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FY2022 National Defense Authorization Act: Context and Selected Issues for Congress

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SUMMARY

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May 20, 2022

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FY2022 National Defense Authorization Act: Context and Selected Issues for Congress

The National Defense Authorization Act (NDAA) is policy legislation typically introduced and reported each year by the House Armed Services Committee (HASC) and the Senate Armed Services Committee (SASC). The act primarily sets policy and authorizes appropriations for activities of the Department of Defense (DOD) and national security programs of the Department of Energy (DOE). FY2022 marked the 61st consecutive year for which Congress enacted an annual defense authorization.

On May 28, 2021, President Joseph R. Biden submitted to Congress a budget request for fiscal year (FY) 2022 that included $768.3 billion for national defense-related activities, including discretionary and mandatory programs. Of that amount, $743.1 billion fell within the scope of the National Defense Authorization Act for Fiscal Year 2022 (FY2022 NDAA; H.R. 4350; S. 2792; S. 1605; P.L. 117-81), with $714.8 billion for DOD activities, $27.9 billion for DOE activities, and $0.4 billion for other defense-related activities. The requested amount within the scope of the NDAA was $11.5 billion (1.6%) more than the FY2021 authorized amount. On September 22, 2021, the SASC reported a version of the bill (S. 2792) that would have authorized $767.7 billion. On September 23, 2021, the House passed a version of the NDAA (H.R. 4350) that would have authorized $768.1 billion. On December 27, 2021, President Biden signed into law the FY2022 NDAA, which authorized $768.2 billion—$25.1 billion (3.4%) more than the request.

The President's budget request was the first in a decade not subject to statutory spending limits, or *caps*, set by the Budget Control Act of 2011 (BCA; P.L. 112-25; 2 U.S.C. §901), as amended. The request proposed discontinuing funding designated for *Overseas Contingency Operations/Global War on Terrorism* (OCO/GWOT), a special type of funding that was, in effect, exempt from the caps. Instead, the Administration requested funding for contingency operations in the regular, or *base*, DOD budget (i.e., funding for planned or regularly occurring costs to staff, train, and equip the military).

Following the August 2021 collapse of the U.S.-backed Afghan government and its security forces and the withdrawal of U.S. military personnel from Afghanistan, the FY2022 NDAA did not authorize funding for the Afghanistan Security Forces Fund (ASFF). The legislation authorized funding for activities in support of the European Deterrence Initiative (EDI), including $300 million for the Ukraine Security Assistance Initiative, through which DOD provides lethal equipment and other support to the Ukrainian military and security forces. The legislation also authorized $7.1 billion for activities in support of the Pacific Deterrence Initiative (PDI), an effort intended to strengthen U.S. defense posture in the Indo-Pacific region, primarily west of the International Date Line.

The FY2022 NDAA authorized a military end-strength of 2.15 million personnel in the active and reserve components, comparable to the requested level. The legislation supported a 2.7% military pay raise, in line with the formula in current law. Among the programs for which Congress authorized more funding than requested were the Arleigh Burke (DDG-51) class destroyer; the F-35A Lightning II fighter jet, and a Homeland [missile] Defense Radar system (HDR-H) in Hawaii. The legislation authorized a total of $437 million for 50 earmarks (also known as congressionally directed spending or Community Project Funding items) within DOD research, development, test and evaluation (RDT&E) and military construction (MILCON) accounts. Among the programs for which Congress authorized less funding than requested were the Army's next-generation night-vision technology (known as the Integrated Visual Augmentation System, or IVAS), naval auxiliary vessels, and a type of ship-defense missile.

The legislation required the appointment of a special trial counsel within each of the armed services to deal with sexual assault and military justice matters; directed policy changes and oversight requirements related to various environmental matters, including per- and polyfluoroalkyl substances (PFAS), burn pits, and fuel leaks; and established a commission to review and issue recommendations to improve the effectiveness of DOD's Planning, Programming, Budgeting, and Execution (PPBE) process. Among the issues debated by one or both chambers during consideration of the bill but not included in the enacted version were provisions that would have required women to register for the draft.

This report compares authorizations for major defense appropriations titles, programs, and policy matters in the Administration's FY2022 budget request, House-passed and SASC-reported versions of the FY2022 NDAA, and enacted legislation. This report also provides references to other CRS reports that provide in-depth analysis and contextual information on certain defense and foreign policy issues.

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Introduction

The National Defense Authorization Act (NDAA) is a defense policy bill, typically introduced and reported each year by the House Armed Services Committee (HASC) and the Senate Armed Services Committee (SASC). Unlike an appropriations act, the NDAA generally does not provide funding (i.e., *budget authority*).[1] The legislation sets policy and authorizes appropriations for the Department of Defense (DOD), nuclear weapons and reactor programs of the Department of Energy (DOE), and certain other defense-related activities.[2]

The NDAA is a vehicle through which Congress fulfills its responsibility as mandated in Article I, Section 8, of the U.S. Constitution. This section of the Constitution provides Congress with the authority to "provide for the common Defence," "raise and support Armies," "provide and maintain a Navy," and "make Rules for the ... Regulation of the land and naval Forces," among other powers.[3]

The legislation establishes or continues defense programs, projects, or activities, and provides guidance on how appropriated funds are to be used in carrying out those efforts. While the NDAA does not provide budget authority, historically it has provided an indicator of congressional intent on funding for particular programs. The bill authorizes funding for DOD activities at the same level of detail at which budget authority is provided by the corresponding defense and military construction appropriations acts. As defense authorization and appropriations legislation can differ on a line-item level, an authorization of appropriations can be reviewed as a funding target rather than a ceiling.

The NDAA has a history of regular enactment; FY2022 marked the 61st consecutive year for which an annual defense authorization was enacted.[4] The bill sometimes serves as a vehicle for legislation originating in committees other than the Armed Services committees. This report focuses solely on defense-related matters in the legislation.

CRS Products on the NDAA

For more information on the NDAA, see CRS In Focus IF10515, *Defense Primer: The NDAA Process* and CRS In Focus IF10516, *Defense Primer: Navigating the NDAA*. For historical information on defense authorizations, see CRS Report 98-756, *Defense Authorization and Appropriations Bills: FY1961-FY2021*. For more information on the federal budget process, see CRS Report R46240, *Introduction to the Federal Budget Process*. For more information on the differences between authorizations and appropriations, see CRS Report R46497, *Authorizations and the Appropriations Process*.

[1] Budget authority is authority provided by law to a federal agency to obligate money for goods and services. For more information, see Government Accountability Office (GAO), *A Glossary of Terms Used in the Federal Budget Process*, September 2005, p. 20, at https://www.gao.gov/assets/gao-05-734sp.pdf.

[2] The national defense budget function (identified by the numerical notation 050) comprises three subfunctions: Department of Defense (DOD)–Military (051); atomic energy defense activities primarily of the Department of Energy (053); and other defense-related activities (054), such as FBI counterintelligence activities. For the most part, the NDAA does not authorize funds for the national defense budget subfunction 054 (Other Defense-Related). For more information on the national defense budget function, see the following section and CRS In Focus IF10618, *Defense Primer: The National Defense Budget Function (050)*.

[3] U.S. Constitution, Article 1, Section 8, at https://www.senate.gov/civics/constitution_item/constitution.htm#a1_sec8.

[4] For more information, see CRS Report 98-756, *Defense Authorization and Appropriations Bills: FY1961-FY2021*.

Background

This section provides background on congressional action on FY2022 defense authorization legislation, including the strategic and budgetary context in which it occurred, as well as details on the FY2022 President's budget request.

Strategic Context[5]

Congressional consideration of the FY2022 NDAA occurred as the Biden Administration was developing strategies for national security and defense programs. By law, for example, the President is required to submit to Congress a National Security Strategy (NSS; 50 U.S.C §3043) and the Secretary of Defense a National Defense Strategy (NDS; 10 U.S.C. §113).[6]

The Biden Administration stated that efforts to align spending priorities with the President's Interim National Security Strategic Guidance (INSSG) helped shape its FY2022 defense budget request.[7] Officials said Secretary of Defense Lloyd J. Austin III planned to submit the NDS in early 2022.[8] In March 2021, the President released the INSSG, which stated that the United States faces "growing rivalry" with China, Russia, and other authoritarian states, and would "work to responsibly end America's longest war in Afghanistan."[9]

Elements of the INSSG appeared to build on aspects of the Trump Administration's national strategy documents, including the 2017 NSS and 2018 NDS.[10] The 2018 NDS unclassified summary emphasized retaining a U.S. strategic competitive edge relative to China and Russia rather than countering violent extremist organizations.[11] This emphasis and the call for "increased and sustained investment" to counter evolving threats from China and Russia marked a change in weight from previous strategy documents.[12] While the INSSG included references to investment in national defense, its pledge to "increase investments in technology research, development, and deployment" occurred in the context of risks posed by climate change.[13]

The Trump Administration's 2018 NDS, however, did not address the question of pandemics or climate change as national security threats. The Biden Administration's INSSG, by comparison, referenced "pandemics and other biological risks, the escalating climate crisis, cyber and digital threats, international economic disruptions, protracted humanitarian crises," among other threats.[14]

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[5] This section was coordinated with Kathleen J. McInnis, former CRS Specialist in International Security.

[6] See 50 U.S.C. §3043.

[7] Department of Defense (DOD), *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. 1-3.

[8] Senate Armed Services Committee (SASC), *Advance Policy Questions for Dr. Mara Karlin, Nominee to be Assistant Secretary of Defense for Strategy, Plans, and Capabilities*, released July 13, 2021, p. 6.

[9] White House, *Interim National Security Strategic Guidance*, March 2021, pp. 6, 15.

[10] For background and analysis on the Interim National Security Strategic Guidance, see CRS In Focus IF11798, *The Interim National Security Strategic Guidance*.

[11] DOD, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, p. 1.

[12] Ibid., p. 4.

[13] White House, *Interim National Security Strategic Guidance*, March 2021, p. 17.

[14] Ibid., p. 7.

The INSSG pledged to prioritize "new resources for diplomacy and development" and identified defense priorities as follows:

- **Military personnel.** ("continue to invest in the people who serve in our all-volunteer forces and their families.");
- **Readiness.** ("sustain readiness and ensure that the U.S. Armed Forces remain the best trained and equipped force in the world.");
- **Force structure.** ("assess the appropriate structure, capabilities, and sizing of the force, and, working with the Congress, shift our emphasis from unneeded legacy platforms and weapons systems to free up resources for investments in the cutting-edge technologies and capabilities that will determine our military and national security advantage in the future.");
- **Acquisition processes.** ("streamline the processes for developing, testing, acquiring, deploying, and securing [cutting-edge technologies and capabilities].");
- **DOD workforce.** ("ensure that we have the skilled workforce to acquire, integrate, and operate them.");
- **Ethical technology use.** ("shape ethical and normative frameworks to ensure [cutting-edge technologies and capabilities] are used responsibly.");
- **Special operations forces.** ("maintain the proficiency of special operations forces to focus on crisis response and priority counterterrorism and unconventional warfare missions.");
- **Gray-zone capabilities.** ("develop capabilities to better compete and deter gray zone actions.");[15]
- **Climate resiliency.** ("prioritize defense investments in climate resiliency and clean energy."); and
- **Equal opportunity.** ("work to ensure that the Department of Defense is a place of truly equal opportunity where our service members do not face discrimination or the scourge of sexual harassment and assault.").[16]

In 2018, the National Defense Strategy Commission, established by Section 942 of FY2017 NDAA (P.L. 114-328; 130 Stat. 2367) to provide an independent assessment of the NDS, recommended that policymakers increase defense spending by 3% to 5% per year in real terms (i.e., adjusting for inflation)—or alter expectations of the strategy and America's global strategic objectives.[17]

In written responses prepared for the SASC in response to advance policy questions for his 2021 nomination as Defense Secretary, Austin wrote, "The most urgent challenge we face is the

[15] The *DOD Dictionary of Military and Associated Terms* does not define "gray zone." In general, the term refers to military actions short of war, such as cyber and information operations. For example, one academic states that DOD officials "use the term to denote confrontations at the low end of the conflict spectrum in which war is not yet underway, but military coercion is occurring to alter the status quo." For more information, see James J. Wirtz, "Life in the 'Gray Zone': Observations for Contemporary Strategists," *Defense and Security Analysis*, vol. 33, no. 2, 2017: 106-114.

[16] White House, *Interim National Security Strategic Guidance*, March 2021, pp. 14-15, 22.

