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Department of Defense Appropriations Act, 2023: Overview and Selected Issues

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The annual Department of Defense appropriations act provides discretionary funding for nearly all military-related activities of the Department of Defense (DOD) except the construction of facilities and the provision of family housing for authorized military personnel, which typically are funded in separate appropriations legislation. The Department of Defense Appropriations Act, 2023, enacted as Division C of the Consolidated Appropriations Act, 2023 (P.L. 117-328), provides \$788.5 billion in discretionary budget authority, which amounts to \$36.0 billion (4.8%) more than the Biden Administration’s \$752.4 billion request for programs covered by the act. Compared to the corresponding funding legislation for FY2022, the FY2023 bill provides an increase of \$68.9 billion (9.6%) for defense programs (see table below).

Neither the House nor the Senate passed a freestanding FY2023 defense appropriations bill. The House Appropriations Committee (HAC), after 18 Subcommittee on Defense hearings from March to May 2022, voted 32-26 on June 22, 2022, to introduce such a bill (H.R. 8236) with an accompanying report (H.Rept. 117-388) comparing committee funding decisions to DOD’s requested amounts. Upon introduction, the House took no further action on that bill. The Senate Appropriations Committee (SAC) held eight Subcommittee on Defense (SAC-D) hearing sessions from March to June 2022. Concurrent with publication of the SAC Chairman’s mark on the committee’s website, SAC-D Chairman Senator Jon Tester introduced an FY2023 defense appropriations bill (S. 4663) on July 28, 2022, on which neither the full Appropriations Committee nor the Senate took further action.

Bicameral, bipartisan negotiations produced a final version of the defense appropriations bill, which, along with the texts of 11 other appropriations bills, was substituted for the text of H.R. 2617 by process of amendment. The defense bill was designated as Division C of the resulting Consolidated Appropriations Act, 2023, which the Senate passed on December 22, 2022, by a vote of 68-29 (Record Vote Number: 421). The House passed the bill on December 23, 2022, by a vote of 225-201-1 (Roll no. 549). On December 29, 2022, the President signed H.R. 2617, which was enrolled as P.L. 117-328.

Department of Defense Appropriations Act, 2023

(discretionary budget authority in billions of current dollars)

Bill Title	FY2022 Enacted	House-Appropriations Committee Reported bill H.R. 8236		Senate Appropriations Defense Subcommittee Chair Introduced bill S. 4663		Division C of Consolidated Appropriations Act, 2023 H.R. 2617 (December 2022)
		FY2023 Request (March 2022)	H.R. 8236 (June 2022)	Amended FY2023 Request (June 2022)	Committee Chairman’s Mark (July 2022)	
Military Personnel	157.5	164.1	163.3	164.1	163.0	163.0
Operation and Maintenance	256.3	270.2	269.4	271.3	275.7	278.1
Procurement	144.9	144.9	143.9	145.0	156.7	162.2
Research & Development	119.2	130.1	131.7	129.9	134.6	139.8
Revolving and Management Funds	2.0	1.3	1.3	1.6	1.4	1.7
Defense Health Program and Other DOD Programs	39.8	39.3	40.5	39.3	40.2	41.8

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		FY2023 Request (March 2022)	H.R. 8236 (June 2022)	Amended FY2023 Request (June 2022)	Committee Chairman's Mark (July 2022)	
Related Agencies	1.1	1.1	1.1	1.1	1.1	1.1
General Provisions	-1.3	1.3	1.2	0.0	10.0	0.9
Total	719.6	752.4	752.4	752.4	782.8	788.5

Sources: U.S. Congress, *Department of Defense Appropriations Act, 2022*, report to accompany H.R. 2471, 117th Congress, 2nd sess., Joint Explanatory Statement – Division C, March 9, 2022; U.S. Congress, House Committee on Appropriations, *Department of Defense Appropriations Bill, 2023*, report to accompany H.R. 8236, 117th Cong., 2nd sess., H.Rept. 117-388, June 24, 2022; U.S. Congress, Senate Committee on Appropriations, *Explanatory Statement for the Department of Defense Appropriations Bill, 2023*, July 28, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285.

Notes: Totals may not sum due to rounding.

- a. To facilitate direct comparison of the FY2022 act with the FY2023 act, FY2022 data exclude supplemental appropriations and TRICARE for Life accrual payments, which the Congressional Budget Office (CBO) scores as discretionary spending but originate in statutes other than the annual appropriations act.
- b. Amounts designated “Related Agencies” go to the Central Intelligence Agency retirement and disability fund and to the Intelligence Community Management Account.
- c. Differences between “FY2023 Budget Request” columns in House and Senate documents reflect a revised budget request submitted by the Biden Administration on June 7, 2022 and inter-cameral differences over which Title of the bill should fund certain programs.

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Overview

The Department of Defense Appropriations Act, 2023, enacted as Division C of the Consolidated Appropriations Act, 2023 (P.L. 117-328), provides \$788.5 billion in discretionary budget authority, which amounts to \$36.0 billion (4.8%) more than the Biden Administration’s \$752.4 billion request for programs covered by the act. Compared to the corresponding funding legislation for FY2022, the FY2023 bill provides an increase of \$68.9 billion (9.6%) for defense programs (Table 1).¹

Table 1. Department of Defense Appropriations Act, 2023

(discretionary budget authority in billions of current dollars)

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Notes: Totals may not sum due to rounding.

¹ Discretionary spending derives its authority to expend funds from annual appropriation acts, while mandatory spending derives its authority to expend funds from laws other than annual appropriation acts. For an overview of mandatory spending trends, see CRS Report R44641, *Trends in Mandatory Spending*, by D. Andrew Austin.

- a. To facilitate direct comparison of the FY2022 act with the FY2023 act, FY2022 data excludes supplemental appropriations and TRICARE for Life accrual payments, which are scored by the Congressional Budget Office (CBO) as discretionary spending but originate in statutes other than the annual appropriations act.
- b. Amounts designated “Related Agencies” go to the Central Intelligence Agency retirement and disability fund and to the Intelligence Community Management Account.
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The annual Department of Defense appropriations act provides discretionary budget authority for nearly all military-related activities of the Department of Defense (DOD) except the construction of facilities and the provision of family housing for authorized military personnel, which typically are funded in separate appropriations legislation.²

Neither the House nor the Senate passed a freestanding FY2023 defense appropriations bill. The House Appropriations Committee, after 18 hearings by the Subcommittee on Defense during the period of March to May 2022, voted 32-26 on June 22, 2022, to introduce such a bill (H.R. 8236) with an accompanying report (H.Rept. 117-388). Upon introduction, the House took no further action on that bill. The Senate Appropriations Committee Subcommittee on Defense (SAC-D) held eight hearing sessions from March 29 to June 14, 2022. Concurrent with publication of the Chairman’s mark on the committee’s website, SAC-D Chairman Senator Jon Tester introduced an FY2023 defense appropriations bill (S. 4663) on July 28, 2022, on which neither the full Appropriations Committee nor the Senate took further action.

Bicameral, bipartisan negotiations produced a final version of the defense appropriations bill, which, along with the texts of 11 other appropriations bills, was substituted for the text of H.R. 2617 by process of amendment. The defense bill was designated as Division C of the resulting Consolidated Appropriations Act, 2023, which the Senate passed on December 22, 2022, by a vote of 68-29 (Record Vote Number: 421). The House passed the bill on December 23, 2022, by a vote of 225-201-1 (Roll no. 549). On December 29, 2022, the President signed H.R. 2617, enrolled as P.L. 117-328 (See **Table 2**).

Table 2. Legislative History of Department of Defense Appropriations Bill, 2023

Appropriations Defense Subcommittee Markup		House Appropriations Committee Report	Senate Appropriations Committee Explanatory Statement	Explanatory Statement ^a	Consolidated Appropriations Act, 2023 Approval		Public Law
House	Sen.				House	Senate	
H.R. 8236		32-26	S. 4663	H.R. 2617	225-201-	68-29	P.L. 117-
voice vote		6/22/22	introduced 7/28/22	Cong. Rec.	1	12/22/22	328
6/15/22		H.Rept. 117-388	Sen. Approps. Committee press release, 7/28/22	12/20/22, pp. S 8029-S 8285	12/23/22		12/29/22

Source: U.S. Congress, House Committee on Appropriations, *Department of Defense Appropriations Bill, 2023*, report to accompany H.R. 8236, 117th Cong., 2nd sess., H.Rept. 117-388, June 24, 2022; U.S. Congress, Senate Committee on Appropriations, *Explanatory Statement for the Department of Defense Appropriations Bill, 2023*, July 28, 2022; and Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; House of Representatives Roll Call vote number 549, Bill Number: H.R. 2617, 117th Cong., 2nd sess., December 23, 2022 at <https://clerk.house.gov/Votes/2022549>; Senate Roll Call vote number 421, Measure Number: H.R.

² The FY2023 appropriations bill covering military construction and family housing as well as the Department of Veterans Affairs was enacted as Division J of the Consolidated Appropriations Act, 2023 (H.R. 2617).

2617, 117th Cong., 2nd sess., December 22, 2022 at

https://www.senate.gov/legislative/LIS/roll_call_votes/vote1172/vote_117_2_00421.htm; P.L. 117-328.

- a. The Consolidated Appropriations Act, 2023 (P.L. 117-73) utilized an “amendments-between-the-Houses” process rather than a conference committee to resolve differences between bill versions. Therefore, the “explanatory statement” referred to throughout this report is not a typical joint explanatory statement generated by a conference committee. Rather, it refers to the explanatory statement accompanying the enacted bill in the Congressional Record, which states that it “shall have the same effect with respect to the allocation of funds...as if it were a joint explanatory statement of a committee of conference.” See Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), p. S7820.

There are hundreds of differences between the Biden Administration’s budget request and the enacted bill over funding for particular DOD programs and activities. However, a relative handful of broad issues account for much of the difference between the FY2023 budget request and the budget authority appropriated in the enacted bill. These differences can be analyzed in terms of upward or downward adjustments to the Administration’s base budget request.³

Selected Upward Adjustments

Inflation Adjustments

Because DOD develops each year’s budget request over a two-year year cycle within the Planning, Programming, Budgeting, and Execution (PPBE) process, economic assumptions driving DOD’s budget request just prior to budget submission (e.g., in late 2021 or early 2022) may not match congressional expectations for future price inflation during legislative hearings, floor consideration, or bicameral negotiations (e.g., from early 2022 through bill passage).⁴ The enacted bill includes a total of \$8.0 billion in new budget authority intended to cover projected cost increases attributed to higher-than-anticipated inflation. These adjustments include personnel (\$1.8 billion) and non-personnel (\$6.2 billion) cost inflation (see **Table 3**).

