https://www.defensenews.com/newsletters/2019/01/26/if-the-money-is-there-new-and-improved-f-15s-could-be-coming-soon-to-the-air-force/>.

²³ Oriana Pawlyk, “The Air Force May Soon Be Shopping for a New Fighter Jet,” *Military.com*, February 24, 2021, <https://www.military.com/daily-news/2021/02/24/air-force-may-soon-be-shopping-new-fighter-jet.html>. Theresa Hitchens, “‘Clean Sheet’ F-16 Replacement In The Cards: CSAF Brown,” *Breaking Defense*, February 17, 2021, <https://breakingdefense.com/2021/02/clean-sheet-f-16-replacement-in-the-cards-csaf-brown/>.

²⁴ Marcus Weisgerber, “Lockheed Martin is Waging War on Boeing’s F-15EX,” *Defense One*, March 15, 2019, <https://www.defenseone.com/business/2019/03/lockheed-martin-waging-war-boeings-f-15ex/155598/>.

Appropriate Fighter Mix

The Air Force is in the process of reconsidering its future fighter mix. According to Air Force Chief of Staff General C.Q. Brown, “One of the areas we are pushing through is a [tactical air] study for the U.S. Air Force, to look at what is the right force mix. There is a high-end fight. There’s also a mixture for low-end fight.”²⁵

Previous plans had focused on the F-35 as the mainstay of the future fighter fleet, in keeping with an Air Force initiative to move to an all-fifth-generation-and-beyond force. The FY2020 request for F-15EXs changed that approach.

Subsequently, the Air Force justified the request on two grounds: that the operating costs of the F-35 were significantly higher than fourth-generation aircraft like the F-15EX, and that the service needed to acquire 72 new fighters per year to maintain the size of its fleets as older aircraft retire.²⁶

As mentioned above, the Air Force has maintained that F-35 and F-15EX do not compete directly for funding. Observers note that, regardless, the F-15EX proposal came at a time when the Air Force reduced its planned F-35 buy from 60 to 48 jets per year. Further, some argue that the additional capabilities inherent in the F-35 provide a better value at similar cost.²⁷ F-15 advocates note the age of current U.S. F-15s, and that new F-15EXs offer better value than extending the lives of existing ones.²⁸

In addition to addressing the role of the F-15EX in the context of the F-35, the use of unmanned aircraft systems may draw attention regarding the extent of the F-15EX need. The Air Force has been considering replacing some F-16s, which had been expected to be replaced by F-35s, with unmanned systems instead.

[Then-Air Combat Command commander General Mike] Holmes suggested that low-cost and attritable unmanned aircraft systems (UAS) might be considered ... as a replacement for F-16 Block 25/30 jets ... within 5-8 years. In congressional testimony on March 12, Holmes added that ACC’s goal is to achieve a fighter fleet ratio of 60% fifth-generation jets, such as F-35As and F-22s, to 40% fourth-generation aircraft, including F-15s, F-16s and A-10s.²⁹

²⁵ Garrett Reim, “USAF rethinks future fleet, ponders clean-sheet 4.5-generation fighter,” *FlightGlobal*, February 17, 2021, <https://www.flightglobal.com/fixed-wing/usaf-rethinks-future-fleet-ponders-clean-sheet-45-generation-fighter/142471.article>. Steve Trimble, “F-16, F-15EX Enjoy Unlikely Renaissance As Air Force Priorities Shift,” *Aviation Week*, February 4, 2021, <https://aviationweek.com/defense-space/budget-policy-operations/f-16-f-15ex-enjoy-unlikely-renaissance-air-force-priorities>.

²⁶ Valerie Insinna, “The US Air Force doesn’t want F-15X. But it needs more fighter jets,” *Defense News*, February 28, 2019, <https://www.defensenews.com/digital-show-dailies/air-warfare-symposium/2019/02/28/the-air-force-doesnt-want-f-15x-but-it-needs-more-fighter-jets/>. Oriana Pawlyk, “Air Force Wants Both F-35 and F-15EX. But if Forced to Choose, It’s No Contest: SecAF,” *Military.com*, May 20, 2019, <https://www.military.com/daily-news/2019/05/20/air-force-wants-both-f-35-and-f-15ex-if-forced-choose-its-no-contest-secaf.html>.

²⁷ See, for example, John Venable, *The F-35A Is the World’s Most Dominant, Cost-Effective Fighter: The Air Force Needs to Accelerate Its Acquisition Now*, The Heritage Foundation, Washington, DC, March 2, 2020, <https://www.heritage.org/defense/report/the-f-35a-the-worlds-most-dominant-cost-effective-fighter-the-air-force-needs-0>.