[17] Eric Edelman and Gary Roughead (co-chairs), *Providing for the Common Defense: The Report of the National Defense Strategy Commission*, United States Institute of Peace, November 2018, p. 52.

pandemic," referring to the outbreak of the Coronavirus Disease 2019 (COVID-19).[18] Austin described many of the concepts in the 2018 NDS as "fundamentally sound" and China as the "pacing threat in most areas."[19] He wrote that the strategy "assumes sustained defense budget growth, but that has not fully materialized."[20] Austin pledged to undertake a comprehensive strategic review and called for DOD to be "prepared for modest growth in the coming years."[21] He wrote, "Given the fragile state of our economy and the large deficits required to combat the impact of COVID, I expect fiscal pressure going forward."[22] Austin also pledged to review U.S. nuclear posture and the Navy's 30-year shipbuilding plan.[23]

In written responses prepared for the same committee for her 2021 nomination as Deputy Defense Secretary, Kathleen H. Hicks made related points, writing, "in light of COVID-19's ongoing impact, the Department must be fiscally pragmatic if it is to design a successful approach to strategic competition."[24] In earlier writing, Hicks argued DOD could reduce its annual costs by $20 billion to $30 billion without detracting from national security objectives "after some upfront investment."[25] In her written responses for the SASC, Hicks described some of the upfront investments that could yield future savings as "workforce incentives—from buy-outs to recruiting bonuses, investments in technologies such as artificial intelligence and robotics, and cyber defense."[26]

In considering the FY2022 NDAA, some Members of Congress proposed increasing authorized defense appropriations by 3% per year above inflation to prepare for long-term strategic competition with China and Russia.[27] Other Members of Congress recommended decreasing defense spending to fund other priorities, such as response to the COVID-19 pandemic.[28]

Including amounts for national defense discretionary programs that were not in the jurisdiction of HASC or SASC, discretionary programs that did not require additional authorization, and national defense mandatory programs that were previously authorized, the total budget authority implication of the enacted FY2022 NDAA was $790.6 billion.[29] That amount was $25.1 billion

[18] SASC, "Advance Policy Questions for Lloyd J. Austin, Nominee for Appointment to be Secretary of Defense," January 19, 2021, p. 3.

[19] Ibid., pp. 7, 44.

[20] Ibid., p. 7.

[21] Ibid., p. 13.

[22] Ibid., p. 14.

[23] Ibid., pp. 67, 84.

[24] SASC, "Advance Policy Questions for Dr. Kathleen Hicks, Nominee for Appointment to be Deputy Secretary of Defense," February 2, 2021, p. 18.

[25] Kathleen Hicks, "Getting to Less: The Truth About Defense Spending," *Foreign Affairs*, March/April 2020, at https://www.foreignaffairs.com/articles/2020-02-10/getting-less. At the time of the article, Hicks was Director of the International Security Program at the Center for Strategic and International Studies.

[26] SASC, "Advance Policy Questions for Dr. Kathleen Hicks," p. 19.

[27] See, for example, House Armed Services Committee (HASC), "Rogers Amendment to Increase Defense Budget Topline Is Adopted," minority press release, September 1, 2021, at https://republicans-armedservices.house.gov/news/press-releases/rogers-amendment-increase-defense-budget-topline-adopted.

[28] See, for example, Representative Ro Khanna, "Statement: Khanna Criticizes Defense Spending Increase in Biden's $1.5T 2022 Budget," press release, April 9, 2021, at https://khanna.house.gov/media/press-releases/statement-khanna-criticizes-defense-spending-increase-biden-s-15t-2022-budget; and letter from some Members of Congress to President Joseph R. Biden, March 16, 2021, at https://pocan.house.gov/sites/pocan.house.gov/files/documents/Biden%20Defense%20Cuts%20Letter_Final.pdf.

[29] Explanatory statement accompanying the FY2022 NDAA in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7365.

(3.3%) more than the President's budget request and $38.2 billion (5.1%) more than the amount authorized in FY2021.[30] Adjusting for inflation, that amount was $24.3 billion (3.2%) more than FY2021 (in constant FY2022 dollars).[31]

CRS Products on National Security and Defense Strategy

For more information on the Interim National Security Strategic Guidance, see CRS In Focus IF11798, *The Interim National Security Strategic Guidance*. For background and analysis on potential national-security implications of COVID-19, see CRS Report R46336, *COVID-19: Potential Implications for International Security Environment—Overview of Issues and Further Reading for Congress*. For background and analysis on great power competition, see CRS Report R43838, *Renewed Great Power Competition: Implications for Defense—Issues for Congress*.

Budgetary Context[32]

Congressional consideration of the FY2022 NDAA occurred as federal spending was projected to continue to exceed revenues. This trend raised questions about whether pressure to reduce the federal deficit would affect defense budget plans.

In July 2021, the Congressional Budget Office (CBO) projected a federal deficit of $3.0 trillion for FY2021, or 13.4% of Gross Domestic Product (GDP).[33] That percentage was the second-highest since 1945.[34] CBO attributed the size of the projected deficit in part to "the economic disruption caused by the 2020-2021 coronavirus pandemic and the legislation enacted in response."[35] CBO projected that spending would continue to exceed revenues over the next decade (see **Figure 1**).[36] From FY2022 to FY2031, CBO projected that discretionary defense outlays would increase 23% and nondefense discretionary outlays 6%; while mandatory outlays would increase 40% and net interest payments on the national debt 198%.[37]

[30] Ibid., and conference report (H.Rept. 116-617) accompanying the National Defense Authorization Act for Fiscal Year 2021 (P.L. 116-283), p. 1939.

[31] Based on CRS adjustment of figures to constant FY2022 dollars using GDP (chained) price index in Office of Management and Budget (OMB), Historical Tables, Table 10.1, "Gross Domestic Product and Deflators Used in the Historical Tables: 1940-2026."

[32] This section was coordinated with Megan S. Lynch, Specialist on Congress and the Legislative Process.

[33] Congressional Budget Office (CBO), *Additional Information About the Updated Budget and Economic Outlook: 2021 to 2031*, July 2021, "At a Glance," p. 2 of the PDF.

[34] Ibid.

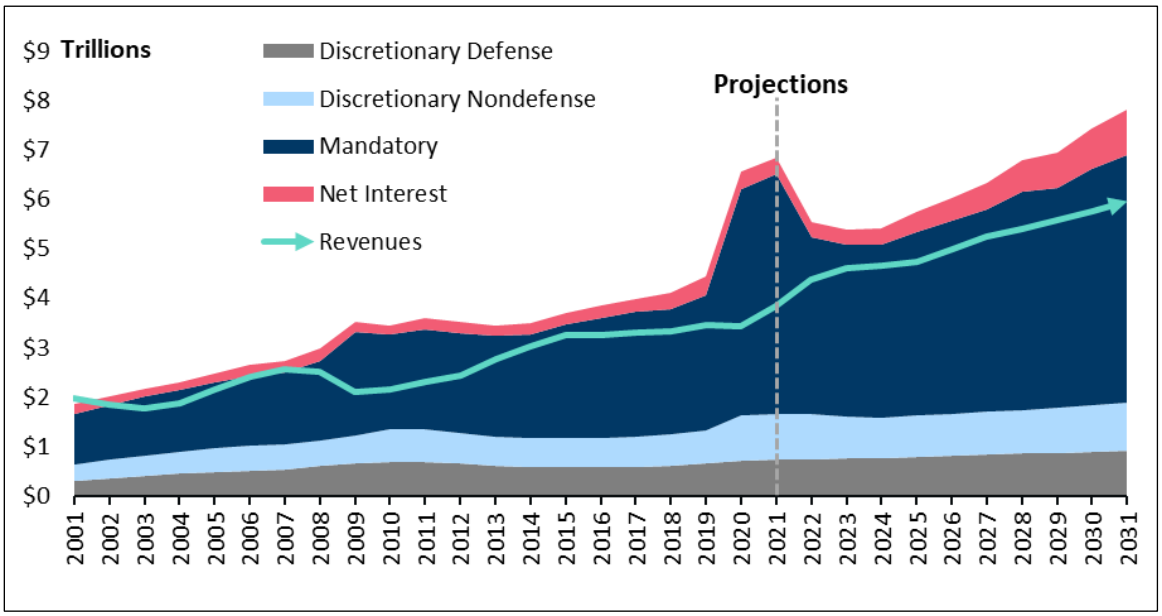
[35] Ibid.

[36] Ibid., pp. 6, 16; and CBO, Budget and Economic Data, 10-Year Budget Projections, July 2021, Table 1-1, "CBO's Baseline Budget Projections, by Category," and Table 1-4, "CBO's Baseline Projections of Discretionary Spending." Outlays refer to money spent by a federal agency from authority provided by Congress.

[37] Ibid.

Figure 1. Outlays by Budget Enforcement Category and Revenues, FY2001-FY2031 (Projected)

(in trillions of nominal dollars)



Source: CRS analysis of Government Publishing Office (GPO), *Budget of the U.S. Government Fiscal Year 2022*, Historical Tables, Table 1.4, "Receipts, Outlays, and Surpluses or Deficits (-) by Fund Group: 1934-2026," and Table 8.1, "Outlays by Budget Enforcement Act Category: 1962-2026," and Congressional Budget Office, Budget and Economic Data, 10-Year Budget Projections, July 2021, Table 1-1, "CBO's Baseline Budget Projections, by Category," and Table 1-4, "CBO's Baseline Projections of Discretionary Spending."

Note: 2001 through 2020 reflect OMB amounts; 2021 through 2031 reflect CBO projections.

In recent decades, during periods of widening gaps between revenues and outlays, Congress has sometimes enacted legislation intended to reduce the deficit in part by limiting federal spending, including defense spending.

After the deficit reached nearly 6% of GDP in 1983,[38] Congress enacted the Balanced Budget and Emergency Deficit Control Act of 1985 (also known as the Gramm-Rudman-Hollings Act; P.L. 99-177). This legislation created annual deficit limits and stated that breaching them would trigger automatic funding reductions equally divided between defense and non-defense spending.[39] In 1990, Congress passed the Budget Enforcement Act of 1990 (Title XIII of P.L. 101-508), which included statutory limits on discretionary spending. These limits were in effect through 2002 and, in certain years, included a specific limit on defense spending.[40]

After the deficit reached nearly 10% of GDP in 2009,[41] Congress enacted the Budget Control Act of 2011 (BCA; P.L. 112-25). The legislation reinstated statutory limits, or *caps*, on discretionary spending for FY2012-FY2021 and resulted in separate annual limits for defense spending.[42] The

[38] OMB, *Budget of the U.S. Government Fiscal Year 2022*, Historical Tables, Table 1.2, "Summary of Receipts, Outlays, and Surpluses or Deficits (-) as Percentages of GDP: 1930-2025."

[39] For background and analysis, see CRS Report R41901, *Statutory Budget Controls in Effect Between 1985 and 2002*.

[40] Ibid. Defense spending limits under P.L. 101-508 were in place in FY1991, FY1992, FY1993, FY1998 and FY1999.

[41] OMB, *Budget of the U.S. Government Fiscal Year 2022*, Historical Tables, Table 1.2, "Summary of Receipts, Outlays, and Surpluses or Deficits (-) as Percentages of GDP: 1930-2025."

[42] For spending limits in FY2012 and FY2013, the BCA originally specified separate "security" and "nonsecurity"

defense spending caps under BCA as amended applied to discretionary base budget authority for the national defense budget function (050).[43] The legislation effectively exempted certain other types of funding from the caps, including funding designated for emergency requirements and Overseas Contingency Operations/Global War on Terrorism (OCO/GWOT).[44] Under the BCA, discretionary spending limits were enforced through a mechanism called sequestration, which automatically cancels previously enacted appropriations by an amount necessary to reach pre-specified levels.[45] Over the past decade, Congress enacted appropriations within BCA discretionary spending limits except in FY2013, when President Barack Obama ordered the sequestration of budgetary resources across nonexempt federal government accounts.[46] BCA discretionary spending limits expired in FY2021.[47] As part of the FY2022 budget request, the Biden Administration proposed discontinuing funding for OCO and, instead, requested funding for contingency operations in the *base* budget.[48]

CRS Products on Discretionary Spending Caps

For background and analysis on the expiration of discretionary spending caps under the Budget Control Act, see CRS Report R46752, *Expiration of the Discretionary Spending Limits: Frequently Asked Questions*. For more information on the BCA, see CRS Video WVB00305, *Budget Control Act: Overview* and CRS Report R44039, *The Defense Budget and the Budget Control Act: Frequently Asked Questions*.