Personnel-related inflation adjustments address cost growth affecting military personnel allowances for subsistence, housing, dislocation, basic needs, and temporary lodging expenses.⁵ Inflation adjustments outside Military Personnel appropriations address cost growth for utilities and daycare, military grocery stores (i.e., commissaries), military health care, fuel, and cost growth common to acquisition programs.⁶

³ DOD’s *Financial Management Regulation* (FMR) refers to upward adjustments to individual programs as “Congressional Adds.” See DOD, *Financial Management Regulation*, DOD 7000.14-R, Volume 2B Chapter 5, p. 5-16 at <https://comptroller.defense.gov/fmr/>. In practice, Congress may utilize dozens of unique phrases to designate upward and downward adjustments to the presidential administration’s requests in funding tables accompanying an enacted appropriations bill, such as “program increase.” Other terms have precise technical definitions, such as “Rescissions,” whereby Congress takes away remaining obligation authority from prior year appropriations accounts that are both unexpired and contain unobligated balances. The DOD FMR accounts for the totality of upward and downward adjustments at the line-item level in the following categories: Congressional General Reductions; Congressional Directed Reductions; Congressional Rescissions; Congressional Adds; Congressional Directed Transfers [between appropriations accounts]; and Other Adjustments. See *Ibid.*, p. 5-17.

⁴ For more information on PPBE, see CRS Report R47178, *DOD Planning, Programming, Budgeting, and Execution (PPBE): Overview and Selected Issues for Congress*, by Brendan W. McGarry.

⁵ For more information on military allowances, see CRS In Focus IF10532, *Defense Primer: Regular Military Compensation*, by Lawrence Kapp and CRS Report R47728, *Military Housing*, by Andrew Tilghman.

⁶ For more information on these programs, see CRS In Focus IF11089, *Defense Primer: Military Commissaries and Exchanges*, by Barbara Salazar Torreon and Kristy N. Kamarck and CRS In Focus IF10530, *Defense Primer: Military Health System*, by Bryce H. P. Mendez.

Table 3. Inflation Adjustments, Department of Defense Appropriations Act, 2023

In thousands of current dollars (\$K)

Military Personnel Inflation Adjustments	Subsistence Allowance	Housing Allowance	Dislocation Allowance	Basic Needs Allowance	Temporary Lodging Expense Coverage
Army	\$101,900	\$307,000	\$8,000	\$5,450	\$76,700
Army Reserve	\$7,900	\$26,800	\$800	\$170	\$3,600
Army National Guard	\$15,700	\$48,600	\$1,500	\$340	\$5,300
Navy	\$68,200	\$404,000	\$4,300	\$2,220	\$19,800
Navy Reserve	\$4,600	\$15,500	\$300	\$170	\$5,400
Marine Corps	\$30,900	\$115,600	\$2,200	\$1,020	\$5,900
Marine Corps Reserve	\$2,700	\$5,100	\$100	\$170	\$1,400
Air Force	\$76,700	\$227,500	\$5,000	\$2,050	\$38,400
Air Force Reserve	\$4,000	\$14,800	\$400	\$170	\$4,800
Air National Guard	\$7,700	\$35,100	\$700	\$170	\$2,100
Space Force	\$7,500	\$24,900	\$200	\$170	\$675
<i>Total, Military Personnel</i>	<i>\$327,800</i>	<i>\$1,224,900</i>	<i>\$23,500</i>	<i>\$12,100</i>	<i>\$164,075</i>
Non-Personnel Inflation Adjustments	Utilities and Daycare	Commissaries	Defense Health Program	Fuel Costs	Revised Acquisition Costs
<i>Total, Non-Personnel</i>	<i>\$841,892</i>	<i>\$209,615</i>	<i>\$400,000</i>	<i>\$3,734,000</i>	<i>\$1,052,501</i>
Grand Total, Inflation Adjustments					\$7,990,383

Source: CRS analysis of U.S. Congress, House Committee on Appropriations, *Consolidated Appropriations Act, 2023*, committee print, 117th Cong., 2nd sess., H.Prt 50-347, Book I; and Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285.

Reserve and National Guard Equipment

To accelerate modernization of reserve and National Guard equipment, the enacted bill provides a total of \$3.5 billion above the Administration's request. Nearly half that amount (\$1.7 billion) is to procure 16 C-130J cargo planes for the Air National Guard.⁷

Also specified within the total is \$350.0 million for 12 MQ-1C Gray Eagle Extended Range Unmanned Aerial Vehicles (UAVs), \$273.0 million for 10 Blackhawk helicopters, \$120.0 million

⁷ Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), p. S8150.

for Jeep-like HMMWVs (“Hum-vees”) for the Army National Guard, and \$53 million for new radars for Air National Guard F-16 fighter aircraft.⁸

Research and Development

The enacted defense appropriations bill provides hundreds of program increases for DOD-funded science and technology (S&T) research projects. S&T research, much of it performed by universities, focuses on basic research, applied research, and advanced technology development that could be incorporated into the design of future military hardware, as opposed to research associated with specific prototypes undergoing test and evaluation or equipment already in the field or slated for procurement.⁹

The enacted bill provides a net total of \$9.9 billion above the amount requested across the research, development, test, and evaluation (RDT&E) portfolio.¹⁰ Selected upward adjustments include nearly 600 line-item program increases totaling \$6.6 billion in DOD’s main RDT&E accounts and 56 adds totaling \$2.0 billion in the RDT&E portion of the Defense Health Program.¹¹

In order for DOD to meet congressional intent in spending these funds, the enacted bill states that “funding increases shall be competitively awarded, or provided to programs that have received competitive awards in the past.”¹² The exception to this rule is Community Project Funding, which Congress “earmarks” for non-competitive award to particular universities. The enacted bill includes \$54.2 million in DOD RDT&E Community Project Funding.¹³

Selected Downward Adjustments

The enacted bill partly offsets the net effect of these and other upward adjustments on total discretionary defense budget authority with \$12.8 billion worth of downward adjustments relative to the Administration’s request. The explanatory statement accompanying the enacted bill explains legislators’ decisions about hundreds of these adjustments in terms of specific reservations about particular programs.¹⁴

Military Personnel

⁸ Ibid. pp. S8104, S8116, S8151.

⁹ For additional background, see CRS In Focus IF10553, *Defense Primer: RDT&E*, by John F. Sargent Jr.

¹⁰ Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), p. 8173.

¹¹ CRS analysis of Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S8173-S8257. Section 8144 of the enacted bill also requires the Secretary of Defense to allocate \$400.0 million from the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Defense Fund into defense-wide RDT&E accounts for a Microelectronics Commons. See Ibid., p. S8263. See also, Congress.gov. "H.R.4346 - 117th Congress (2021-2022): Chips and Science Act." August 9, 2022, Section 102(b) at <https://www.congress.gov/bill/117th-congress/house-bill/4346>.

¹² Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), p. S8029.

¹³ Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S8264-S8265.

¹⁴ For more on joint explanatory statements, see CRS Report 98-382, *Conference Reports and Joint Explanatory Statements*, by Christopher M. Davis. As noted above, the Consolidated Appropriations Act, 2023 (P.L. 117-73) utilized an “amendments-between-the-Houses” processes rather than a conference committee to resolve differences between bill versions. See Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), p. S7820.

The enacted bill cuts a total of \$2.9 billion relative to the budget request for military personnel on grounds that the armed forces would have fewer members in FY2023 than the request assumed.¹⁵ The explanatory statement ascribes these figures to “underexecution of strength.” While the statement provides no further explanation, it has been widely reported that the Armed Forces – particularly the Army – have been falling short of recruiting goals.¹⁶

Non-programmatic Line-Item Reductions

The enacted bill makes over 650 relatively small reductions to requested amounts in other appropriations that add up to \$9.9 billion.¹⁷ The explanatory statement accompanying the final bill justifies each downward adjustment individually, often citing “unjustified growth” in the Administration’s request for a given line item.¹⁸ Some of these “non-programmatic” reductions are explained with reference to changes in a particular program’s anticipated performance schedule.¹⁹ The enacted bill makes 44 reductions across 13 appropriation accounts on schedule grounds (e.g., workload delays labeled “prior year carryover”) for a total of \$857.6 million.²⁰ Other enacted reductions are explained with brief labels such as “excess to need” or “historic unobligated balances,” the latter phrase indicating that a particular program has exhibited a consistent pattern over several years of reaching the end of its obligation authority with significant unobligated balances.²¹

Rescissions and General Reductions

Apart from the downward adjustments already mentioned, the enacted bill also incorporates two general reductions to budget authority in the overall appropriation:

- Section 8047 *rescinds* \$1.1 billion in unspent funds appropriated by Congress in prior fiscal years but not yet expired, returning those fund balances to the Treasury and thereby offsetting some of the upward adjustments in the act from

¹⁵ CRS analysis of Military Personnel accounts in Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S8031-S8058. These budget cuts, allocated to the personnel budget account of each service component (active and reserve), reflect an assumed total FY2023 end-strength of 2,087,344 which is 1.7% lower than the end-strength assumed in the budget request. See **Table 4** below.

¹⁶ John M. Donnelly, “The Army tells House panel of enormous personnel shortfalls,” *Roll Call*, July 22, 2022 at <https://rollcall.com/2022/07/19/army-tells-house-panel-of-enormous-personnel-shortfalls/>.

¹⁷ CRS analysis of U.S. Congress, House Committee on Appropriations, *Consolidated Appropriations Act, 2023*, committee print, 117th Cong., 2nd sess., Book 1; and Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285.

¹⁸ In general, “unjustified growth” indicates the appropriators’ judgment that a requested funding increase in the budget year was not sufficiently justified in the Administration’s budget justification exhibits. Based on CRS analysis, over 200 downward adjustments totaling \$3.9 billion cite “unjustified growth” or “excess growth” in the enacted bill.

¹⁹ Non-programmatic adjustments are distinguished from programmatic adjustments that are applied formulaically across appropriations, such as those reflecting pay raises, revised economic assumptions, and inflation adjustments.

²⁰ CRS analysis of Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285.