²⁸ Brian Everstine, “NORTHCOM Stresses Importance of F-15EX Buy for Homeland Defense,” *Air Force Magazine*, March 12, 2020, <https://www.airforcemag.com/northcom-stresses-importance-of-f-15ex-buy-for-homeland-defense/>.

²⁹ Steve Trimble, “As USAF Fleet Plans Evolve, Can the F-35A Program Survive Intact?,” *Aviation Week*, March 19, 2020, <https://aviationweek.com/defense-space/usaf-fleet-plans-evolve-can-f-35a-program-survive-intact>.

That ratio had previously been expressed as 50-50.³⁰

FY2021 Budget

Table 1 shows the FY2021 appropriations for research and development and procurement funding for the F-15EX program, along with FY2020 funding levels. **Table 2** shows the procurement request in greater detail.

Table 1. F-15EX Funding

Figures in millions of current dollars

	FY2020		FY2021	
	Funding	Quantity	Funding	Quantity
RDT&E	431.8	2	159.8	
Procurement	621.1	6	1,233.6	12
Advance Procurement			133.5	
Modifications	899.3		850.9	
TOTAL	1,952.2	8	2,377.8	12

Source: *Program Acquisition Costs by Weapons System*, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, February 2020, and explanatory statement accompanying Division C of H.R. 7617, the Defense, Commerce, Justice, Science, Energy and Water Development, Financial Services and General Government, Labor, Health and Human Services, Education, Transportation, Housing, and Urban Development Appropriations Act, 2021.

Table 2. FY2021 F-15EX Procurement

Figures in millions of current dollars

Procurement cost	1,269.8
Less previous advance procurement	0
Subtotal	1,269.8
Advance procurement for future aircraft	133.5
Spares	101.0
Total FY2021 request	1,504.3
Quantity of aircraft	12
Average procurement cost per aircraft	105.8

Source: Department of Defense, *Fiscal Year (FY) 2021 Budget Estimates: Aircraft Procurement, Air Force Vol-I*, February 2020, p. 17.

Possible Questions for Congress

As Congress evaluates the FY2022 and subsequent budget requests, it may consider the F-15EX program from a number of perspectives.

³⁰ Valerie Insinna, “The US Air Force doesn’t want F-15X. But it needs more fighter jets,” *Defense News*, February 28, 2019, <https://www.defensenews.com/digital-show-dailies/air-warfare-symposium/2019/02/28/the-air-force-doesnt-want-f-15x-but-it-needs-more-fighter-jets/>.

Procurement and Cost

Congress is faced with decisions regarding the extent to which the F-15EX program funding should be considered relative to other Air Force and DOD priorities. These decisions may be reflected in upcoming consideration of authorization and appropriations legislation. For example

- Should acquisition of new fighters be a competitive procurement?
- What are the relative costs of upgrading and modernizing existing F-15s as opposed to buying new ones? How many flight hours does the Air Force expect to get from the jets in each case?
- If new F-15EXs are purchased, would the Air Force retire older F-15s rather than upgrading them? How many and what value of upgrades would be forgone for each new F-15 purchased?

Strategy and Oversight

Congress may consider USAF decisions regarding the F-15EX program in the context of other USAF strategic decisions. These considerations may be raised in the context of authorization language and in oversight hearings. Such questions might include the following:

- What is DOD's commitment to completing the planned buy of F-35As?
- How does replacing F-15s fit with the Air Force's declared goal of growing to 386 squadrons?
- If stealthy aircraft are required in a given conflict only until air superiority is established, which allows older-technology aircraft to operate with impunity, does it make sense to size the buy of fifth-generation aircraft to requirements for the early phases of conflict?
- What is the national interest in maintaining more than one tactical aircraft manufacturer and, if advisable, how should that be done?
- How does the F-15EX fit with the current National Military Strategy emphasizing capability against sophisticated adversaries?
- Eagle IIs are slated to replace F-15C air superiority fighters, most of which are in the Air National Guard.
 - What are the Air Force's plans for fielding F-15EXs to the active Air Force? Do they get priority over reserve component units?
 - A main mission of the Air National Guard F-15s is continental air defense/air sovereignty. Do the Eagle II's new capabilities enhance accomplishing that mission? Might other aircraft be more efficient at those tasks?

Author Information

Jeremiah Gertler
Specialist in Military Aviation

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.