Some observers have argued statutory spending limits disproportionately affect defense programs and inadequately address projected growth in mandatory programs; others have argued they are necessary in light of recurring deficits and increasing federal debt.[49] In 2020, CBO identified options for reducing the federal budget deficit through budgetary savings in both mandatory and discretionary programs.[50] Twelve options involved reducing funding for discretionary defense programs (e.g., operation and maintenance, naval ship construction, aircraft).[51] In 2021, CBO

categories. For more information, see CRS Report R44039, *The Defense Budget and the Budget Control Act: Frequently Asked Questions*, by Brendan W. McGarry.

[43] The term base budget generally refers to funding for planned or regularly occurring costs to man, train, and equip the military force.

[44] Technically, the BCA allowed for an upward adjustment of the limits for certain types of discretionary funding. For more information, see CRS Report R44874, *The Budget Control Act: Frequently Asked Questions*, by Grant A. Driessen and Megan S. Lynch. Since 2009, the term Overseas Contingency Operations, or OCO, has been used to describe military operations in Iraq, Afghanistan, and other countries. For more information, see CRS Report R44519, *Overseas Contingency Operations Funding: Background and Status*, by Brendan W. McGarry and Emily M. Morgenstern.

[45] For background and analysis, see CRS Report R42972, *Sequestration as a Budget Enforcement Process: Frequently Asked Questions*, by Megan S. Lynch.

[46] Government Accountability Office (GAO), *SEQUESTRATION: Observations on the Department of Defense's Approach in Fiscal Year 2013*, GAO-14-177R, November 7, 2013, p. 13.

[47] For background and analysis, see CRS Report R46752, *Expiration of the Discretionary Spending Limits: Frequently Asked Questions*, by Megan S. Lynch and Grant A. Driessen. A relatively small share of the national defense budget is for mandatory programs. For more information, see the following section.

[48] OMB, *FY 2022 Discretionary Request*, p. 5.

[49] For background and analysis, see CRS Report R44039, *The Defense Budget and the Budget Control Act: Frequently Asked Questions*, by Brendan W. McGarry, p. 3.

[50] CBO, *Options for Reducing the Deficit: 2021 to 2030*, December 2020, at https://www.cbo.gov/system/files/2020-12/56783-budget-options.pdf.

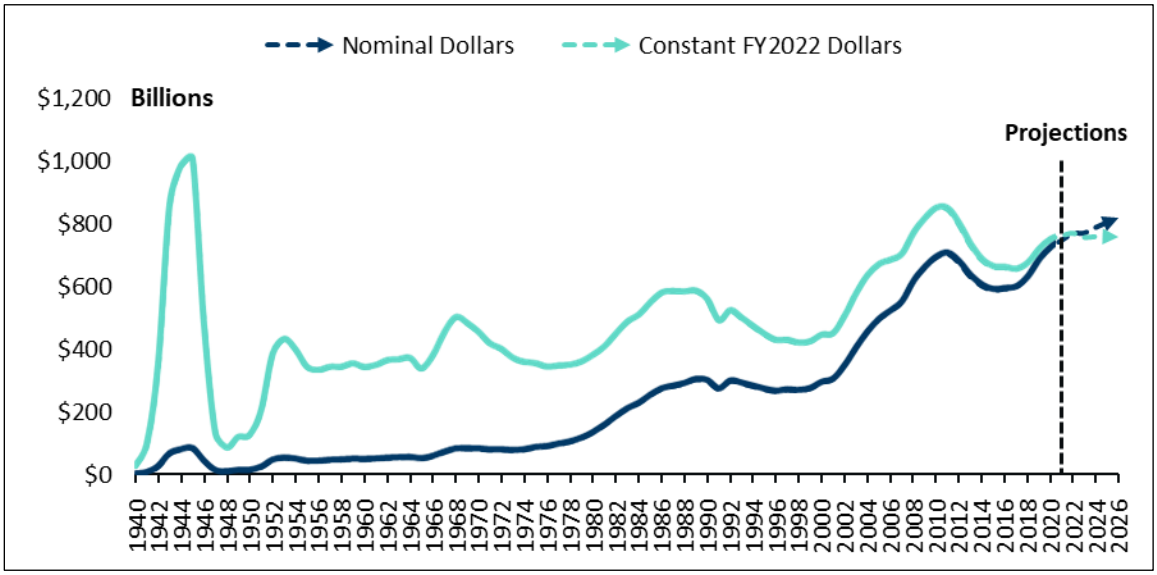
[51] Ibid.

published a report describing three options for carrying out national defense activities under a smaller defense budget based on differing military strategies.[52]

For historical context, **Figure 2** shows defense spending over time in both nominal and constant FY2022 dollars, based on CRS analysis of Office of Management and Budget (OMB) figures. The inflation-adjusted line shows the cyclical nature of defense spending during wartime. The level of defense outlays requested for national defense in FY2022, when adjusted for inflation, was higher than during the Cold War-era military buildup of the 1980s and lower than during the height of post-9/11 operations in Iraq and Afghanistan. OMB projected defense outlays to remain relatively flat through FY2026.[53]

Figure 2. National Defense Outlays, FY1940-FY2026 (projected)

(in billions of nominal and constant FY2022 dollars)



Source: CRS analysis of GPO, *Budget of the U.S. Government Fiscal Year 2022*, Historical Tables, Table 3.1 and Table 10.1.

Note: FY2021 through FY2026 reflect projections. Figures adjusted to constant FY2022 dollars using GDP (chained) price index in Table 10.1.

Figure 3 shows defense spending over time as a share of both federal outlays and GDP, based on OMB figures. Defense outlays steadily decreased from peaks of nearly 90% of federal outlays and more than a third of GDP in the 1940s during World War II—to a projected 12.8% of federal outlays and 3.3% of GDP in FY2022.[54]

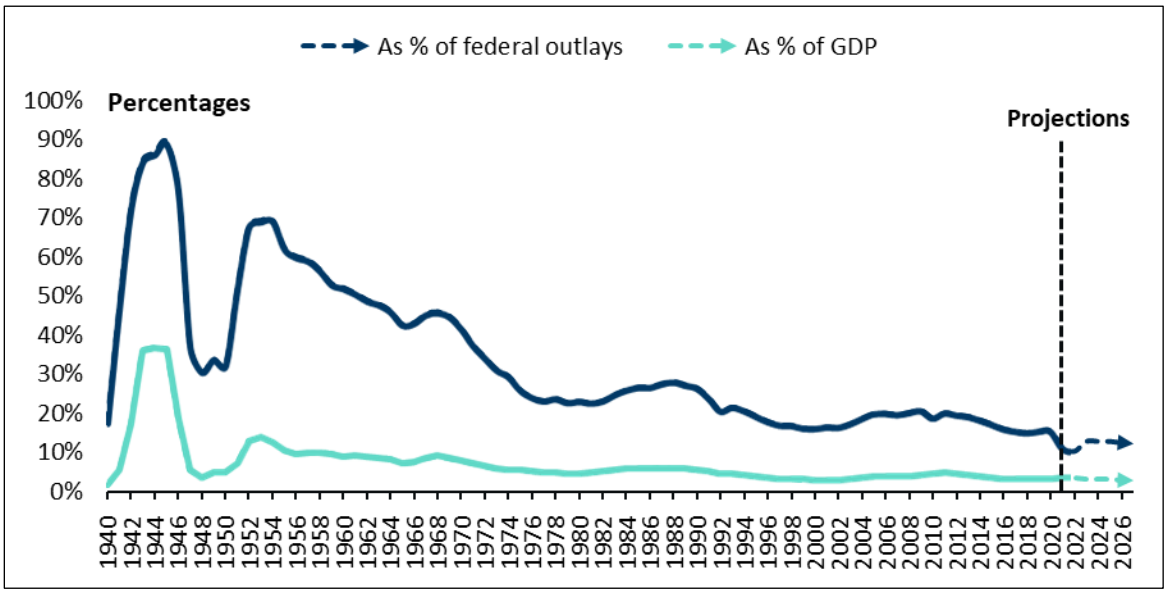
[52] CBO, *Illustrative Options for National Defense Under a Smaller Defense Budget*, October 2021, at https://www.cbo.gov/system/files/2021-10/57128-defense-cuts.pdf.

[53] CRS analysis of GPO, *Budget of the U.S. Government Fiscal Year 2022*, Historical Tables, Table 3.1, "Outlays by Superfunction and Function: 1940-2026," and Table 10.1, "Gross Domestic Product and Deflators Used in the Historical Tables: 1940-2026."

[54] CRS analysis of GPO, *Budget of the U.S. Government Fiscal Year 2022*, Historical Tables, Table 3.1, "Outlays by Superfunction and Function: 1940-2026."

Figure 3. National Defense Outlays as Share of Total Federal Outlays and GDP, FY1940-FY2026 (projected)

(in percentages)



Source: CRS analysis of GPO, *Budget of the U.S. Government Fiscal Year 2022*, Historical Tables, Table 3.1.

Note: FY2021 through FY2026 reflect projections.

For FY2022, Congress debated competing proposals regarding the overall size of the defense budget. In August 2021, the Senate and House adopted an FY2022 budget resolution (S.Con.Res. 14), which recommended $765.7 billion in new budget authority for FY2022 national defense programs and assumed "discretionary levels as proposed in the President's budget request."[55] In December 2021, Congress passed the FY2022 NDAA, with a total budget authority implication of $790.6 billion.[56]

President's Budget Request

The NDAA typically authorizes discretionary funding for nearly all DOD programs, national security programs of the Department of Energy, and certain other defense-related activities. While the NDAA does not appropriate funding (i.e., budget authority), the legislation establishes or continues defense programs, projects, or activities, and provides guidance on how appropriated funds are to be used in carrying out those efforts. (The statutory requirement for annual authorization of appropriations for defense programs is codified at 10 U.S.C. §114.)

The FY2022 President's budget requested more than $6 trillion in discretionary and mandatory funding, of which $768.3 billion (12.4%) was for activities within the national defense budget function.[57] The national defense budget request was $14.3 billion (1.9%) more than the FY2021

[55] S.Con.Res. 14, p. 4; and Senate Budget Committee, *Concurrent Resolution on the Budget Fiscal Year 2022*, S. Prt. 117-16, August 2021, p. 6.

[56] Explanatory statement accompanying the FY2022 NDAA (P.L. P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7365.

[57] CRS analysis of GPO, *Budget of the U.S. Government Fiscal Year 2022*, Analytical Perspectives, Table 20.1, "Policy Net Budget Authority by Function, Category, and Program."

level (excluding funds provided by the Emergency Security Supplemental Appropriations Act, 2021; P.L. 117-31).[58]

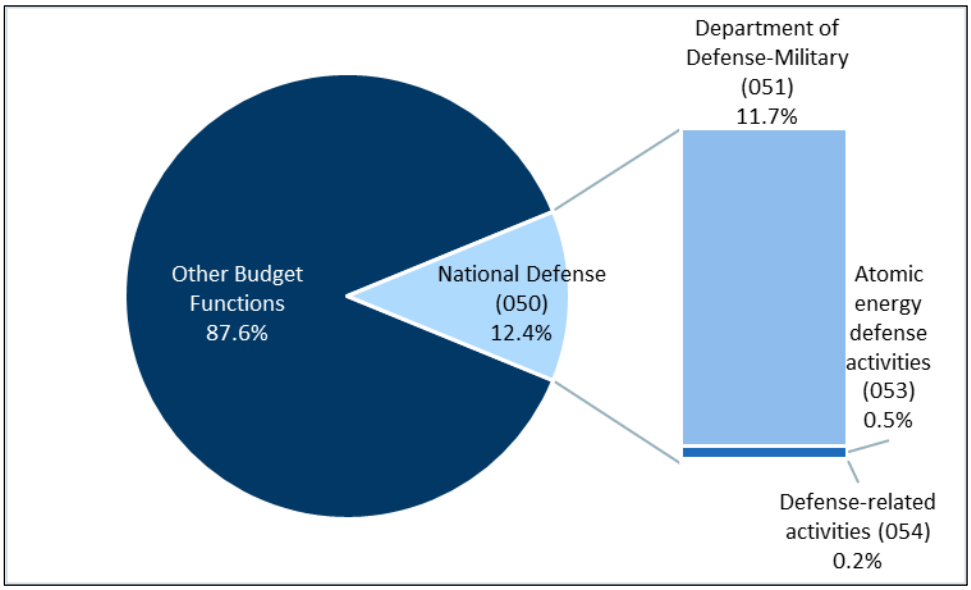
National defense is one of 20 major functions used by the OMB to organize budget data, and the largest in terms of discretionary funding.[59] Identified by the numerical notation 050, the national defense budget function is the broadest measure by which the U.S. government categorizes defense funding. The function comprises the following subfunctions:

- **DOD-Military (identified by the notation 051)**, which includes military and intelligence activities of the DOD;
- **Atomic energy defense activities (053)**, which includes nuclear weapons and reactor programs of the Department of Energy; and
- **Defense-related activities (054)**, which includes national security activities of several other agencies, such as Federal Bureau of Investigation counterintelligence activities.