²¹ The DOD FMR defines unobligated balances as “the cumulative amount of budget authority in an unexpired account that is not obligated and that remains available for obligation under law.” DOD, *Financial Management Regulation*, DOD 7000.14-R, Glossary, p. G-36. Unobligated balances in *expired* accounts generally cannot be placed on new contracts, representing a failure to expend taxpayer dollars for congressionally mandated purposes during a specified period of availability. Congress may therefore use “historic unobligated balances” to refer to programs that consistently do not meet targeted spending rates established by DOD policy, increasing the risk of unobligated balances in expired and cancelled accounts. See Defense Acquisition University, “OUSDC Rule-of-Thumb Acquisition Obligation and Expenditure Rates,” at [https://www.dau.edu/tools/Lists/DAUTools/Attachments/292/OSD%20\(C\)%20Color%20Rule-of-Thumb%20Acq%20Obligation%20and%20Expenditure%20Rates.pdf](https://www.dau.edu/tools/Lists/DAUTools/Attachments/292/OSD%20(C)%20Color%20Rule-of-Thumb%20Acq%20Obligation%20and%20Expenditure%20Rates.pdf). For more information on expired appropriations, see CRS In Focus IF12329, *Expiration and Cancellation of Unobligated Funds*, by Taylor N. Riccard.

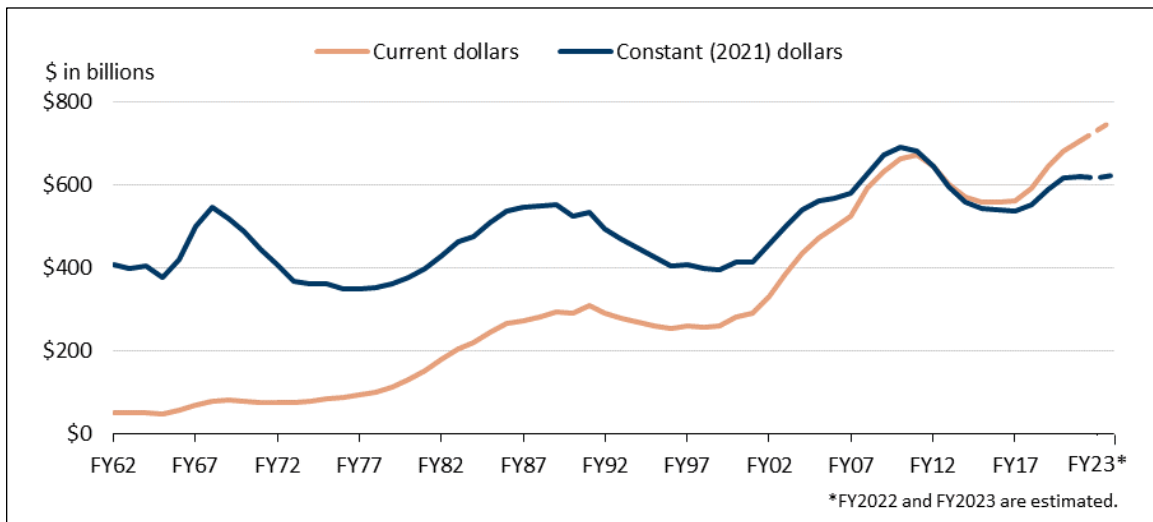
the perspective of total budget authority in the national defense budget function for FY2023.²²

- Section 8122 reduces the total appropriation by \$956.4 million to account for favorable exchange rates for U.S. dollars relative to foreign currencies.²³

Budgetary Context

Based on the Administration’s FY2023 DOD budget request, defense outlays in FY2023 when adjusted for inflation would exceed the department’s annual purchasing power during the Cold War-era military buildup of the mid-1980s. However, the outlays would be lower than during the peak years of post-9/11 military operations in Afghanistan and Iraq (see **Figure 1**).

Figure 1. DOD Outlays in Current and Constant Dollars: 1962-2023 (estimated)



Source: CRS analysis of Office of Management and Budget, *President’s Budget for FY2023: Historical Tables*, Table 8.7 “Outlays for Discretionary Programs: 1962-2027” and Table 8.8 “Outlays for Discretionary Programs in Constant (FY2012) Dollars: 1962-2027.”

Notes: Total DOD outlays include the relatively small proportion for military construction, which is funded in a separate appropriations bill.

In general, the levels of discretionary outlays for defense and nondefense federal programs have not been far apart since the aftermath of the 1991 war with Iraq. Defense spending ran slightly

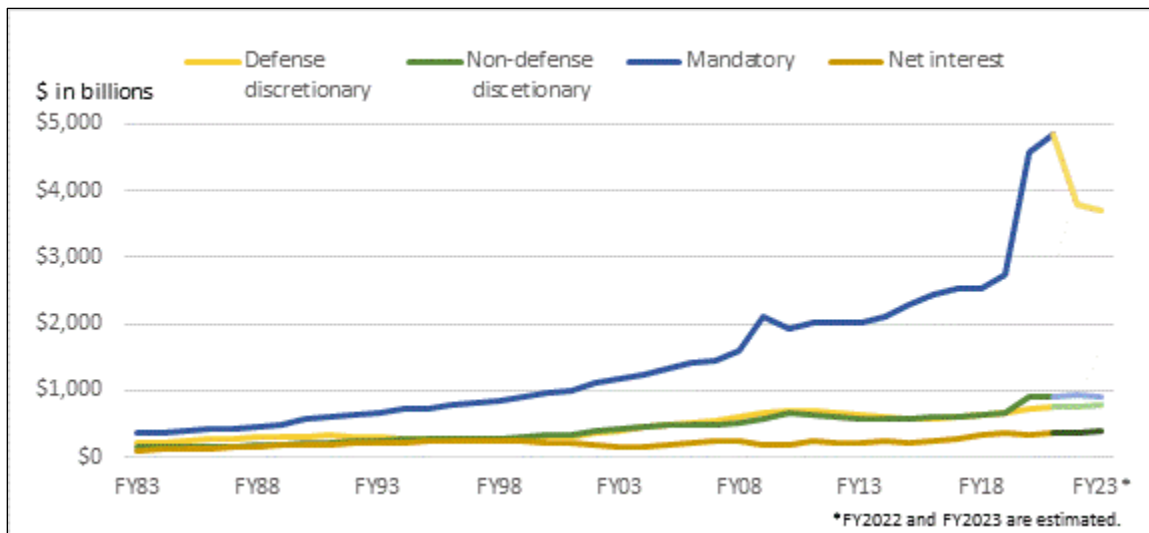
²² Office of Management and Budget, *OMB Circular No. A-11*, 2023, Appendix A, p. 2 at <https://www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf#page=824>: “Rescissions of unobligated balances will be scored as reductions in current budget authority and outlays in the year the money is rescinded.” For more information on how rescissions work, see Congressional Budget Office, “CBO explains how it estimates savings from rescissions,” May 2023 at <https://www.cbo.gov/publication/59209>.

²³ Congress authorizes DOD to maintain “foreign currency fluctuation” accounts to handle the effects of discrepancies between expected costs and actual costs for transactions involving foreign currencies. These accounts accumulate account balances (or “realized variance”) when exchange rates at the time of disbursement are more favorable to the U.S. dollar than expected. See 10 U.S.C. §2779 and DOD, *Financial Management Regulation*, DOD 7000.14-R, Glossary, pp. G-20, G-29. DOD submits to Congress a budget exhibit each year (Exhibit PB-18, “Foreign Currency Exchange Data”) containing expectations for foreign currency exchange rates affecting certain budgeted line items. See DOD, *Financial Management Regulation*, DOD 7000.14-R. Volume 2B, Ch. 19, p. 19-72.

higher during the peak of the Persian Gulf War while nondefense spending surged after 2019 in response to the COVID-19 pandemic.

Combined discretionary defense and nondefense spending has been outstripped by mandatory spending since the early 1990s. For FY2023, Office of Management and Budget (OMB) projected mandatory outlays will total \$3.7 trillion (of which Social Security, Medicare, and Medicaid payments account for 75%), which would be more than double the discretionary outlays total and nearly 4.7 times the discretionary defense amount (see **Figure 2**).

Figure 2. Major Categories of Federal Outlays: 1983-2023



Source: Office of Management and Budget, *President’s Budget for FY2023: Historical Tables*, Table 8.1 “Outlays by Budget Enforcement Act Category: 1962-2023”. Chart created by CRS.

Notes: Data for “National Defense” is for Budget Function 050, which includes a relatively small percentage of spending that falls outside the scope of the annual defense appropriations bill, including funding for DOD military construction and for defense-related spending by the Department of Energy and other agencies.

Selected Military Personnel Issues

The enacted bill provides \$163.0 billion for Military Personnel (MILPERS) appropriations, which is \$1.2 billion (0.7%) less than the budget request. The enacted bill funds a total force, active and reserve, numbering 2,087,344 uniformed personnel, which is 35,556 (1.7%) lower than the FY2023 military end-strength in the budget request and 60,196 (2.8%) lower than the actual FY2022 end-strength (see **Table 4**).

Unlike the end-strength totals in the enacted bill, neither H.R. 8236 nor S. 4663 assumed any reduction in end-strength below the level assumed in the FY2023 budget request.²⁴

²⁴ Failure to meet end-strength goals during the fiscal year typically entails maintaining unobligated balances in one or more MILPERS appropriations accounts. Since MILPERS funds have a one-year period of availability, these unobligated balances tend to become candidates for transfer to other appropriations accounts through mid-year reprogramming requests. These reprogramming requests require congressional notification and in practice can take months to complete, increasing the risk that unused MILPERS funds may expire without being obligated. For more information on transfer authority and reprogramming authority, see CRS In Focus IF11243, *Defense Primer: DOD Transfer and Reprogramming Authorities*, by Brendan W. McGarry and CRS Report R46421, *DOD Transfer and Reprogramming Authorities: Background, Status, and Issues for Congress*, by Brendan W. McGarry.

Table 4. FY2022-23 Military Personnel End-strength

	FY2022 actual	FY2023 budget request	House Committee -reported H.R. 8236	Senate Committee- Explanatory Statement	Enacted Bill Division C
Active-Duty Forces					
Army	485,000	473,000	473,000	473,000	452,000
Navy	346,920	346,300	346,300	346,300	354,000
Marine Corps	178,500	177,000	177,000	177,000	177,000
Air Force	329,220	323,400	323,400	323,400	325,344
Space Force	8,400	8,600	8,600	8,600	8,600
Total, Active-Duty Forces	1,348,040	1,328,300	1,328,300	1,328,300	1,316,944
National Guard and Reserve Forces (Selected Reserve)					
Army Reserve	189,500	189,500	189,500	189,500	177,000
Navy Reserve	58,600	57,700	57,700	57,700	57,700
Marine Corps Reserve	36,800	33,000	33,000	33,000	33,000
Air Force Reserve	70,300	70,000	70,000	70,000	70,000
Army National Guard	336,000	336,000	336,000	336,000	325,344
Air National Guard	108,300	108,400	108,400	108,400	108,400
Total, Selected Reserve	799,500	794,600	794,600	794,600	770,400
Grand Total, Military Personnel	2,147,540	2,122,900	2,122,900	2,122,900	2,087,344

Source: U.S. Congress, *Department of Defense Appropriations Act, 2022*, report to accompany H.R. 2471, 117th Congress, 2nd sess., Joint Explanatory Statement – Division C, March 9, 2022, p. 22; DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Defense Budget Overview: United States Department of Defense: Fiscal Year 2023 Budget Request*, April 2022, pp. A-4, A-5; H.Rept. 117-388, House Appropriations Committee, *Report of the Committee on Appropriations together with Minority Views [to accompany H.R. 8236]*, June 24, 2022, pp. 13-14; U.S. Congress, Senate Committee on Appropriations, *Explanatory Statement for the Department of Defense Appropriations Bill, 2023*, July 28, 2022, p. 19; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), p. S8032.

Note: The Selected Reserve are, in general, those units and individuals who train for at least one weekend per month in addition to on two-week period per year. See CRS In Focus IF10540, *Defense Primer: Reserve Forces*, by Lawrence Kapp.

Military Pay Raise

As requested, the enacted bill includes upwards of \$3.0 billion to cover the cost of a 4.6% increase in military basic pay which the Administration proposed to take effect on January 1,

2023.²⁵ This adjustment matches the annual increase in the Employment Cost Index (ECI), a Labor Department survey of wages and salaries in private industry.²⁶

As noted above, in addition to the basic pay raise the enacted bill includes a total of \$1.8 billion for various allowances (food, housing, certain moving expenses, and basic needs of servicemembers living below certain gross household income thresholds) to offset rising costs due to inflation.

Extremist Ideologies

The explanatory statement associated with the enacted bill directs senior DOD officials to update an earlier report to Congress on policies and actions taken to address the involvement of military personnel with extremist or criminal groups.²⁷

This language was adopted in lieu of language in the House committee report that would have required DOD specifically to report on changes in security clearance policies, associated procedures, and training to ensure that individuals who adhere to extremist ideologies are not granted security clearances.²⁸

Abortion Access

The enacted bill does not include a provision contained in the House-introduced bill (Section 8145) that would prohibit the denial of a request by any member of the armed forces or any DOD civilian employee for leave for the purpose of obtaining an abortion or assisting a spouse, partner, or significant other in obtaining an abortion.²⁹

Sexual Assault, Prevention, and Response

The enacted bill fully funds DOD's request for \$479.0 million to implement the recommendations of an Independent Review Commission (IRC) created in 2021 to provide an assessment of sexual assault in the armed forces.³⁰ These recommendations include creating a full-time sexual assault prevention workforce, giving responders expanded support for dealing with caseloads, and creating a dedicated research center.³¹

In addition, Section 8044 of the bill adds to the budget \$47.0 million for the Sexual Assault Special Victims' Counsel Program.³²

²⁵ The direct cost of the proposed 4.6% increase in basic pay is \$2.88 billion. It may generate additional increases totaling several hundred million dollars in various fringe benefits that are linked by law to the basic pay rate.

²⁶ For background, see CRS In Focus IF10260, *Defense Primer: Military Pay Raise*, by Lawrence Kapp.

²⁷ For background, see CRS Insight IN11779, *FY2022 NDAA: Extremism in the Military*, by Kristy N. Kamarck.

²⁸ For the House report language, see H.Rept. 117-388, pp. 15-16.

²⁹ For background and additional information, see CRS Insight IN11960, *FY2023 NDAA: Military Abortion Policies*, by Kristy N. Kamarck and Bryce H. P. Mendez.

³⁰ See DOD, "The Department of Defense releases the President's fiscal year 2023 defense budget," press release, March 28, 2022.

³¹ Independent Review Commission on Sexual Assault in the Military, *Hard Truths and the Duty to Change: Recommendations from the Independent Review Commission on Sexual Assault in the Military*, July 2, 2021, at <https://www.defense.gov/Newsroom/Releases/Release/Article/2681145/independent-review-commission-recommendations-on-counteracting-sexual-assault-in-t/>.

³² For additional background, see CRS Report R44944, *Military Sexual Assault: A Framework for Congressional Oversight*, by Kristy N. Kamarck and Barbara Salazar Torreon.

Defense Medical Facilities Reorganization

The enacted bill's explanatory statement directs the Government Accountability Office (GAO) to report on the status of the reorganization of DOD health care initiated by the FY2017 National Defense Authorization Act (P.L. 114-328) and codified in Title 10, *U.S. Code* Sections 1073c and 1073d.³³ DOD proposes to shift uniformed military medical personnel from certain medical clinics and hospitals to major medical centers and combat-support units. Civilian medical personnel are to fill some of the resulting vacancies while others go unfilled. Some military dependents and retirees would be required to seek medical care from non-DOD facilities with costs covered by DOD's TRICARE program.

Selected Operation and Maintenance Issues

The enacted bill provides \$278.1 billion in discretionary budget authority to Operation and Maintenance appropriations, which is \$6.8 billion (2.5%) more than the requested amount and \$21.8 billion (8.5%) more than the FY2022 enacted amount (in current dollars). The enacted bill upwardly adjusts DOD's FY2023 O&M budget request by billions of dollars in an effort to improve the combat readiness of U.S. forces. These adjustments include:

- \$1.5 billion for maintenance and repair of facilities;
- \$485.0 million for equipment overhauls at specialized maintenance depots; and
- \$427.0 million for recruiting and advertising costs.

The enacted bill also adds to the Navy's budget request \$322.0 million to pay for the continued operation of several ships the Navy had planned to decommission. Section 8079 of the act prohibits the Navy from decommissioning five Littoral Combat Ships included in this group.

Minimum Wage for Contractor Employees

The enacted bill does not include a provision from the House-introduced bill (Section 8024) that would have required any for-profit contractor receiving funds appropriated by the act to pay any employee at the rate of at least \$15 per hour.

Removal of Confederate Names

The enacted bill adds to the request \$1.0 million to continue the process of renaming DOD installations and facilities currently named to commemorate the Confederate States of America or any of its officials. A commission created to plan the renaming, mandated by Section 370 of the William M. (Mac) Thornberry National Defense Authorization Act for FY 2021 (P.L. 116-283), completed its mission in October 2022 with DOD implementation to follow not later than January 1, 2024.³⁴

³³ For additional background, see CRS In Focus IF11273, *Military Health System Reform*, by Bryce H. P. Mendez; CRS In Focus IF11458, *Military Health System Reform: Military Treatment Facilities*, by Bryce H. P. Mendez; CRS Insight IN11115, *DOD's Proposal to Reduce Military Medical End Strength*, by Bryce H. P. Mendez; and pp. 41-45 of CRS Report R46810, *FY2021 National Defense Authorization Act: Selected Personnel and Health Care Issues*, by Kristy Kamarck, et. al.

³⁴ For more on the commission, see CRS Insight IN10756, *Confederate Names and Military Installations*, by Barbara Salazar Torreon. See also Alex Horton, "Panel: Erasing Confederate symbols from U.S. military to cost \$62 million," *Washington Post*, September 13, 2022, p. A5.

Selected Environmental Issues

The enacted bill adds \$520.7 million to the \$1.1 billion requested for DOD's Environmental Restoration accounts, which fund the cleanup of hazardous waste and pollutants at military installations and formerly used defense sites.

PFAS/PFOA Remediation

More than one-third of the added environmental restoration funds (\$224.9 million) will expedite cleanup efforts aimed at groundwater contamination by certain highly toxic chemicals that were widely used as fire-fighting agents, particularly at aviation facilities.³⁵ These chemicals, used in products such as “aqueous film-forming foam,” are referred to as PFAS/PFOA. As of September 2022, DOD has identified 700 locations where it “is conducting or has completed an assessment of PFAS use or potential release.”³⁶

The House Appropriations Committee, in its report on H.R. 8236, acknowledges that no commercially available PFAS replacement meets DOD safety standards.³⁷ However, citing “significant and salient public health risks” associated with PFAS/PFOA, the committee directs DOD to comply with a provision of the FY2020 NDAA requiring that their use be phased out by the start of FY2025 (P.L. 116-92, Section 322).³⁸

Red Hill (Hawaii) Fuel Depot Cleanup

Section 8119 of the enacted bill provides \$1.0 billion, as requested, to deal with the contamination of a portion of Honolulu's water supply by a fuel leak from the Navy's Red Hill bulk fuel depot by removing all fuel from the facility and closing it.³⁹ The facility, opened in 1943, includes 20 large tanks – with a total capacity of 250 million gallons of ship and aircraft fuel – buried in a hillside overlooking Pearl Harbor and above a major aquifer.⁴⁰

In 2014, a leak of 27,000 gallons of jet fuel highlighted the risk of water contamination from the facility. Subsequent inadvertent fuel release and ensuing legal efforts culminated in DOD's decision early in 2022 to close the facility and move elsewhere the fuel it still contained.⁴¹

³⁵ House Committee on Appropriations, *Consolidated Appropriations Act, 2023*, committee print, 117th Cong., 2nd sess., H.Prt 50-347, Book 1, p. 533.

³⁶ Department of Defense, *Report on Department of Defense's Per- and Polyfluoroalkyl Substances Task Force Activities*, September 2022, p. A-1, A-2.

³⁷ H.Rept. 117-388, p. 56.

³⁸ In January 2023, DOD published revised standards for fire-fighting foam to facilitate the development, testing, and procurement of commercial PFAS replacements. For additional background, see CRS Report R45986, *Federal Role in Responding to Potential Risks of Per- and Polyfluoroalkyl Substances (PFAS)*, coordinated by David M. Bearden.