Historically, DOD has accounted for the bulk—approximately 95%—of funding within the national defense budget function. For FY2022, the Biden Administration requested $727.9 billion for DOD-Military (11.7% of the federal budget); $29.9 billion for atomic energy defense activities (0.5%); and $10.5 billion for defense-related activities (0.2%) (see **Figure 4**).[60]

Figure 4. FY2022 Budget Request by National Defense Budget Function and Subfunctions

(in percentages of total budget authority)



Source: CRS analysis of GPO, Budget of the U.S. Government Fiscal Year 2022, Historical Tables, Table 5.1, "Budget Authority by Function and Subfunction: 1976-2026," at https://www.govinfo.gov/content/pkg/BUDGET-2022-TAB/xls/BUDGET-2022-TAB-6-1.xlsx.

[58] Ibid. P.L. 117-31 was signed into law after the release of the FY2022 President's budget request in May 2021.

[59] For more information on the national defense budget function, see CRS In Focus IF10618, *Defense Primer: The National Defense Budget Function (050)*.

[60] CRS analysis of GPO, *Budget of the U.S. Government Fiscal Year 2022*, Analytical Perspectives, Table 20.1, "Policy Net Budget Authority by Function, Category, and Program."

Note: Includes discretionary and mandatory funding; other budget functions include International Affairs (150); General Science, Space, and Technology (250); Energy (270); Natural Resources and Environment (300); Agriculture (350); Commerce and Housing Credit (370); Transportation (400); Community and Regional Development (450); Education, Training, Employment, and Social Services (500); Health (550); Medicare (570); Income Security (600); Social Security (650); Veterans Benefits and Services (700); Administration of Justice (750); General Government (800); Net Interest (900); Allowances (920); and Undistributed Offsetting Receipts (950).

The national defense budget request included $752.9 billion in discretionary funding and $15.4 billion for mandatory funding.[61] In general, funding for discretionary programs is provided in appropriations acts, while funding for mandatory programs (e.g., Social Security, Medicare, and Medicaid) is controlled by other laws.[62] For DOD, most discretionary programs are funded in major appropriation titles, such as operation and maintenance (O&M), military personnel (MILPERS), procurement, and research, development, test, and evaluation (RDT&E); while mandatory programs include, among other things, certain retirement benefits (e.g., *concurrent receipt* payments to the military retirement fund).[63]

The vast majority (approximately 97%) of funding in the national defense budget request falls within the scope of the NDAA. The legislation generally authorizes discretionary funding for almost all programs in the 051 and 053 subfunctions, and relatively few programs in the 054 subfunction. The 054 subfunction includes certain Department of Transportation (DOT) Maritime Administration (MARAD) activities (e.g., Maritime Security Program).[64]

The national defense budget request included $743.1 billion for discretionary programs within the scope of the NDAA.[65]

The House-passed NDAA would have authorized a total of $768.1 billion.[66] The SASC-reported version of the bill would have authorized a similar level, $767.7 billion, according to S.Rept. 117-39.[67] The enacted legislation authorized $768.2 billion—$25.1 billion (3.4%) more than the request (see **Table 1**), according to the accompanying explanatory statement.[68]

[61] CRS analysis of OMB, *Budget of the U.S. Government Fiscal Year 2022*, Analytical Perspectives, Table 20.1, "Policy Net Budget Authority by Function, Category, and Program."

[62] For more information, see CRS Report R46240, *Introduction to the Federal Budget Process*.

[63] Concurrent receipt in the military context typically means simultaneously receiving two types of federal monetary benefits: military retired pay from the Department of Defense and disability compensation from the Department of Veterans Affairs. After Congress authorized concurrent receipt in the early 2000s, DOD created additional accrual payments to finance retirement benefits. For more information on this topic, see CRS Report R40589, *Concurrent Receipt of Military Retired Pay and Veteran Disability: Background and Issues for Congress*.

[64] The HASC typically authorizes appropriations for the Maritime Security Program and Tanker Security Program of the Department of Transportation's Maritime Administration. The SASC typically does not authorize appropriations for these programs; however, the final version of the NDAA does.

[65] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7364.

[66] H.Rept. 117-118, p. 351.

[67] S.Rept. 117-39, p. 381.

[68] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7364.

Table 1. Discretionary Authorizations within the FY2022 NDAA

(in billions of dollars of budget authority)

Budget Function Name (Notation)	FY2022 Request	House-passed (H.R. 4350)	SASC-Reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized-Request)
Department of Defense-Military (051)	$714.77	$739.5	$740.0	$740.0	3.5%
Atomic Energy Defense Programs (053)	$27.94	$28.2	$27.7	$27.8	-0.3%
Defense-Related Activities (054)	$0.38	$0.4	$0.0	$0.4	0.0%
National Defense (050), Total	***$743.09***	***$768.1***	***$767.7***	***$768.2***	**3.4%**

Source: HASC report (H.Rept. 117-118; Part 1) accompanying H.R. 4350, p. 350; SASC report (S.Rept. 117-39) accompanying S. 2792, pp. 380-381; and explanatory statement accompanying the FY2022 NDAA (S. 1605; P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7364.

Note: For the defense-related activities budget subfunction (054), HASC typically authorizes appropriations for certain Department of Transportation (DOT) Maritime Administration (MARAD) activities (e.g., Maritime Security Program). While the Senate Armed Services Committee typically does not authorize appropriations for these activities, the final version of the NDAA does. Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts.

CRS Product on the FY2022 Defense Budget Request

For more information and analysis on the FY2022 defense budget request, see CRS Video WVB00391, *FY2022 Defense Budget Request*, by Kathleen J. McInnis et al.

Bill Overview

This section of the report provides an overview of legislative activity on the FY2022 NDAA, including certain congressional actions with respect to the House-passed, SASC-reported, and enacted versions of the bill.

Legislative Activity[69]

By law, the President is to send the federal budget request to Congress by the first Monday in February.[70] In practice, the President sometimes sends it later, particularly during presidential transition years.[71] On May 28, 2021, President Biden submitted the FY2022 budget request.[72] Representative Adam Smith, Chair of the HASC, had said that a budget submitted on May 10 or

[69] This section was coordinated with Valerie Heitshusen, Specialist on Congress and the Legislative Process.

[70] 31 U.S.C. §1105(a).

[71] According to the Government Publishing Office (GPO), the FY2018 budget was submitted on May 23, 2017; the FY2010 budget on February 26, 2009; and the FY2002 budget on April 9, 2001. For more information, see GPO, Budget of the United States Government, at https://www.govinfo.gov/app/collection/budget. See also CRS Report RS20752, *Submission of the President's Budget in Transition Years*, by Taylor N. Riccard.

[72] OMB, *Budget of the United States Government, Fiscal Year 2022*, May 28, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/05/budget_fy22.pdf.

later could affect the timing for completion of the annual NDAA by the October 1 start of the government's fiscal year (FY).[73]

On July 28-29, the seven HASC subcommittees considered and reported draft legislative proposals (known as marks) to the full committee with recommendations for matters in the FY2022 NDAA under their jurisdiction.[74] On August 25, Chairman Smith released each subcommittee's proposal in preparation of the full committee markup.[75] On September 1, HASC began considering and marking up the legislation.[76] On September 2, the committee voted 57-2 to order H.R. 4350 reported to the House with an amendment in the nature of a substitute reflecting the work product of the two-day markup.[77] On September 10, the committee filed its report, H.Rept. 117-118, to accompany the legislation. (On September 17, the committee filed a supplemental report that included the Congressional Budget Office's cost estimate for the bill, among other information.[78]) On September 21-23, the House debated and considered amendments to H.R. 4350 and, on September 23, passed the measure by a vote of 316-113.[79]

Meanwhile, in the Senate, on July 19-20, the seven subcommittees of the SASC marked up draft legislative proposals with recommendations for matters in the FY2022 NDAA under their jurisdiction.[80] Two of the markups were held in open sessions (Subcommittee on Readiness and Management Support, and Subcommittee on Personnel), five were closed.[81] On July 21, SASC considered the legislation in a closed session and voted 23-3 to order reported an original bill reflecting changes agreed to in markup.[82] On September 22, SASC reported S. 2792 and filed the accompanying report S.Rept. 117-39. The Senate did not vote on final passage of S. 2792. On November 19, Senator Jack Reed, Chair of SASC, offered on the floor an amendment in the nature of a substitute (S.Amdt. 3867) to H.R. 4350 to replace the text of the House-passed

[73] Representative Adam Smith, transcript of remarks during American Enterprise Institute webinar hosted by Mackenzie Eaglen, *A conversation with House Armed Services Committee Chairman Adam Smith: Priorities for the fiscal year 2022 defense budget*, April 22, 2021, p. 3, at https://www.aei.org/wp-content/uploads/2021/03/210422-House-Armed-Services-Committee-Chairman-Adam-Smith-Transcript.pdf?x91208.

[74] HASC, Hearings website, accessed September 30, 2021, at https://armedservices.house.gov/hearings. The seven HASC subcommittees are Tactical Air and Land Forces; Military Personnel; Readiness; Seapower and Projection Forces; Strategic Forces; Intelligence and Special Operations; and Cyber, Innovative Technologies, and Information Systems. Jurisdiction and membership of HASC and its subcommittees can be found at https://armedservices.house.gov/committee-rules#0D456DEB-8D11-4DF4-A8E3-D4D778DFDA61.

[75] HASC, "HASC Subcommittee Marks as Reported for H.R. 4350 National Defense Authorization Act for Fiscal Year 2022," August 25, 2021, at https://armedservices.house.gov/press-releases?ID=B0078ABA-C9D1-4E33-99B5-AACDC534106A.

[76] Representative Adam Smith, in hearing transcript, "House Armed Services Committee Holds Markup on Fiscal 2022 National Defense Authorization Act, Part One," *CQ*, September 1, 2021, at https://plus.cq.com/doc/congressionaltranscripts-6333701?3.

[77] HASC, "Chairman Smith on the Committee's Passage of the FY22 NDAA," press release, September 2, 2021, at https://armedservices.house.gov/press-releases?ID=6E91A3BE-195E-4E51-82F7-FB897BC73CE5.

[78] See H.Rept. 117-118, Part 2.

[79] See House debate, *Congressional Record*, vol. 167, part 163 (September 21, 2021), pp. H4564-H4576, H4596-H4861; vol. 167, part 164 (September 22, 2021), pp. H4880- H5078); and vol. 167, part 165 (September 23, 2021), pp. H5103-H5104, H5115-H5128.

[80] SASC, "Reed and Inhofe Announce FY 2022 NDAA Markup Schedule," press release, July 8, 2021, at https://www.armed-services.senate.gov/press-releases/reed-inhofe-announce-fy-2022-ndaa-markup-schedule.

[81] Ibid., and SASC, "SASC Completes Markup of Fiscal Year 2022 National Defense Authorization Act," press release, July 22, 2021, at https://www.armed-services.senate.gov/press-releases/-sasc-completes-markup-of-fiscal-year-2022-national-defense-authorization-act.

[82] Ibid.

legislation with a modified version of the SASC-reported bill. The Senate did not agree to end debate on the amendment (S.Amdt. 3867), as modified; cloture was not invoked by a vote of 45-51. While the Senate did not pass S.Amdt. 3867, it became one basis of House-Senate negotiations.

Unlike in most years, the House and Senate did not establish a conference committee to resolve differences between the two versions of the bill. Instead, HASC and SASC leaders negotiated a bicameral agreement based on the two versions. On December 7, the committees released the text of the agreement, which was filed as a House amendment to an unrelated Senate-passed bill, S. 1605.[83] The same day, an explanatory statement to accompany the House amendment to S. 1605 was published in Part 2 of the House section of the *Congressional Record*.[84] The final text of the NDAA made clear that this statement was to be treated as if it were the formal bicameral statement issued by a conference committee. Also that day, the House agreed to S. 1605, as amended, by a vote of 363-70. On December 15, the Senate agreed to the House amendment to S. 1605 by a vote of 88-11. On December 27, President Biden signed the legislation into law (P.L. 117-81).

Table 2 shows the status of legislative activity on the FY2022 NDAA.

Table 2. FY2022 NDAA: Status of Legislative Activity

House				Senate				Public Law
Bill #, Date Reported	**Report #, Date**	**Vote # (yeas, nays), Date Passed**	**HASC-SASC Negotiated Proposal**	**Bill #, Date Reported**	**Report #, Date**	**Vote # (yeas, nays), Date Passed**	**HASC-SASC Negotiated Proposal**	**P.L. #, Date Signed**
H.R. 4350, 09/10/21	H.Rept. 117-118, 09/10/21	293 (316-113), 09/23/21						
				S. 2792, 09/22/21	S.Rept. 117-39, 09/22/21			
House amendment to S. 1605, 12/07/21		405 (363-70), 12/07/21	Explanatory statement published in *Congressional Record*.[a]	House amendment to S. 1605, 12/07/21		499 (88-11), 12/15/21	Explanatory statement published in *Congressional Record*.[a]	P.L. 117-81, 12/27/21

Source: CRS analysis of selected actions in Congress.gov.

Note:

a. On December 7, 2021, the explanatory statement to accompany S. 1605 was published in Part 2 of the House section of the *Congressional Record*.

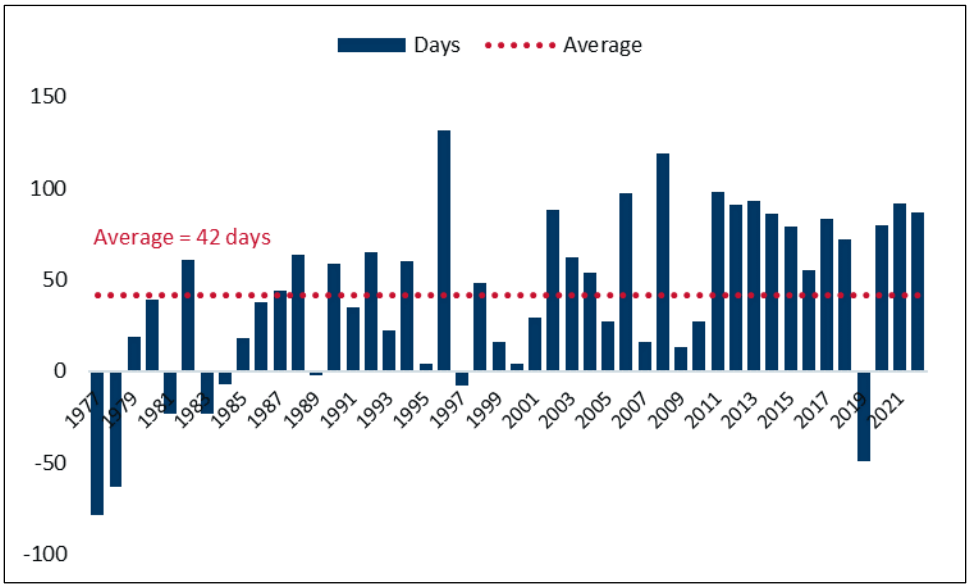
[83] See HASC, "HASC, SASC Release Text of FY22 NDAA Agreement," press release, December 7, 2021, at https://armedservices.house.gov/press-releases?ID=8F7F4622-D0E7-46A2-99CA-65F04EE652CD; and SASC, "SASC, HASC Release Text of FY22 NDAA Agreement," press release, December 7, 2021, at https://www.armed-services.senate.gov/press-releases/sasc-hasc-release-text-of-fy22-ndaa-agreement.

[84] *Congressional Record*, vol. 167, no. 211—Book II (December 7, 2021), pp. H7265-H7464, at https://www.congress.gov/117/crec/2021/12/07/167/211/CREC-2021-12-07-bk2.pdf.

Figure 5 shows the number of days between the start of the fiscal year and enactment of the annual defense authorization act since FY1977, when the federal government transitioned to a fiscal year beginning October 1, 1976.

Figure 5. Days between Start of Fiscal Year and Enactment of Annual Defense Authorization Acts, FY1977-FY2022

(in days)



Source: CRS analysis of dates of enactment of public law from CRS Report 98-756, *Defense Authorization and Appropriations Bills: FY1961-FY2021*, by Barbara Salazar Torreon and Sofia Plagakis; and P.L. 117-81.

Note: Negative values indicate number of days between enactment of annual defense authorization acts and start of fiscal year. Annual defense authorization legislation for the fiscal years 1979, 1989, 1996, 2008, 2016, and 2021 was enacted over a presidential veto.

Summary of Discretionary Authorizations

Of the $768.3 billion requested in the FY2022 President's budget for national defense programs,[85] $743.1 billion was for discretionary programs falling within the scope of the FY2022 NDAA.[86] The remainder of the national defense budget request was for discretionary programs that were not within the jurisdiction of the HASC or SASC, discretionary programs that did not require additional authorization, or mandatory programs that were previously authorized.[87]

The House-passed version of the bill (H.R. 4350) would have authorized a total of $768.1 billion for discretionary programs—$25 billion (3.4%) more than the President's request, according to H.Rept. 117-118.[88] During the HASC markup of its version of the bill, Representative Mike Rogers, ranking minority member of the committee, offered an amendment to increase authorized

[85] GPO, *Budget of the U.S. Government Fiscal Year 2022*, Analytical Perspectives, Table 20.1, "Policy Net Budget Authority by Function, Category, and Program."

[86] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in *Congressional Record*, vol. 167, no. 211—Book II (December 7, 2021), p. H7364 (link embedded in page number).

[87] Ibid.

[88] Ibid.

appropriations by $23.9 billion. He said the increase would "ensure defense spending grows by 3% above inflation, meeting the recommendations of the bipartisan National Defense Strategy Commission."[89] Rogers also said the increase would support the unfunded priorities of the armed services and combatant commands, as well as provide the resources necessary to counter the growing threat from China and other adversaries.[90] The committee voted to adopt the amendment, 42-17.[91] Among those on the committee who voted against the amendment was, for example, Chair Adam Smith, who said a smaller funding increase would encourage DOD to spend money more wisely, improve acquisition and procurement practices, and better anticipate threats: "If we give them another $23.9 billion, it takes the pressure off. It makes it easier for them to just keep doing what they've been doing."[92]

In response to the House-passed legislation, the White House stated it planned to work with Congress "to set an appropriate and responsible level of defense spending to support the security of the nation" while also providing "appropriate resources for non-security investments and security investments outside the Department of Defense (DOD)."[93] The White House argued in part, "The Administration opposes the direction to add funding for platforms and systems that cannot be affordably modernized given the need to prioritize survivable, lethal, and resilient forces in the current threat environment and eliminate wasteful spending."[94]

The SASC-reported version of the bill (S. 2792) would have authorized a similar level for discretionary programs, $767.7 billion, according to S.Rept. 117-39. In announcing the SASC's completion of marking up its version of the bill, Senator James Inhofe, ranking minority member of the committee, said, "this year's bipartisan National Defense Authorization Act increases the defense topline to the National Defense Strategy Commission's recommendation of 3% to 5% real growth. This is a big win for our national security and sends a strong message to both our allies and adversaries that America is prepared to stand up for ourselves and our friends."[95] Among the senators who opposed the committee reporting the legislation to the Senate was, for example, Senator Elizabeth Warren.[96] In speaking on the Senate floor in opposition to the legislation, she argued, in part, "America's spending priorities are completely misaligned with the threats Americans are actually facing, the things are quite literally endangering their lives—like COVID-19 and the climate crisis."[97]

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[89] Representative Mike Rogers, as quoted in "House Armed Services Committee Holds Markup on Fiscal 2022 National Defense Authorization Act, Part Two," *Congressional Quarterly*, September 1, 2021, at https://plus.cq.com/doc/congressionaltranscripts-6332853?5. For more information on DOD unfunded priorities, see CRS In Focus IF11964, *Defense Primer: Department of Defense Unfunded Priorities*.

[90] Ibid.

[91] H.Rept. 117-118, p. 552.

[92] Representative Adam Smith, as quoted in "House Armed Services Committee Holds Markup on Fiscal 2022 National Defense Authorization Act, Part Two," *Congressional Quarterly*, September 1, 2021, at https://plus.cq.com/doc/congressionaltranscripts-6332853?5.

[93] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[94] Ibid.

[95] SASC, "SASC Completes Markup of Fiscal Year 2022 National Defense Authorization Act," press release, July 22, 2021, at https://www.armed-services.senate.gov/press-releases/-sasc-completes-markup-of-fiscal-year-2022-national-defense-authorization-act.

[96] S.Rept. 117-39, p. 555.

[97] Senator Elizabeth Warren, "Warren Delivers Floor Speech in Opposition to the National Defense Authorization Act," November 18, 2021, at https://www.warren.senate.gov/newsroom/press-releases/warren-delivers-floor-speech-in-opposition-to-the-national-defense-authorization-act.

The enacted legislation (S. 1605; P.L. 117-81) authorized $768.2 billion for discretionary programs—$25.1 billion (3.4%) more than the request, according to the accompanying explanatory statement.[98] In terms of major titles in the bill, more than half of the overall increase was authorized for procurement programs (see **Table 3**).

Table 3. Summary of Discretionary Authorizations in FY2022 NDAA

(in billions of dollars, in order of appearance in act)

Title	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized-Request)
Procurement	$132.21	$147.06	$144.05	$146.88	11.1%
Research and Development	$111.96	$118.07	$116.11	$117.73	5.1%
Operation and Maintenance	$253.62	$253.03	$260.41	$255.40	0.7%
Military Personnel	$167.29	$166.86	$166.79	$166.90	-0.2%
Defense Health Program and Other DOD	$39.85	$41.07	$39.88	$39.72	-0.3%
Military Construction and Family Housing	$9.85	$13.42	$12.71	$13.35	35.5%
Subtotal, Department of Defense-Military (051)	***$714.77***	***$739.52***	***$739.95***	***$739.99***	***3.5%***
Atomic Energy Defense Programs (053)	***$27.94***	***$28.21***	***$27.75***	***$27.84***	***-0.3%***
Defense-Related Activities (054)	***$0.38***	***$0.38***	***$0.00***	***$0.38***	***0.0%***
Total	**$743.09**	**$768.11**	**$767.70**	**$768.21**	**3.4%**

Source: HASC report (H.Rept. 117-118; Part 1) accompanying its version of the FY2022 NDAA (H.R. 4350), pp. 346-349; SASC report (S.Rept. 117-39) accompanying its version of the FY2022 NDAA (S. 2792), pp. 378-381; and explanatory statement accompanying the FY2022 NDAA (S. 1605) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7362-H7364.

Note: Totals may not sum due to rounding. Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts.

Table 4 shows the percentage change between authorized and requested funding in the NDAA over the past decade.

[98] Explanatory statement accompanying P.L. 117-81 in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7364.

Table 4. Requested and Authorized Funding in the National Defense Authorization Act, FY2013-FY2021

(in billions of nominal dollars of budget authority)

Fiscal Year	Public Law (P.L.)	Request	Authorized	% Change (Authorized-Request)
2013	P.L. 112-239	$631.60[a]	$633.34[a]	0.3%
2014	P.L. 113-66	$625.15[b]	$625.14[b]	0.0%
2015	P.L. 113-291	$577.15[c]	$577.15[c]	0.0%
2016	P.L. 114-92	$604.21[d]	$599.21[d]	-0.8%
2017	P.L. 114-328	$607.98[e]	$611.17[e]	0.5%
2018	P.L. 115-91	$665.72[f]	$692.10[f]	4.0%
2019	P.L. 115-232	$708.11[g]	$708.10[g]	0.0%
2020	P.L. 116-92	$741.93[h]	$729.93[h]	-1.6%
2021	P.L. 116-283	$731.61[i]	$731.61[i]	0.0%
2022	P.L. 117-81	$743.09[j]	$768.21[j]	3.4%

Source: CRS analysis of funding tables in conference reports or explanatory statements accompanying National Defense Authorization Acts. Amounts include funding for Department of Defense-Military, atomic energy defense programs, defense-related activities and, from FY2013 to FY2021, funding designated for Overseas Contingency Operations (OCO).