³⁹ Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Defense Operation & Maintenance Overview Book, Fiscal Year 2023 Budget Request*, May 2022, p. 272; DOD, “Statement by Secretary of Defense Lloyd J. Austin III on the closure of the Red Hill bulk fuel storage facility,” press release, March 7, 2022 at <https://www.defense.gov/News/Releases/Release/Article/2957825/statement-by-secretary-of-defense-lloyd-j-austin-on-the-closure-of-the-red/>; DOD, “About Red Hill,” web resource at <https://cnrh.cnrc.navy.mil/Operations-and-Management/Red-Hill/About-Red-Hill/>.

⁴⁰ U.S. Environmental Protection Agency, “What is the Red Hill bulk fuel storage facility?,” web resource at <https://www.epa.gov/red-hill/what-red-hill-bulk-fuel-storage-facility>; DOD, “About Red Hill,” web resource at <https://cnrh.cnrc.navy.mil/Operations-and-Management/Red-Hill/About-Red-Hill/>.

⁴¹ DOD, “Statement by Secretary of Defense Lloyd J. Austin III on the closure of the Red Hill Bulk Fuel Storage (continued...)”

Selected War on Terror Issues

Section 8142 of the enacted bill prohibits the use of appropriated funds to close the detention facility at Guantanamo Bay, Cuba. Section 8139 of H.R. 8236 included a provision that would have mandated closure of the facility.

The enacted bill also includes provisions barring the use of funds to transfer certain detainees from Guantanamo Bay to U.S. territory (Section 8139); to transfer any Guantanamo Bay detainee to any foreign country (Section 8140); or to construct any facilities in the United States to house any Guantanamo Bay detainees (Section 8141).

Use of Force Authorizations

The enacted bill does not include any provision affecting legislation adopted in 2001 and 2002 authorizing U.S. military operations in the wake of the September 11, 2001 terrorist attacks on the United States. H.R. 8236 would have repealed both of those measures:

- Section 8148 would have repealed P.L. 107-40, the joint resolution adopted in 2001 to authorize the use of military force against perpetrators of the September 11, 2001 attacks; and
- Section 8149 would have repealed P.L. 107-243, the joint resolution adopted in 2002 to authorize the use of military force against Iraq

Selected Acquisition Issues

The enacted bill provides \$162.2 billion in new discretionary budget authority for DOD Procurement programs, \$17.2 billion (11.9%) above the requested level and \$17.3 billion (11.9%) above the FY2022 enacted level (in current dollars).

For DOD Research, Development, Test, and Evaluation (RDT&E) programs, the enacted bill provides \$139.8 billion in new discretionary budget authority, \$9.9 billion (7.6%) above the requested level and \$20.5 billion (17.2%) above the FY2022 enacted level (in current dollars).

Expedited Acquisition Process

In the explanatory statement accompanying the act, House and Senate negotiators assert that DOD has hampered congressional oversight of certain weapons acquisition programs by excessive use of streamlined procedures intended to speed up the fielding of new technologies, bypassing some reporting requirements and other checks built into the routine procurement process.⁴²

At issue is a so-called “middle-tier of acquisition” created by a provision of the FY2016 NDAA (P.L. 114-92, Section 804). Some acquisition reform proponents had contended that the development and deployment of weapons based on promising new technologies was being unduly delayed by the detailed advance planning and testing required by DOD’s standard procedures. In

Facility,” March 7, 2022; DOD, “About Red Hill,” web resource at <https://cnrh.cnic.navy.mil/Operations-and-Management/Red-Hill/About-Red-Hill/>; Patricia Kime, “Legal claims over Red Hill water contamination balloon to 4,600 as November filing deadline looms,” Military News, September 18, 2023 at <https://www.military.com/daily-news/2023/09/18/legal-claims-over-red-hill-water-contamination-balloon-4600-november-filing-deadline-looms.html>.

⁴² U.S. Congress, House Committee on Appropriations, *Consolidated Appropriations Act, 2023*, committee print, 117th Cong., 2nd sess., H.Prt 50-347, Book 1, p. 656.

response, the so-called “Section 804” criteria allowed DOD to bypass some of those procedures in two types of cases:

- Rapid Prototyping, in which innovative technologies would be used to field prototypes of operational equipment within 5 years; and
- Rapid Fielding, in which proven technology would be used to begin production of new equipment within 6 months and to field a full production run in 5 years.

The explanatory statement objects that congressional oversight of rapid prototyping and fielding programs since passage of P.L. 114-92 has been hampered by the lack of some of the documentation dispensed with in the name of streamlining, such as independent cost estimates, technology assessments, and test plans. The statement also expresses concern that the armed services are equipping forces with items justified in budget documentation as RDT&E programs, thus obscuring the total cost of certain programs and prematurely eliminating possible alternatives.⁴³

Section 8059 of the act generally prohibits the use of RDT&E funds to buy equipment for operational use and requires DOD to submit with the FY2024 budget request a detailed report on the planned use of RDT&E funds for testing purposes.⁴⁴

Strategic Nuclear Forces

With relatively few changes, the act funds the Administration’s program for across-the-board modernization of the U.S. “triad” of long-range nuclear weapons systems. The act funds to continue developing the B-21 Raider bomber; a new intercontinental ballistic missile (ICBM) designated the Ground-Based Strategic Deterrent or Sentinel; the *Columbia*-class ballistic missile submarine; and production funds for the bomber and submarine. The act also provides, as requested, the first year of procurement funding for the Long-Range Stand-Off (LRSO) missile, intended to replace the 1970s-vintage air-launched cruise missile carried by U.S. bombers (see **Table 5**).

The total of \$5.9 billion the act provides, as requested, for *Columbia*-class missile submarine procurement includes a \$3.1 billion share of the projected \$15.2 billion cost of the first of the planned class of 12 submarines.⁴⁵ The remaining \$2.8 billion is to buy components or pay for other work in preparation for construction of the other 11 planned subs.

Sea-Launched Cruise Missile

The act adds to the DOD budget request \$45.0 million to continue development of a nuclear-armed, sea-launched cruise missile (SLCM-N). The FY2022 budget included \$15.2 million to develop the weapon, but it was not included in the FY2023 budget by the Biden Administration.⁴⁶

⁴³ Ibid.

⁴⁴ The section permits the Secretary of Defense to waive this restriction on a case-by-case basis by providing certain written justification to the congressional appropriations committees. See Ibid., p. 471, clause (c).

⁴⁵ The \$15.18 billion total includes \$6.56 billion for complete planning and detailed design of ships of the projected class. The Navy typically includes such costs in its budget for the first ship of a new class. The projected total cost of building the first *Columbia*-class ship is \$8.62 billion. For additional background, see CRS Report R41129, *Navy Columbia (SSBN-826) Class Ballistic Missile Submarine Program: Background and Issues for Congress*, by Ronald O'Rourke.

⁴⁶ For background and additional information, see CRS In Focus IF12084, *Nuclear-Armed Sea-Launched Cruise Missile (SLCM-N)*, by Paul K. Kerr and Mary Beth D. Nikitin.

Strategic Nuclear Forces

For background and additional analysis, see CRS In Focus IF10519, *Defense Primer: Strategic Nuclear Forces*, by Paul K. Kerr; and CRS In Focus IF12266, *2022 Nuclear Posture Review*, by Paul K. Kerr.

Table 5. Selected Strategic Nuclear Weapons Systems
(in millions of dollars)

Program (relevant CRS report)	Approp. Type	FY2023 Request	House Committee -reported H.R. 8236	Senate Committee- Explanatory Statement	Enacted Bill Division C
B-21 Bomber (R44463, IF12357)	Proc.	1,786.6	1,776.6	1,586.6	1,656.8
	R&D	3,253.6	3,143.6	3,143.6	3,143.6
Legacy Bomber Upgrades	Proc.	314.9	234.1	246.4	276.3
	R&D	895.4	866.8	859.0	844.9
Columbia-class ballistic missile submarine (R41129)	Proc.	5,871.8	5,857.8	5,857.8	5,871.8
	R&D	392.7	402.7	392.7	401.7
Trident II (D-5) missile mods (IF10519)	Proc.	1,398.3	1,106.4	1,125.2	1,404.6
	R&D	284.5	294.5	302.5	312.5
Sentinel Ground-based Strategic Deterrent (new ICBM) (IF11681)	R&D	3,614.3	3,527.8	3,614.3	3,614.3
	Proc.	51.9	31.5	31.5	51.9
Long-range Standoff Weapon (IF10519, IF12357)	Proc.	51.9	31.5	31.5	51.9
	R&D	928.9	848.9	928.9	928.9

Source: DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022; CRS analysis of Department of Defense Budget Justification Books, FY2023 (see Appendix); H.Rept. 117-388, House Appropriations Committee, *Report of the Committee on Appropriations together with Minority Views [to accompany H.R. 8236]*, June 24, 2022; U.S. Congress, Senate Committee on Appropriations, *Explanatory Statement for the Department of Defense Appropriations Bill, 2023*, July 28, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; and DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2024 Budget Request*, March 2023.

Note: “FY2023 Requested” and “Enacted Bill Division C” amounts reference, where possible, DOD’s *Program Acquisition Cost by Weapon System (PACWS)* reports for FY2023 and FY2024. These reports aggregate budget requests and prior year enacted amounts across all RDT&E and Procurement Program Elements, Projects, and sub-Project efforts. Amounts for House and Senate columns reference reports that are limited to line item level detail. As a result, in some cases amounts in the House and Senate columns may not capture certain sub-Project efforts present in PACWS tables but located in line items predominantly associated with a different weapon system or activity. For weapon systems not individually listed in PACWS, “Enacted Division C” amounts reflect CRS analysis of the explanatory statement accompanying the Consolidated Appropriations Act, 2023.

Precision Strike Weapons

The act generally supports the requests by the Army, Navy, and Air Force for funds to develop and begin fielding various non-nuclear armed, precision-strike missiles. These include ballistic missiles that travel on a parabolic trajectory, cruise missiles that can maneuver during flight, and

hypersonic weapons which – like many ballistic missiles – travel at speeds of at least five times the speed of sound (Mach 5 or more than 3,800 mph) but additionally are capable of maneuvering throughout their course of flight.⁴⁷

Hypersonic weapons include both rocket-launched glide vehicles and cruise missiles powered by air-breathing jets (see **Table 6**).

Long-range Precision Strike Weapons

For background and additional information, see CRS Report R45811, *Hypersonic Weapons: Background and Issues for Congress*, by Kelley M. Saylor, CRS In Focus IF11991, *The U.S. Army’s Long-Range Hypersonic Weapon (LRHW)*, by Andrew Feickert, and CRS Report R45996, *Precision-Guided Munitions: Background and Issues for Congress*, by John R. Hoehn.