Note: Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts. Links to reports or explanatory statements are embedded in the page numbers below:

a. Conference report (H.Rept. 112-705) to accompany the National Defense Authorization Act for Fiscal Year 2013 (P.L. 112-239), p. 687.

b. Explanatory statement to accompany the National Defense Authorization Act for Fiscal Year 2014 (P.L. 113-66) in Committee Print No. 2, December 2013, p. 780;

c. Explanatory statement to accompany the National Defense Authorization Act for Fiscal Year 2015 (P.L. 113-291) in Committee Print No. 4, December 2014, p. 994;

d. Explanatory statement to accompany the National Defense Authorization Act for Fiscal Year 2016 (P.L. 114-92) in Committee Print No. 2, November 2015, p. 887;

e. Conference report (H.Rept. 114-840) to accompany the National Defense Authorization Act for Fiscal Year 2017 (P.L. 114-328), p. 1332;

f. Conference report (H.Rept. 115-404) to accompany the National Defense Authorization Act for Fiscal Year 2018 (P.L. 115-91), p. 1111;

g. Conference report (H.Rept. 115-863) to accompany the National Defense Authorization Act for Fiscal Year 2019 (P.L. 115-232), p. 1143.

h. Conference report (H.Rept. 116-333) to accompany the National Defense Authorization Act for Fiscal Year 2020 (P.L. 116-92), p. 1545;

i. Conference report (H.Rept. 116-617) to accompany the National Defense Authorization Act for Fiscal Year FY2021 (P.L. 116-283), p. 1938;

j. Explanatory statement to accompany the National Defense Authorization Act for Fiscal Year 2022 (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7364.

Selected Policy Matters

This section of the report discusses various policy matters in the FY2022 NDAA, including those that were the subject of debate between the House and Senate, or Congress and the Administration; received a high level of media or constituent interest; or were impacted by global events.

Overseas Contingency Operations (OCO) Funding and Related Matters

Following the September 11, 2001, terrorist attacks, Congress provided funding designated for emergency requirements and later for Overseas Contingency Operations/Global War on Terrorism (OCO/GWOT) to support U.S. military operations in Afghanistan, Iraq, Syria, and other countries, in addition to other activities.[99] When statutory spending limits were enacted as part of the Budget Control Act of 2011 (BCA; P.L. 112-25),[100] the law established an OCO/GWOT funding exemption from the limits.[101] Some observers argued OCO funding allowed for flexible response to contingencies, and provided a "safety valve" to the spending caps.[102] Others described OCO as a loophole—evolving from an account for replacing combat losses of equipment, resupplying expended munitions, and transporting troops through war zones, to a "slush fund" for activities unrelated to contingency operations (e.g., planned or regularly occurring costs to staff, train, and equip the military force typically requested in the base budget of the Department of Defense).[103] The BCA discretionary spending limits expired in FY2021.[104]

The FY2022 President's budget request was the first in a decade not subject to the BCA caps. The budget proposed discontinuing "requests for Overseas Contingency Operations as a separate funding category, instead funding direct war costs and enduring operations in the DOD base budget."[105] DOD budget documentation released in May 2021 requested $42.1 billion for activities described as "contingency operations" (without the budgetary designation), including funding for the planned drawdown of U.S. armed forces in Afghanistan and other military activities abroad, as well as activities in the continental United States.[106] Of that amount, $14.3 billion was for direct war requirements (i.e., combat or combat support costs that were not expected to continue after combat operations end at major contingency locations), including $8.9

[99] For background and analysis, see CRS Report R44519, *Overseas Contingency Operations Funding: Background and Status*, by Brendan W. McGarry and Emily M. Morgenstern.

[100] For background and analysis, see CRS Report R44874, *The Budget Control Act: Frequently Asked Questions*.

[101] Technically, the BCA allowed for an upward adjustment of the limits for certain types of discretionary funding. For background and analysis, see CRS Report R45778, *Exceptions to the Budget Control Act's Discretionary Spending Limits*.

[102] See, for example, Mark Cancian, "Two Cheers for OCO: Grease For Budget Wheels," *Breaking Defense*, October 20, 2016, at https://breakingdefense.com/2016/10/two-cheers-for-oco-grease-for-budget-wheels/.

[103] See, for example, Todd Harrison, "The Enduring Dilemma of Overseas Contingency Operations Funding," *Center for Strategic and International Studies*, January 11, 2017, at https://defense360.csis.org/enduring-dilemma-oco-funding/#1; and Sean Kennedy, "End the Pentagon's OCO slush fund," *Defense News*, October 14, 2020, at https://www.defensenews.com/opinion/commentary/2020/10/14/end-the-pentagons-oco-slush-fund/.

[104] For background and analysis, see CRS Report R46752, *Expiration of the Discretionary Spending Limits: Frequently Asked Questions*.

[105] OMB, "FY2022 Discretionary Request," press release, April 2021, p. 5.

[106] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. 7-3.

billion for Operation Freedom's Sentinel (OFS) in Afghanistan and $5.4 billion for Operation Inherent Resolve (OIR) in Iraq and Syria.[107] The remainder of contingency operations funding, $27.8 billion, was requested for *enduring requirements* (i.e., costs for activities in theater and the continental United States that were expected to remain after combat operations end).[108]

The House-passed version of the NDAA and the Senate Armed Services Committee (SASC)-reported version of the bill would have not authorized OCO funding. While neither version included OCO funding, language in the legislation and accompanying documentation called for continued transparency and DOD accountability in war spending.

Section 1065G of the House bill would have required the Secretary of Defense to submit to Congress a report "on the obligation and expenditure of funds that were authorized to be appropriated for overseas contingency operations for fiscal year 2010 and fiscal year 2019."[109] The SASC bill and the enacted legislation did not include the House provision. The explanatory statement accompanying the enacted legislation noted that "transparency in expenditures for overseas contingency operations is critical to congressional oversight of the Department of Defense and effective budgeting for military operations."[110] The statement directed the DOD Comptroller to continue to provide Congress with quarterly Cost of War Execution Reports consistent with the reporting requirement in Section 1221(c) of the National Defense Authorization Act for Fiscal Year 2006 (P.L. 109-163; 10 U.S.C. §113 note), as amended.[111]

The report accompanying the SASC bill included a provision on DOD budget documentation for overseas contingency operations.[112] The provision stated the exclusion of OCO funding from certain documentation did "not provide the Congress and the public with the appropriate level of detail and transparency regarding war-related costs."[113] The SASC encouraged the DOD Comptroller "to provide separate budget exhibits for direct war-related costs and for enduring war-related costs" in preparing the FY2023 budget request.[114]

The enacted legislation did not detail funding for contingency operations in separate tables. **Table 5** lists requested and authorized amounts for selected DOD overseas activities previously resourced with OCO funding (partially or fully).

Table 5. Authorizations for Selected DOD Overseas Activities in FY2022 NDAA

(in billions of dollars)

Activity (*relevant CRS product*)	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)
Afghanistan Security Forces Fund (ASFF; *R46879, R46955*)	$3.33[a]	$0.33[b]	$3.33[c]	$0.00[d]

[107] Ibid., p. 7-4.

[108] Ibid., p. 7-3.

[109] H.R. 4350, pp. 1067-1068.

[110] Explanatory statement to accompany the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7322.

[111] Ibid.

[112] S.Rept. 117-39, p. 239.

[113] Ibid.

[114] Ibid.

Activity (*relevant CRS product*)	**FY2022 Request**	**House-passed** (H.R. 4350)	**SASC-reported (S. 2792)**	**Authorized (P.L. 117-81)**
Counter-ISIS Train and Equip Fund (CTEF; *IF10328, IF11677*)	$0.52[e]	$0.52[b]	$0.52[c]	$0.52[d]
Ukraine Security Assistance Initiative (USAI; *R45008, IF10946*)	$0.25[f]	$0.30[g]	$0.30[h]	$0.30[d]
European Deterrence Initiative (EDI, including USAI; *IF10946*)	$3.68[f]	n/a[i]	n/a[j]	n/a[k]
Pacific Deterrence Initiative (PDI; *IF11719*, *IF10607*)	$5.09[l]	n/a[m]	n/a[n]	$7.11[o]

Source: CRS analysis of FY2022 DOD budget documentation; legislation and reports on Congress.gov, including H.Rept. 117-118; Part 1 accompanying H.R. 4350; S.Rept. 117-39 accompanying S. 2792; explanatory statement accompanying P.L. 117-81 in Part 2 of the House section of the *Congressional Record*, December 7, 2021; HASC and SASC executive summaries of the legislation.

Note: Dollars rounded to nearest hundredth. Links to source documents are embedded in the page numbers below:

a. DOD, *Office of the Secretary of Defense, Department of Defense Budget, Fiscal Year (FY) 2022, May 2021, Justification for FY 2022 Afghanistan Security Forces Fund*, p. 5.

b. H.Rept. 117-118, p. 346.

c. S.Rept. 117-39, p. 378.

d. Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

e. DOD, *Office of the Secretary of Defense, Department of Defense Budget, Fiscal Year (FY) 2022, May 2021, Justification for FY 2022 Counter-Islamic State of Iraq and Syria (ISIS) Train and Equip Fund (CTEF)*, p. 3.

f. DOD, *European Deterrence Initiative, Department of Defense Budget, Fiscal Year (FY) 2022, Office of the Under Secretary of Defense (Comptroller), June 2021*, p. 2.

g. H.Rept. 117-118, p. 347.

h. S.Rept. 117-39, p. 250.

i. H.R. 4350 and H.Rept. 117-118 did not identify a total for EDI; HASC, "Summary of the National Defense Authorization Act for Fiscal Year 2022," September 11, 2021, p. 11, stated the legislation "fully funds" EDI.

j. S. 2792, S.Rept. 117-39, and SASC, "FY22 NDAA Executive Summary," July 22, 2021, did not identify a total for EDI.

k. P.L. 117-81 and the accompanying explanatory statement did not identify a total for EDI. HASC, "Final Text Summary of the FY22 NDAA," December 7, 2021, p. 9, stated the legislation "includes a total $4 billion for the European Deterrence Initiative (EDI) and additional investments for EDI purposes."

l. DOD, *Pacific Deterrence Initiative, Department of Defense Budget Fiscal Year (FY) 2022, Office of the Under Secretary of Defense (Comptroller), May 2021*, p. 15.

m. HASC, "Summary of the National Defense Authorization Act for Fiscal Year 2022," September 11, 2021, p. 12, stated the legislation would have provided "at least" $8.8 billion for PDI.

n. S. 2792, S.Rept. 117-39, and SASC, "FY22 NDAA Executive Summary," July 22, 2021, did not identify a total for PDI; S. 2792 would have authorized "such sums as may be necessary" for PDI.

o. Explanatory statement to accompany the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7328-H7330.

CRS Products on Overseas Contingency Operations Funding

For background and analysis on funding for Overseas Contingency Operations, see CRS Report R44519, *Overseas Contingency Operations Funding: Background and Status* and CRS In Focus IF10143, *Foreign Affairs Overseas Contingency Operations (OCO) Funding: Background and Current Status*.

Afghanistan Security Forces Fund (ASFF)

In considering the FY2022 NDAA and other legislation, Congress expressed significant interest in how developments in Afghanistan—including the collapse of the U.S.-backed Afghan government and its security forces and the withdrawal of U.S. military personnel from the country in August 2021—would change plans for the use of Afghanistan Security Forces Fund (ASFF) amounts appropriated for FY2021 and prior years, and requested for FY2022.

In a May 2021 justification of its FY2022 budget request for the ASFF, DOD stated, given the planned withdrawal of U.S. forces from Afghanistan, the $3.3 billion requested for ASFF was "even more important than previously to maintain the viability of the Afghan forces and strengthening the Afghan government leverage in negotiations to end the war on terms that preserve a democratic form of government."[115]

The SASC bill, marked up in July, would have authorized the requested amount of funding ($3.33 billion) for ASFF and limited the use of some funds until the Secretary of Defense provided a report to congressional committees on aspects of the assistance and certified that the Afghan government was meeting certain measures of progress.[116]

The House bill, passed in September, would have authorized a total of $325 million for ASFF for "contract close-out and other close-out operations."[117]

In response to the SASC-reported and House-passed legislation, the White House stated, in part, that the termination of the ASFF "will involve, at a minimum, closing out several hundred contracts and in many cases negotiating financial settlements with the contractors, developing a full accounting for all ASFF-funded equipment and supplies that are outside Afghanistan, and assessing potential contract settlement costs and the cost of transporting and storing ASFF-funded materiel for purposes of treating it as DOD stocks."[118]

The enacted legislation did not authorize funding for ASFF.[119] The accompanying explanatory statement noted "there are sufficient funds from the previous fiscal year that will remain available for the termination of Operation Freedom's Sentinel and related support to the security forces of the Government of Afghanistan."[120] The statement directed the Secretary of Defense to provide a report to the congressional defense committees on the status of ASFF funds, contracts, and

[115] DOD, *Office of the Secretary of Defense, Department of Defense Budget Fiscal Year (FY) 2022, May 2021, Justification for the FY 2022 Afghanistan Security Forces Fund (ASFF)*, p. 7.

[116] S.Rept. 117-39, pp. 248, 485.

[117] H.R. 4350, p. 1265.

[118] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf; and White House, "Statement of Administration Policy, S. 2792 – National Defense Authorization Act for Fiscal Year 2022," November 17, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/11/S-2797-SAP.pdf.

[119] Explanatory statement to accompany the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[120] Ibid., p. H7338.

equipment.[121] Section 1092 of the enacted legislation required the Under Secretary of Defense for Policy to provide quarterly briefings to the congressional defense committees on the security situation in Afghanistan and DOD's efforts to counter terrorist groups in the country, among other information.[122] Section 1094 of the legislation, cited as the Afghanistan War Commission Act of 2021, established the Afghanistan War Commission to study U.S. involvement in the country from 2001 to 2021, including key decisions pertaining to the war, and to develop lessons learned and policy recommendations.[123]

CRS Products on Afghanistan

For background and analysis on Afghanistan, see CRS Report R46955, *Taliban Government in Afghanistan: Background and Issues for Congress* and CRS Report R46879, *U.S. Military Withdrawal and Taliban Takeover in Afghanistan: Frequently Asked Questions*.

European Deterrence Initiative (EDI), including the Ukraine Security Assistance Initiative (USAI)

The President's budget requested $3.7 billion for activities associated with the European Deterrence Initiative (EDI), a DOD effort intended to bolster the security of U.S. allies and partners following Russia's 2014 invasion and subsequent annexation of Ukraine's Crimea region.[124] Of the total for EDI, $250 million was for Ukraine Security Assistance Initiative (USAI), through which DOD and the State Department provide intelligence support, personnel training, lethal equipment and logistics support, supplies and other service to the Ukrainian military and security forces.[125]

DOD documentation supporting its FY2022 budget request allocated EDI funding across more than 200 budget line items. However, HASC and SASC reports accompanying their versions of the NDAA, and the explanatory statement accompanying the enacted legislation, did not single out EDI activities within all such lines. Thus, in many cases, one could not determine how an increase or decrease to a particular line affected the EDI activity. Certain reports described adjustments as EDI-related but it was not clear how they compared to the original DOD proposal.[126]

An executive summary of the House-passed legislation released by the HASC stated the bill would have "fully" funded the EDI request and invested in "substantial additional capabilities that support deterrence in the European Command area of operations."[127] The legislation would have authorized $300 million for USAI.[128]

[121] Ibid.

[122] 135 Stat. 1934.

[123] 135 Stat. 1935.

[124] For more information, see CRS In Focus IF10946, *The European Deterrence Initiative: A Budgetary Overview*, by Paul Belkin and Hibbah Kaileh.

[125] DOD, *European Deterrence Initiative, Department of Defense Budget Fiscal Year (FY) 2022, Office of the Under Secretary of Defense (Comptroller), June 2021*, p. 20.

[126] See, for example, S.Rept. 117-39, p. 477.

[127] HASC, "Summary of the National Defense Authorization Act for Fiscal Year 2022," September 11, 2021, p. 11.

[128] H.Rept. 117-118, p. 347.

The SASC-reported bill would have authorized an unspecified amount of funding for EDI activities and $300 million for USAI (of which $75 million would have been available for lethal assistance).[129]

The enacted legislation and the accompanying explanatory statement did not identify a total amount authorized for EDI.[130] An executive summary of S. 1605 released by the HASC stated the legislation included "a total $4 billion for the European Deterrence Initiative (EDI) and additional investments for EDI purposes."[131] The legislation authorized $300 million for USAI. Section 1303 of the enacted legislation directed the Secretary of Defense to submit to the congressional defense committees a report on the U.S. defense investment in Europe, including EDI.[132]

CRS Products on the European Deterrence Initiative

For background on the European Deterrence Initiative, see CRS In Focus IF10946, *The European Deterrence Initiative: A Budgetary Overview* and CRS In Focus IF11130, *United States European Command: Overview and Key Issues*.

Pacific Deterrence Initiative (PDI)

The FY2022 President's budget requested $5.1 billion for activities associated with the Pacific Deterrence Initiative, an effort intended to strengthen U.S. defense posture in the Indo-Pacific region, primarily west of the International Date Line, in part by "providing survivable strike and stand-off capability in a denied environment."[133] More than half of the funding was requested for the Navy to procure ships, including an Arleigh Burke (DDG-51) class destroyer to conduct offensive or defensive operations and a T-AO fleet oiler to supply fuel and dry cargo at sea.[134]

DOD has described the funding as a "subset of the Department's FY 2022 budget request, not a separate fund, in targeted investments for the Indo-Pacific region."[135] The HASC and SASC-reported versions of the NDAA, like the aforementioned European Deterrence Initiative, did not single out PDI activities within all relevant budgetary line items. Thus, in many cases, one could not determine how an increase or decrease to a particular line affected the PDI activity. A summary released by the HASC of the House-passed version of the NDAA stated the legislation would have authorized "at least" $8.8 billion for PDI.[136] The SASC-reported version of the bill would have authorized "such sums as may be necessary" for PDI.[137] A summary of S. 2792 released by the SASC stated the legislation would have extended and modified the initiative.[138]

The enacted legislation authorized $7.1 billion for activities associated with PDI, according to a table in the accompanying explanatory statement that identified PDI activities within relevant

[129] SASC, "FY22 NDAA Executive Summary," July 22, 2021, p. 2; and S.Rept. 117-39, pp. 113, 250.

[130] Explanatory statement to accompany the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[131] HASC, "Final Text Summary of the FY22 NDAA," December 7, 2021, p. 9.

[132] 135 Stat. 1998.

[133] DOD, *Pacific Deterrence Initiative, Department of Defense Budget Fiscal Year (FY) 2022, Office of the Under Secretary of Defense (Comptroller), May 2021*, p. 1.

[134] Ibid, p. 9. For more information, see the "Additional DDG-51 Destroyers" section below and CRS Report RL32109, *Navy DDG-51 and DDG-1000 Destroyer Programs: Background and Issues for Congress*.

[135] Ibid., p. 1.

[136] HASC, "Summary of the National Defense Authorization Act for Fiscal Year 2022," September 11, 2021, p. 12.

[137] S. 2792, p. 579.

[138] SASC, "FY22 NDAA Executive Summary," July 22, 2021, p. 2.

budgetary line items.[139] The explanatory statement criticized the Administration's PDI request for emphasizing weapon systems rather than force posture, capabilities, and activities in the region:

> We note that the PDI budget request for fiscal year 2022 was improperly focused on platforms, including the DDG-51, T-AO fleet oiler, and F-35, as opposed to improving the joint posture and enabling capabilities necessary to enhance deterrence in the Indo-Pacific region. Therefore, we identified approximately $7.1 billion in investments that support and attempt to improve the current posture, capabilities, and activities of U.S. forces in the Indo-Pacific region, as reflected in the budgetary display below, that more accurately reflect a baseline from which to measure progress against the objectives of the PDI.[140]

CRS Products on the Pacific Deterrence Initiative

For background on the Pacific Deterrence Initiative, see CRS In Focus IF10607, *China Primer: South China Sea Disputes*.

Procurement and Related Matters

The NDAA typically authorizes appropriations for the vast majority of DOD procurement programs in Title I of Division A of the legislation.[141] DOD procurement accounts fund the purchase of new equipment and modifications to existing weapons, including ships, aircraft, ground combat vehicles, munitions, and various other products and services.[142] The Departments of the Army, Navy, and Air Force have multiple procurement accounts, including those associated with subordinate services (i.e., Marine Corps and Space Force). The Procurement, Defense-Wide account supports Special Operations Command (SOCOM), the Missile Defense Agency, and various other agencies reporting to the Office of the Secretary of Defense.[143] Congress typically appropriates,[144] and in the FY2022 NDAA authorized, funding for the National Guard and Reserve Equipment Account (NGREA) to procure items for the reserve components.[145]

President's Budget Request

The FY2022 President's budget requested $133.6 billion in discretionary funding for DOD procurement programs—$8 billion (6%) less than the enacted FY2021 level.[146] Of this amount, $132.2 billion fell within Title I of the NDAA.[147] In a memorandum to DOD employees, Defense Secretary Austin identified among his priorities efforts to innovate and modernize the department, including divesting "legacy systems and programs that no longer meet our security needs."[148] In

[139] Explanatory statement to accompany the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7328-H7330.

[140] Ibid.

[141] For more information, see CRS In Focus IF10599, *Defense Primer: Procurement*.

[142] For more information, see CRS Report R46965, *The Department of Defense (DOD) Budget: An Orientation*.

[143] Ibid.

[144] See, for example, 134 Stat. 1345.

[145] 135 Stat. 2266.

[146] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. A-1.

[147] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[148] Memorandum from Secretary of Defense Lloyd J. Austin III to DOD employees, "Message to the Force," March 4, 2021, at https://media.defense.gov/2021/Mar/04/2002593656/-1/-1/0/SECRETARY-LLOYD-J-AUSTIN-III-

an overview of the FY2022 DOD budget request, the department identified $2.8 billion in divestments among the military departments and SOCOM, including certain ships (e.g., Ticonderoga-class guided missile cruisers and Littoral Combat Ships),[149] aircraft (e.g., A-10 close air support aircraft and KC-10 and KC-135 refueling tankers),[150] and other systems.[151]

House-Passed NDAA

The House-passed NDAA would have authorized $147.1 billion for procurement programs—$14.9 billion (11.2%) more than the request.[152] The House legislation would have authorized $17 billion in increases to the request (i.e., funding beyond the amounts for certain programs requested in the budget or for programs not requested in the budget). The net effect of these increases would have been offset by $2.15 billion in decreases to other programs.

The Biden Administration "strongly" opposed the House bill's "restoration of funding to systems that limit DOD's ability to divest or retire lower priority platforms not relevant to tomorrow's battlefield."[153]

SASC-Reported NDAA

The SASC-reported NDAA would have authorized $144.1 billion for procurement programs—$11.8 billion (9.0%) more than the request.[154] The legislation would have authorized $12.4 billion in increases to the request. The net effect of these increases would have been offset by $0.6 billion in decreases to other programs.

The Biden Administration "strongly" opposed the SASC bill's restoration of funding for certain "vulnerable and costly platforms that no longer meet mission or security needs."[155]

Enacted NDAA

The enacted NDAA authorized $146.9 billion for procurement programs—$14.7 billion (11.1%) more than the request.[156] The legislation authorized $16.4 billion in increases to the request, including for certain DOD unfunded priorities.[157] The net effect of these increases was offset by

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[149] For additional background and analysis on these programs, see CRS Report RS22595, *Navy Aegis Cruiser and Destroyer Modernization: Background and Issues for Congress* and CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background and Issues for Congress*.

[150] For additional background and analysis on these programs, see CRS Report R43843, *Proposed Retirement of A-10 Aircraft: Background in Brief* and CRS Report RL34398, *Air Force KC-46A Pegasus Tanker Aircraft Program*.

[151] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. 3-8.

[152] CRS analysis of H.Rept. 117-118, p. 346, accompanying H.R. 4350; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[153] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[154] CRS analysis of S.Rept. 117-39, p. 378; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[155] White House, "Statement of Administration Policy, S. 2792 – National Defense Authorization Act for Fiscal Year 2022," November 17, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/11/S-2797-SAP.pdf.

[156] CRS analysis of the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[157] For more information, see CRS In Focus IF11964, *Defense Primer: Department of Defense Unfunded Priorities*.

$1.7 billion in decreases to other programs. Among the accounts with the biggest increases from the requested levels were National Guard and Reserve Equipment, ground combat vehicles, ships, and aircraft. Among those accounts with the biggest decreases were ammunition. See **Table 6**.

Table 6. Summary of Procurement Authorizations in the FY2022 NDAA

(in billions of dollars)

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized -Request)
Aircraft Procurement, Army	$2.81	$3.31	$3.13	$3.36	19.6%
Missile Procurement, Army	$3.56	$3.65	$3.69	$3.65	2.5%
Weapons & Tracked Combat Vehicles, Army	$3.88	$4.72	$4.53	$4.70	21.1%
Procurement of Ammunition, Army	$2.16	$2.44	$2.44	$2.46	13.8%
Other Procurement, Army	$8.87	$8.93	$8.88	$8.99	1.3%
Aircraft Procurement, Navy	$16.48	$19.61	$19.18	$19.8	20.2%
Weapons Procurement, Navy	$4.22	$4.13	$4.34	$4.13	-2.0%
Procurement of Ammunition, Navy & Marine Corps	$0.99	$0.98	$1.03	$0.90	-8.7%
Shipbuilding & Conversion, Navy	$22.57	$28.42	$25.12	$27.28	20.9%
Other Procurement, Navy	$10.88	$11.03	$11.52	$11.17	2.7%
Procurement, Marine Corps	$3.04	$3.62	$3.72	$3.62	19.0%
Aircraft Procurement, Air Force	$15.73	$17.47	$18.6	$18.13	15.3%
Missile Procurement, Air Force	$2.67	$2.57	$2.67	$2.58	-3.5%
Procurement of Ammunition, Air Force	$0.80	$0.79	$0.80	$0.71	-10.1%
Other Procurement, Air Force	$25.25	$25.79	$25.73	$25.75	2.0%
Procurement, Space Force	$2.77	$2.77	$2.80	$2.79	0.7%
Procurement, Defense-Wide	$5.55	$5.89	$5.88	$5.92	6.8%
National Guard & Reserve Equipment	$0.00	$0.95	$0.00	$0.95	n/a
Total	**$132.21**	**$147.06**	**$144.05**	**$146.88**	**11.1%**

Source: CRS analysis of funding tables in H.Rept. 117-118, p. 346; S.Rept. 117-39, p. 378; and explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

Note: Totals for request and authorized amounts from explanatory statement; totals for House-passed and SASC-reported from committee reports. Totals may not sum due to rounding. Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts.