Table 6. Selected Precision Strike Systems
(in millions of dollars)

Program <i>(relevant CRS report)</i>	Approp. Type	FY2023 Request	House Committee- reported H.R. 8236	Senate Committee - Explanatory Statement	Enacted Bill Division C
Ballistic Missiles					
Precision Strike Missile (PrSM) [Army] (IF11353)	Proc.	213.2	213.2	162.9	162.9
	R&D	259.5	259.5	259.5	259.5
Mobile Medium-Range Missile [Army] (IF12135)	R&D	404.3	404.3	404.3	404.3
Hypersonic Weapons					
Conventional Prompt Strike [Navy] (R41464)	R&D	1,205.0	1,230.0	1,205.0	1,230.0
Long-Range Hypersonic Weapon [Army] (IF11991)	Proc.	249.3	249.3	249.3	249.3
	R&D	806.7	849.9	811.7	861.7
Air-Launched Rapid Response Weapon (ARRW) [Air Force] (IF11623)	Proc.	46.6	0.0	0.0	0.0
	R&D	115.0	25.0	115.0	115.0
Hypersonic Attack Cruise Missile [Air Force] (IF11623)	R&D	461.8	461.8	483.8	423.8
Subsonic Cruise Missiles					
Joint Air-to-Surface Standoff Missile (IF11353)	Proc.	843.5	1,107.4	1,129.0	785.0
	R&D	117.2	78.2	71.9	117.2
Tomahawk [Navy, Marine Corps] (IF11353)	R&D	132.7	132.7	99.6	122.7
	Proc.	734.4	777.0	759.8	781.8
Naval Strike Missile (IF11353)	Proc.	233.4	233.4	140.9	233.4

⁴⁷ For more on the history of hypersonics, see T.A. Heppenheimer, *Facing the Heat Barrier: A History of Hypersonics*, The NASA History Series, September 2007 at <https://history.nasa.gov/sp4232.pdf>. The term “hypersonic” was coined in 1946 and these weapons have been of considerable interest to military engineers since before that time.

Source: DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022; CRS analysis of Department of Defense Budget Justification Books, FY2023 (see Appendix); H.Rept. 117-388, House Appropriations Committee, *Report of the Committee on Appropriations together with Minority Views* [to accompany H.R. 8236], June 24, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; and DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2024 Budget Request*, March 2023.

Note: “FY2023 Requested” and “Enacted Bill Division C” amounts reference, where possible, DOD’s *Program Acquisition Cost by Weapon System (PACWS)* reports for FY2023 and FY2024. These reports aggregate budget requests and prior year enacted amounts across all RDT&E and Procurement Program Elements, Projects, and sub-Project efforts. Amounts for House and Senate columns reference reports that are limited to line item level detail. As a result, in some cases amounts in the House and Senate columns may not capture certain sub-Project efforts present in PACWS tables but located in line items predominantly associated with a different weapon system or activity. For weapon systems not individually listed in PACWS, “Enacted Division C” amounts reflect CRS analysis of the explanatory statement accompanying the Consolidated Appropriations Act, 2023.

Anti-Missile Defenses

In general, the act supports the DOD funding request to continue fielding anti-missile defenses both for U.S. territory and for U.S. forces and allies abroad (see **Table 7**). This includes support for priorities described by Missile Defense Agency Director Vice Admiral Jon Hill as his top three: homeland defense, defense of Guam, and defenses against hypersonic missiles.⁴⁸

Selected Homeland Defense Programs

The act provides \$785.4 million to fund continued upgrades to the ground-based mid-course ballistic missile defense system currently fielded to defend U.S. territory against intercontinental ballistic missile attacks, enabling an operational fleet of 44 ground-based interceptor missiles deployed in Alaska and California.⁴⁹ This includes, in addition to the amount requested, \$33.2 million to extend the operational life of currently-deployed interceptors.

The act also provides the funds requested for two initiatives intended to enhance homeland missile defense systems:

- \$1.8 billion for development of a new, “Next Generation Interceptor” (NGI) to enable an increase in total deployed interceptor missiles from 44 to 64;⁵⁰ and
- \$75.1 million to field in central Alaska a new “Long-Range Discrimination Radar” intended to be more capable than current radars in distinguishing between incoming missile warheads and decoys.⁵¹

Defense of Guam

The enacted bill includes a total of \$419.7 million –\$4.7 million less than the amount requested – for two budget lines to fund development and deployment of a missile defense network on Guam

⁴⁸ Center for Strategic and International Studies, *MDA and the 2023 Budget: Interview with Vice Admiral Jon Hill*, May 25, 2022 at <https://www.csis.org/analysis/mda-and-2023-budget>.

⁴⁹ See Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Defense Budget Overview: Fiscal Year 2023 Budget Request*, April 2022, p. 2-14.

⁵⁰ U.S. Congress, House Committee on Appropriations, *Consolidated Appropriations Act, 2023*, committee print, 117th Cong., 2nd sess., H.Prt 50-347, Book 1, p. 730. For more information on ballistic missile defense, see CRS In Focus IF10541, *Defense Primer: Ballistic Missile Defense*, coordinated by Kelley M. Saylor.

⁵¹ Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Department of Defense Fiscal Year (FY) 2023 Budget Estimates: Missile Defense Agency*, Defense-Wide Justification Book Volume 2a, April 2022, pp. 665-681.

that could protect the island against attack from any quarter.⁵² The system would integrate four radars, a land-based version of the Navy’s Aegis system, and other Army and Navy equipment to deal with ballistic, hypersonic, and cruise missile threats.

Defense Against Hypersonic Missiles

The act provides \$518.0 million, more than double the \$225.5 million requested, to develop defenses against hypersonic missiles.⁵³ Compared with ballistic missiles, hypersonic weapons pose a more complicated threat because they travel at much lower altitudes and are more maneuverable.⁵⁴

As requested, the act also provides \$89.2 million to continue developing a network of missile tracking satellites designated the Hypersonic and Ballistic Tracking Space Sensor (HBTSS).⁵⁵ Compared with existing ballistic missile tracking systems, HBTSS is intended to locate a target more precisely and transmit that information more quickly to the weapons intended to intercept the target.⁵⁶

Table 7. Selected Missile Defense Systems
(in millions of dollars)

Program (relevant CRS report)	Approp. Type	FY2023 Request	House Committee -reported H.R. 8236	Senate Committee- Explanatory Statement	Enacted Bill Division C
Mid-Course Defense System (IF10541)	Proc.	11.3	11.3	11.3	11.3
	R&D	751.6	751.6	765.6	774.1
Improved Mid-Course Defense System (new interceptor and radar)	R&D	1,908.5	1,908.5	1,908.5	1,908.5
Defense of Guam	Proc.	26.5	26.5	26.5	26.5
	R&D	397.9	374.3	317.9	393.2
Terminal Defense (THAAD and Patriot) (IF10541)	Proc.	1,365.8	1,365.8	1,530.8	1530.8
	R&D	794.5	412.3	417.3	797.5
Hypersonic Missile Defense (IF11623)	R&D	225.5	225.4	518.0	518.0
Aegis Ballistic Missile Defense (RL33745)	Proc.	818.4	818.4	1,150.4	1,150.4
	R&D	782.8	781.7	728.3	771.2

⁵² Several other budget lines include amounts that also would support the Guam missile defense system.
⁵³ U.S. Congress, House Committee on Appropriations, *Consolidated Appropriations Act, 2023*, committee print, 117th Cong., 2nd sess., H.Prt 50-347, Book 1, p. 729.
⁵⁴ Government Accountability Office, *Science & Tech Spotlight: Hypersonic Weapons*, GAO-19-705SP, September 16, 2019, p. 1 at <https://www.gao.gov/products/gao-19-705sp>.
⁵⁵ U.S. Congress, House Committee on Appropriations, *Consolidated Appropriations Act, 2023*, committee print, 117th Cong., 2nd sess., H.Prt 50-347, Book 1, p. 730; Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Department of Defense Fiscal Year (FY) 2023 Budget Estimates: Missile Defense Agency*, Defense-Wide Justification Book Volume 2a, April 2022, pp. 853-861.
⁵⁶ *Ibid.*, p. 853.

Program (relevant CRS report)	Approp. Type	FY2023 Request	House Committee -reported H.R. 8236	Senate Committee- Explanatory Statement	Enacted Bill Division C
Israeli Cooperative Programs (IF10541)	Proc.	120.0	120.0	120.0	120.0
	R&D	300.0	300.0	300.0	300.0
Iron Dome	Proc.	80.0	80.0	80.0	80.0

Source: DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022; CRS analysis of Department of Defense Budget Justification Books, FY2023 (see Appendix); H.Rept. 117-388, House Appropriations Committee, *Report of the Committee on Appropriations together with Minority Views [to accompany H.R. 8236]*, June 24, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; and DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2024 Budget Request*, March 2023.

Notes: Additional funds listed for Hypersonic Missile Defense and for Hypersonic and Ballistic Tracking Space Sensor (HBTSS) are included in other budgetary line items. “FY2023 Requested” and “Enacted Bill Division C” amounts reference, where possible, DOD’s *Program Acquisition Cost by Weapon System (PACWS)* reports for FY2023 and FY2024. These reports aggregate budget requests and prior year enacted amounts across all RDT&E and Procurement Program Elements, Projects, and sub-Project efforts. Amounts for House and Senate columns reference reports that are limited to line item level detail. As a result, in some cases amounts in the House and Senate columns may not capture certain sub-Project efforts present in PACWS tables but located in line items predominantly associated with a different weapon system or activity. For weapon systems not individually listed in PACWS, “Enacted Division C” amounts reflect CRS analysis of the explanatory statement accompanying the Consolidated Appropriations Act, 2023.

DOD Space Programs

In its report to accompany H.R. 8236, the House Appropriations Committee questioned the long-term realism of the budget request for the U.S. Space Force, created by the FY2020 NDAA as a separate armed service within the Department of the Air Force:⁵⁷

[T]he Space Force’s ambitious plans ...do not appear to be backed up with credible budget projections in the outyears to actually deliver these capabilities....The lack of a credible five-year budget raises fundamental questions about whether any serious analysis or long-term planning has been done to assess the realism and affordability of the entire portfolio....[T]he Space Force’s plans and programs must be based on rigorous technical analysis matched with executable plans resourced by realistic budgets. The current plan does not meet this expectation....

The committee directed the Air Force to provide a detailed briefing on the costs, affordability, executability, and risks of current and planned Space Force programs (see **Table 8**).⁵⁸

Missile Tracking Satellite Networks

The enacted bill provides a slight increase over the \$4.7 billion requested to continue developing two new networks of ballistic missile tracking satellites to replace the Space-Based Infra-Red System (SBIRS) satellites currently in orbit. Whereas SBIRS relies on a relatively small number of relatively large and complex satellites, the planned replacement systems would rely on a larger

⁵⁷ For background, see CRS In Focus IF11495, *Defense Primer: The United States Space Force*, by Kelley Saylor.

⁵⁸ H.Rept. 117-388, House Appropriations Committee, *Report to Accompany Department of Defense Appropriations Bill, 2023* [H.R. 8236], June 24, 2022, p. 232.

number of smaller satellites, thus complicating any adversary’s attempt to neutralize the system by taking out a small number of the satellites.⁵⁹

To continue development of the Next-Generation Overhead Persistent Infra-Red (OPIR) system, slated to begin supplanting SBIRS in 2025, the enacted bill provides \$3.4 billion of the \$3.5 billion requested.

To continue development of the Resilient Missile Warning Tracking System that will comprise several dozen relatively small satellites in orbits lower than SBIRS, the enacted bill provides \$1.2 billion, an increase of \$142.8 million over the request.

Table 8. Selected Defense Space Systems
(in millions of dollars)

Program (relevant CRS report)	Approp. Type	FY2023 Request	House Committee-reported H.R. 8236	Senate Committee - Explanatory Statement	Division C
National Security Space Launch (IFI 1531)	Proc.	1,409.6	1,009.0	1,025.5	1,881.9
	R&D	142.0	154.1	204.1	329.1
Global Positioning System (GPS) Enterprise	Proc.	767.9	756.3	736.9	753.5
	R&D	1,071.9	1,062.7	895.2	953.9
Missile Detection and Tracking Satellites					
SBIRS missile detection satellites	Proc.	148.7	142.0	148.7	148.7
Next Generation Overhead Persistent Infra-Red (OPIR) missile detection satellites	R&D	3,479.5	3,452.3	2,805.2	3,353.3
Resilient Missile Warning Missile Tracking (follow-on to Next-Generation OPIR)					
• Low Altitude Satellites	R&D	499.8	525.6	899.8	763.8
• Medium Altitude Satellites		139.1	262.7	439.1	408.5
• Ground Systems		390.6	0.0	174.6	0.0
Hypersonic and Ballistic Missile Tracking Space Sensor	R&D	89.2	89.2	89.2	89.2

Source: CRS analysis of Department of Defense Budget Justification Books, FY2023 (see Appendix); DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022; CRS analysis of Department of Defense Budget Justification Books, FY2023 (see Appendix); H.Rept. 117-388, House Appropriations Committee, *Report to Accompany Department of Defense Appropriations Bill, 2023* [H.R. 8236], June 24, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; and DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2024 Budget Request*, March 2023.

⁵⁹ DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022, p. 7-4.

Note: “FY2023 Requested” and “Enacted Bill Division C” amounts reference, where possible, DOD’s *Program Acquisition Cost by Weapon System (PACWS)* reports for FY2023 and FY2024. These reports aggregate budget requests and prior year enacted amounts across all RDT&E and Procurement Program Elements, Projects, and sub-Project efforts. Amounts for House and Senate columns reference reports that are limited to line item level detail. As a result, in some cases amounts in the House and Senate columns may not capture certain sub-Project efforts present in PACWS tables but located in line items predominantly associated with a different weapon system or activity. In limited cases, PACWS may include enacted values from other divisions of the act. For weapon systems not individually listed in PACWS, “Enacted Division C” amounts reflect CRS analysis of the explanatory statement accompanying the Consolidated Appropriations Act, 2023.

Ground Systems

In general, the enacted bill supports ongoing Army and Marine Corps programs to modernize the services’ suite of armored combat vehicles and to field systems designed to deal with unmanned aerial vehicles (UAVs) and other aerial threats. Tracking H.R. 8236, the enacted bill adds \$187.1 million to the \$493.0 million requested to accelerate modernization of the Army’s Paladin self-propelled artillery. Like S. 4663, it nearly doubles the amount requested to upgrade M-1 Abrams tanks, adding \$591.0 million to the \$656.3 million request, procuring an additional 46 vehicles (see **Table 9**).

IVAS Night Vision System

The enacted bill provides \$40 million of the \$400.0 million requested to purchase thousands of wearable night-vision goggles on which troops could see targeting cross-hairs and navigation information, as on the heads-up display (HUD) in a fighter plane’s cockpit. In March 2021, the Army contracted with Microsoft to spend up to \$21.9 billion over 10 years to procure this Integrated Visual Augmentation System (IVAS), based on the firm’s HoloLens augmented reality goggles.⁶⁰ As it had done with the Army’s FY2022 IVAS budget request, Congress justified its action on the FY2023 request by citing various hardware and software problems with IVAS that surfaced in the course of tests by DOD’s independent operational testing office.

On January 6, 2023, the Army announced that Microsoft was going to further modify the device to better adapt it for use in a combat environment.⁶¹

Table 9. Selected Ground Combat Systems
(in millions of dollars)

Program <i>(relevant CRS report)</i>	Approp. Type	FY2023 Request	House Committee -reported H.R. 8236	Senate Committee- Explanatory Statement	Division C
Integrated Visual Augmentation System (IVAS) <i>(IF12010)</i>	Proc.	400.0	0.0	50.0	40.0
M-1 Abrams tank upgrades	Proc.	656.3	634.3	1,258.3	1,247.3
Bradley Fighting Vehicle Mods	Proc.	279.5	212.8	279.5	260.4

⁶⁰ Sydney Freedberg, Jr., “IVAS: Microsoft award by Army worth up to \$21.9B,” *Breaking Defense*, March 31, 2021.

⁶¹ See Ashley Roque, “Moving on: Army and Microsoft agree on path ahead for IVAS with latest 1.2 variant,” *Breaking Defense*, January 05, 2023 at <https://breakingdefense.com/2023/01/moving-on-army-and-microsoft-agree-on-path-ahead-for-ivas-with-latest-1-2-variant/>. For additional background, see CRS In Focus IF12010, *Military Applications of Extended Reality*, by Kelley M. Saylor.

Program <i>(relevant CRS report)</i>	Approp. Type	FY2023 Request	House Committee -reported H.R. 8236	Senate Committee-Explanatory Statement	Division C
Stryker Combat Vehicles and Mods	Proc.	671.3	643.0	891.2	891.2
Paladin 155 mm. self-propelled howitzer	Proc.	493.0	680.1	493.0	680.1
Guided MLRS artillery rockets and launchers	Proc.	792.6	792.6	792.6	792.6
Next Generation Combat Vehicles					
Mobile Protected Firepower [<i>light tank</i>] (FI1859)	Proc.	356.7	354.7	356.7	354.7
Optionally-Manned Fighting Vehicle [<i>Bradley replacement</i>] (FI2094)	R&D	589.8	561.9	577.8	554.9
Amphibious Combat Vehicle (<i>Marine Corps</i>) (FI1755)	Proc.	536.7	502.0	527.1	527.1
Short-range anti-aircraft, anti-rocket defenses (R46463)					
Indirect Fire Protection Capability, Increment 2	Proc.	18.9	18.9	18.9	18.9
	R&D	131.1	131.1	131.1	131.1
M-SHORAD	Proc.	135.7	135.7	135.7	135.7
	R&D	225.1	225.1	214.8	274.8
Lower-Tier Air and Missile Defense Sensor	Proc.	13.5	13.5	13.5	13.5
	R&D	382.1	380.1	380.1	380.1

Source: DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022; CRS analysis of Department of Defense Budget Justification Books, FY2023 (see Appendix); H.Rept. 117-388, House Appropriations Committee, *Report to Accompany Department of Defense Appropriations Bill, 2023* [H.R. 8236], June 24, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; and DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2024 Budget Request*, March 2023.

Note: “FY2023 Requested” and “Enacted Bill Division C” amounts reference, where possible, DOD’s *Program Acquisition Cost by Weapon System (PACWS)* reports for FY2023 and FY2024. These reports aggregate budget requests and prior year enacted amounts across all RDT&E and Procurement Program Elements, Projects, and sub-Project efforts. Amounts for House and Senate columns reference reports that are limited to line item level detail. As a result, in some cases amounts in the House and Senate columns may not capture certain sub-Project efforts present in PACWS tables but located in line items predominantly associated with a different weapon system or activity. For Guided MLRS rockets and launchers, the FY2024 PACWS enacted value for FY2023 is \$1,319.6 million, indicating \$527.0 million of GMLRS procurement is appropriated in another division of the act. For weapon systems not individually listed in PACWS, “Enacted Division C” amounts reflect CRS analysis of the explanatory statement accompanying the Consolidated Appropriations Act, 2023.

Shipbuilding Programs

The enacted bill adds a total of \$4.0 billion to the Navy’s \$27.9 billion shipbuilding request, for an enacted total of \$32.0 billion. The upward adjustments include:

- \$2.2 billion for a third destroyer equipped with the Aegis anti-aircraft/anti-missile defense system in addition to the two ships included in the budget request;⁶² and
- \$645.0 million for two high-speed troop transports modified to serve as hospital ships⁶³

Also added is a total of \$803.1⁶⁴ million for ships that could support Marine Corps expeditionary landings:

- \$289.0 million for components to be used in an additional helicopter carrier;
- \$250.0 million for components to be used in an LPD-type amphibious landing transport; and
- \$264.1 million for three of the large hovercraft the Marines use to haul missile launchers and other heavy equipment ashore from transport ships (see **Table 10**).

Proposed Ship Retirements

The DOD budget request assumed some cost reductions as the result of retiring 24 Navy ships, including nine *Freedom*-class Littoral Combat Ships (LCS), four of which had been commissioned in 2019 and 2020. The LCS program has been controversial over the years due to past cost growth, design and construction issues, concerns over their ability to withstand battle damage, and concerns over the development and testing of modular mission packages.⁶⁵ Section 8079 of the enacted bill prohibits the use of funds to decommission five of the LCS ships as planned.

Table 10. Selected Shipbuilding Programs

in millions of dollars

Program (relevant CRS report)	Approp. Type	FY2023 Request	House Committee -reported H.R. 8236	Senate Committee- Explanatory Statement	Division C
Ford-class aircraft carrier (RS20643)	Proc.	3,064.3	2,515.9	2,517.0	3,572.4
Carrier-refueling and modernization	Proc.	718.5	573.4	612.1	674.1
Virginia-class attack submarine (RL32418)	Proc.	6,953.5	6,559.8	6,559.8	6,953.5
Aegis destroyer	Proc.	4,994.9	4,994.9	7,642.2	8,021.7

⁶² Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), p. S8135.

⁶³ *Ibid.*, p. S8136.

⁶⁴ *Ibid.*, pp. S8135-S8136.

⁶⁵ For background, see CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background and Issues for Congress*, by Ronald O'Rourke.

Program (relevant CRS report)	Approp. Type	FY2023 Request	House Committee -reported H.R. 8236	Senate Committee- Explanatory Statement	Division C
Frigate (R44972)	Proc.	1,160.2	1,085.2	1,135.2	1,135.2
Fleet Oiler (R43546)	Proc.	970.3	794.7	782.6	958.2
Amphibious Landing Transport (LPD) (R43543)	Proc.	1,673.0	1,673.0	1,923.0	1,923.0
Helicopter carrier (LPH)	Proc.	1,085.5	1,085.5	1,374.5	1,374.5
Expeditionary Fast Transport Ship (EPF) (hospital ship variant) (RL32665)	Proc.	--	--	645.0	645.0
Ship-to-Shore Connector (air-cushion landing craft)	Proc.	190.4	190.4	454.5	454.5
Light Amphibious Warship (now the Navy Medium Landing Ship (LSM)) (R46374)	R&D	12.2	12.2	12.2	12.2
Next Generation Logistics Ship (now the Navy Light Replenishment Oiler) (IF11674)	R&D	3.0	3.0	3.0	3.0
Large Unmanned Surface Vehicles (R45757)	R&D	146.8	146.8	122.3	136.8
Medium Unmanned Surface Vehicles (R45757)	R&D	104.0	104.0	86.4	86.4
Unmanned Surface Vehicle Enabling Capabilities (R45757)	R&D	181.6	181.6	181.6	181.6

Source: DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022; CRS analysis of Department of Defense Budget Justification Books, FY2023; H.Rept. 117-388, House Appropriations Committee, *Report to Accompany Department of Defense Appropriations Bill, 2023* [H.R. 8236], June 24, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2024 Budget Request*, March 2023.

Notes: Data for the *Columbia*-class missile-launching submarine is included in **Table 5**. “FY2023 Requested” and “Enacted Bill Division C” amounts reference, where possible, DOD’s *Program Acquisition Cost by Weapon System* (PACWS) reports for FY2023 and FY2024. These reports aggregate budget requests and prior year enacted amounts across all RDT&E and Procurement Program Elements, Projects, and sub-Project efforts. Amounts for House and Senate columns reference reports that are limited to line item level detail. As a result, in some cases amounts in the House and Senate columns may not capture certain sub-Project efforts present in PACWS tables but located in line items predominantly associated with a different weapon system or activity (such as “outfitting” ships with initial spare parts and other post-delivery costs). Enacted Division C totals for shipbuilding also include appropriations in Section 8074 of the enacted bill covering “prior year shipbuilding cost increases” reflected in

the FY2024 PACWS report. For weapon systems not individually listed in PACWS, “Enacted Division C” amounts reflect CRS analysis of the explanatory statement accompanying the Consolidated Appropriations Act, 2023.

Aircraft Programs

The enacted bill generally funds the request for DOD aircraft with some relatively significant upward adjustments. Among amounts added to the budget request are:

- \$0.9 billion for 16 F-35 fighters, in addition to the \$8.9 billion requested for procurement of 61 of the aircraft, different versions of which are used by the Navy, Marine Corps, and Air Force;⁶⁶
- \$600 million for eight Navy F/A-18s, which is to sustain a production line DOD had planned to shut down;
- \$273 million for 10 Blackhawk troop-carrying helicopters for the Army National Guard, in addition to the \$650.4 million requested for 25 new Blackhawks (see **Table 11**).⁶⁷

AWACS Replacement

The enacted bill provides \$426.8 million – \$187.1 million more than was requested – to continue development work on a replacement for the 1980s-vintage E-3 Airborne Warning and Control System (AWACS) aircraft. The E-3, based on the Boeing 707 jetliner, scans the surrounding airspace with a rotating, saucer-shaped radar antenna 30-feet-wide.

The planned replacement, designated the E-7, is a modified Boeing 737. It carries a blade-like radar antenna, about 10-feet high, which runs along the top of the aircraft and which scans electronically, rather than by mechanical rotation. The Royal Australian Air Force has operated this type, nicknamed “Wedgetail,” since 2015.

Combat Rescue Helicopter

The enacted bill provides \$1.21 billion for 20 Combat Rescue Helicopters, an increase of \$499 million and 10 aircraft over the budget request. This version of the Blackhawk helicopter (designated HH-60W) is equipped with additional fuel tanks and other modifications to support the mission of retrieving downed pilots and other personnel who might be behind enemy lines.

Table 11. Selected Military Aviation Programs

(in millions of dollars)

Program (relevant CRS report)	Approp. Type	FY2023 Request	House Committee- reported H.R. 8236	Senate Committee- Explanatory Statement	Division C
F-35 Joint Strike Fighter (RL30563, IF12357)	Proc.	8,915.6	8,653.54	8,772.2	9,802.2
	R&D	2,103.1	2,173.1	2,058.4	2,128.4
F-15s and Mods (IF11521, R46801)	Proc.	3,140.6	2,569.1	3,035.6	3,035.6
	R&D	365.1	319.8	347.5	351.9

⁶⁶ CRS analysis of FY2023 and FY2024 *Program Acquisition Cost by Weapon System* reports.

⁶⁷ As requested, the enacted bill also provides \$178.7 million to rebuild 28 early model Blackhawks to the current configuration.

Program <i>(relevant CRS report)</i>	Approp. Type	FY2023 Request	House Committee-reported H.R. 8236	Senate Committee-Explanatory Statement	Division C
F-16 Mods	Proc.	700.5	771.0	630.4	741.3
	R&D	244.7	249.7	242.5	247.5
F/A-18 Hornet and Mods <i>(IF10546)</i>	Proc.	1,430.4	1,308.4	1,414.5	1,947.5
	R&D	355.6	367.5	328.8	371.8
F-22 Mods	Proc.	764.2	747.9	764.2	747.9
	R&D	559.7	559.7	559.7	559.7
KC-46 tanker <i>(RL34398)</i>	Proc.	2,684.5	2,674.8	2,407.5	2,458.7
	R&D	197.5	176.2	184.8	177.5
VC-25B [Air Force One replacement]	R&D	492.9	397.9	392.9	147.9
AWACS replacement <i>(IF12045)</i>	R&D	239.7	206.8	540.7	426.8
C/MC/KC-130J Hercules cargo plane and Mods <i>(IF10546)</i>	Proc.	1,082.0	908.7	2,639.4	2,863.3
Combat Rescue Helicopter	Proc.	710.1	694.0	1,006.0	1,209.1
UH-60 Blackhawk and Mods <i>(IF10546)</i>	Proc.	897.2	1,170.2	897.2	1,170.2
AH-64 Apache and Mods <i>(IF10546)</i>	Proc.	779.7	779.7	779.7	779.7
CH-47 Chinook and Mods	Proc.	199.1	239.1	410.2	437.8
Next-Generation Aircraft					
Next-Generation Air Dominance (NGAD) [Air Force] <i>(IF11659)</i>	R&D	1,657.7	1,657.7	1,657.7	1,657.7
Future Vertical Lift [Army replacements for Blackhawk and scout helicopters] <i>(IF11367)</i>	R&D	1,162.3	1,131.6	1,191.3	1,157.6
Next-Generation Aircraft Engines					
Advanced Engine Development [Air Force]	R&D	353.7	353.7	353.7	506.5
Improved Turbine Engine [Army]	R&D	228.0	228.0	228.0	228.0

Source: DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2023 Budget Request*, April 2022; CRS analysis of Department of Defense Budget Justification Books, FY2023 (see Appendix); H.Rept. 117-388, House Appropriations Committee, *Report to Accompany Department of Defense Appropriations Bill, 2023* [H.R. 8236], June 24, 2022; Senate debate, *Congressional Record*, vol. 168, No. 198 (December 20, 2022), pp. S.8029-S.8285; and DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Program Acquisition Cost by Weapon System: United States Department of Defense, Fiscal Year 2024 Budget Request*, March 2023.

Notes: Data for the B-21 Raider bomber is included in **Table 5**. “FY2023 Requested” and “Enacted Bill Division C” amounts reference, where possible, DOD’s *Program Acquisition Cost by Weapon System (PACWS)* reports for FY2023 and FY2024. These reports aggregate budget requests and prior year enacted amounts across all RDT&E and Procurement Program Elements, Projects, and sub-Project efforts. Amounts for House and Senate columns reference reports that are limited to line item level detail. As a result, in some cases amounts in the House and Senate columns may not capture certain sub-Project efforts present in PACWS tables but located in line items predominantly associated with a different weapon system or activity. For weapon systems not individually listed in PACWS, “Enacted Division C” amounts reflect CRS analysis of the explanatory statement accompanying the Consolidated Appropriations Act, 2023.

Appendix.

Tables 3-9 of this report summarize the amounts requested by the Biden Administration, recommended by the House and Senate, and agreed to in the enacted version for procurement and/or research and development (R&D) regarding selected weapons programs in each of several broad categories, e.g., missile defense, ground combat. The funding data for these selected programs is drawn from 17 procurement appropriation accounts and five R&D accounts that are components of the DOD budget. Each of those accounts is further subdivided into “line items”—dozens of them in some procurement accounts, and hundreds of them in most of the R&D accounts.

The official DOD labels of some line items may not correspond to the names that commonly are used to refer to programs in the course of congressional deliberations. Moreover, funding for a single program may be spread across several line items. In addition, R&D funding for a particular program may be only one of several projects funded by a single line item.

Selection of the budget lines to be included in the totals for any program listed in any of the Tables is based on CRS analysis. For further information concerning any specific instance, congressional staff may consult relevant CRS products listed in the tables or any of the following CRS analysts.

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