Selected Increases and Decreases

Among the largest line-item increases for procurement programs in the enacted NDAA from requested amounts, in terms of dollar value, were

- $2.9 billion for the Navy to procure two more DDG-51 destroyers (for a total of three ships);[158]
- $1.1 billion for the Air Force to modify F-35A conventional takeoff and landing aircraft to the Block 4 software configuration (also called Continuous Capability Development and Delivery, or C2D2);[159]
- $950 million for the military Departments to buy National Guard and Reserve Equipment;[160]
- $889 million for the Navy to procure 12 F/A-18E/F fighter attack aircraft;[161] and
- $749 million for the Navy to procure nine additional V-22 tilt-rotor aircraft (for a total of 17 aircraft).[162]

Among the largest line-item decreases for procurement programs, in terms of dollar value, were

- $263.5 million for the Army to procure next-generation night vision devices (mostly for the Integrated Visual Augmentation System, or IVAS);[163]
- $180 million for the Navy to procure three fewer auxiliary vessels—used commercial cargo ships kept on reserve for military sealift (i.e., the transportation by sea of equipment and supplies during combat operations);[164]
- $87.1 million for the Navy to modify the RIM-162 Evolved SeaSparrow Missile (ESSM), a surface-to-air missile intended for ship defense;[165]
- $76.0 million in advance procurement (AP) funding for the Navy to procure a TAO-205 John Lewis-class oiler in a future fiscal year;[166] and

[158] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7375.

[159] Ibid., p. H7381.

[160] Ibid., p. H7386.

[161] Ibid., p. H7371. For additional background and analysis, see CRS Report RL30624, *Navy F/A-18E/F and EA-18G Aircraft Program*.

[162] Ibid., p. H7372. For additional background and analysis, see CRS Report RL31384, *V-22 Osprey Tilt-Rotor Aircraft Program*.

[163] Ibid., p. H7370. Note this amount includes a $50 million funding transfer to a line in the Research, Development, Test, and Evaluation, Army account for engineering development of night vision systems.

[164] Ibid., p. H7375. For additional background and analysis, see CRS Report R45725, *Shipping Under the Jones Act: Legislative and Regulatory Background*.

[165] Ibid., p. H7374.

[166] Ibid., p. H7375. For additional background and analysis, see CRS Report R43546, *Navy John Lewis (TAO-205)*

- $75.5 million for the Air Force's Joint Direct Attack Munition (JDAM), a GPS-based guidance kit for bombs.[167]

Limitations on Aircraft, Ship Divestments

Various provisions in the enacted NDAA limited DOD's ability to divest certain aircraft and ships, either by prohibiting the use or limiting the availability of funds for their retirement or inactivation, or by establishing minimum inventory requirements. For example, Section 134 prohibited the use of funds for the retirement of A-10 aircraft; Section 137 limited the number of KC-135 tankers available for retirement; and Section 138 established a minimum inventory requirement for tactical airlift aircraft (e.g., C-130 cargo aircraft). Similarly, Section 1018 prohibited the use of funds for the retirement of Mark VI patrol boats and Section 1019 limited the availability of funds for the retirement of Ticonderoga-class guided missile cruisers.

CRS Products on Selected DOD Acquisition Programs

For additional background and analysis on A-10 aircraft, see CRS Report R43843, *Proposed Retirement of A-10 Aircraft: Background in Brief*; on C-130 aircraft, see CRS Report R43618, *C-130 Hercules: Background, Sustainment, Modernization, Issues for Congress*; and on Ticonderoga-class cruisers, see CRS Report RS22595, *Navy Aegis Cruiser and Destroyer Modernization: Background and Issues for Congress*.

Additional DDG-51 Destroyers

For FY2022, the Navy requested $2 billion for the procurement of one DDG-51 guided-missile destroyer rather than two ships projected under the prior-year budget submission. While officials described the change in part as an affordability measure, the Navy identified an additional $1.7 billion to procure a second destroyer in FY2022 on its unfunded priorities list.[168] The service said the additional funding was needed to complete a multi-ship procurement and to conduct missions in a "demanding" environment.[169] In recommending authorization for a multi-year procurement of DDG-51 Flight III destroyers beginning in FY2023, the HASC expressed concern that "the Navy is not adequately planning for the DDG(X) procurement" and noted the service's most recent shipbuilding proposal reduced a destroyer in FY2022 and violated the current multiyear procurement contract. The enacted NDAA authorized $2.9 billion for the Navy to procure two more DDG-51s than requested, for a total of $4.9 billion for three ships.[170]

CRS Products on Navy Destroyers

For additional background and analysis on Navy destroyer programs, see CRS Report RL32109, *Navy DDG-51 and DDG-1000 Destroyer Programs: Background and Issues for Congress*; CRS In Focus IF11679, *Navy DDG(X) Next-*

Class Oiler Shipbuilding Program: Background and Issues for Congress.

[167] Ibid., p. H7383. For additional background and analysis, see CRS Report R45996, *Precision-Guided Munitions: Background and Issues for Congress*, by John R. Hoehn.

[168] DOD unfunded priorities generally refer to reports submitted to Congress pursuant to United States Code provisions (10 U.S.C. §222a and 10 U.S.C. §222b) listing military programs, activities, or mission requirements that were not included in the President's annual budget request but that the department would fund with additional appropriations. For more information, see CRS In Focus IF11964, *Defense Primer: Department of Defense Unfunded Priorities*.

[169] Sam LaGrone, "Destroyer, Navy Tactical Grid Systems Top $5.5B FY 22 Navy Unfunded List," *USNI News*, updated June 5, 2021, at https://news.usni.org/2021/06/01/destroyer-navy-tactical-grid-systems-top-5-5b-fy-22-navy-unfunded-list.

[170] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7375.

Generation Destroyer Program: Background and Issues for Congress; and CRS Report RS22595, *Navy Aegis Cruiser and Destroyer Modernization: Background and Issues for Congress*.

F-35 Funding, Affordability Targets, and Transfer of Program Responsibilities

The enacted NDAA authorized more funding than requested for the F-35 aircraft, including an additional $1.1 billion for the Air Force to modify F-35A conventional takeoff and landing aircraft to the Block 4 software configuration (also called Continuous Capability Development and Delivery, or C2D2).[171] Section 141 of the enacted NDAA required the Secretaries of the Air Force and Navy to limit their inventories of F-35 aircraft beginning in FY2029 unless they meet certain affordability targets based on a "cost per tail" calculation, which is derived from operating and support costs (not development and procurement costs).[172] The Administration had described such affordability targets as "outdated" and "unrealistic"—and cited as an example a $4.1 million affordability target for the F-35A (in constant 2012 dollars).[173] GAO recently put this figure at $7.8 million—a difference estimated to result in a cost overrun for the Air Force of $4.4 billion in 2036.[174] Section 142 of the legislation required the Secretary of Defense to transfer "all functions relating to the management, planning, and execution of sustainment activities for the F-35 aircraft program from the F-35 Joint Program Office" to the aforementioned service secretaries. Some observers have previously argued that the overhead structure of a joint office is unnecessary after production; and that the F-35 is, in effect, three separate aircraft with less commonality than originally envisioned.[175]

CRS Products on F-35 Aircraft

For additional background and analysis on the F-35 program, see CRS Report RL30563, *F-35 Joint Strike Fighter (JSF) Program*; CRS Report R41131, *F-35 Alternate Engine Program: Background and Issues for Congress*; and CRS Podcast WPD00003, *The F-35*.

Cost Estimate for B-52 Commercial Engine Replacement Program (CERP)

Section 135 of the enacted NDAA limited the availability of a portion of funding for the Air Force's B-52 Commercial Engine Replacement Program (CERP) to replace the TF33 engines on the B-52H Stratofortress bomber fleet until the Secretary of Defense submits a report to the congressional defense committees detailing a cost estimate for the program.[176] The Biden Administration had argued that establishing such an estimate was "premature" and "inadequate," and that limiting funds could delay the program.[177]

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[171] For additional background and analysis, see CRS Report RL30563, *F-35 Joint Strike Fighter (JSF) Program*.

[172] According to GAO, "Cost per tail per year is defined as the average annual operating and support cost per aircraft (tail) in a given fleet. It is generally estimated by dividing total operating and support costs of an aircraft fleet by the total number of aircraft." For more information, see GAO, *F-35 SUSTAINMENT: DOD Needs to Cut Billions in Estimated Costs to Achieve Affordability*, GAO-21-439, July 2021, p. 37, at https://www.gao.gov/assets/gao-21-439.pdf.

[173] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[174] Ibid.

[175] For more information, see CRS Report RL30563, *F-35 Joint Strike Fighter (JSF) Program*, p. 19.

[176] For more information, see CRS Insight IN11413, *B-52 Re-Engining Program Begins*.

[177] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year

CRS Product on B-52 Engine Replacement Program

For more information on the B-52 engine replacement program, see CRS Insight IN11413, *B-52 Re-Engining Program Begins*.

Reports on Integrated Visual Augmentation System (IVAS)

The enacted NDAA authorized $263.5 million less funding than requested for the Army to procure next-generation night vision devices (mostly for the Integrated Visual Augmentation System, or IVAS).[178] In addition, Section 115 of the enacted NDAA limited the availability of a portion of funding for the Army's Integrated Visual Augmentation System (IVAS), a mixed-reality headset based on the HoloLens developed by Microsoft Corporation,[179] until the Secretary of the Army submits a report to the congressional defense committees certifying that the technology is reliable enough to meet operational needs and providing other information; and until the Director of Operational Test and Evaluation submits an assessment of the aforementioned report.

CRS Products on Soldier Enhancement Programs

For more information on Army night-vision programs, see CRS In Focus IF12010, *Military Applications of Extended Reality*; and CRS In Focus IF11654, *The Army's Project Convergence*.

Research, Development, Test, and Evaluation (RDT&E) and Related Matters

The NDAA typically authorizes appropriations for most DOD research, development, test, and evaluation (RDT&E) programs in Title II of Division A.[180] The department's RDT&E accounts fund a range of activities, including basic research on emerging technologies, advanced research on current or near-term operational needs, and, most recently, software and digital technology pilot programs.[181] Such efforts are carried out by DOD, as well as laboratories in other federal agencies, universities, companies in the private sector, and other entities.[182] The NDAA authorizes appropriations for RDT&E accounts of the Army, Navy, Air Force, and Space Force. The Research, Development, Test and Evaluation, Defense-Wide, account funds activities of the Missile Defense Agency (MDA), Defense Advanced Research Projects Agency (DARPA), and other agencies reporting to the Office of the Secretary of Defense. The Operational Test and Evaluation, Defense account funds the Office of the Director of Operational Test and Evaluation for oversight of major defense programs, live fire test and evaluation, and other activities.

2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[178] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7370.

[179] For more information, see CRS In Focus IF12010, *Military Applications of Extended Reality* and CRS In Focus IF11654, *The Army's Project Convergence*.

[180] Title XIV of the NDAA typically authorizes appropriations for various other research and development activities, including those associated with the destruction of chemical agents and munitions, Defense Health Program, and Office of the Inspector General.

[181] For more information, see CRS Report R46965, *The Department of Defense (DOD) Budget: An Orientation*.

[182] For more information, see CRS In Focus IF10553, *Defense Primer: RDT&E*.

President's Budget Request

The FY2022 President's budget requested $112 billion in discretionary funding for the department's RDT&E programs—$5.5 billion (5%) more than the enacted FY2021 level.[183] All of this funding fell within Title II of Division A of the NDAA.[184] In a memorandum to DOD employees, Defense Secretary Austin said DOD's ability to innovate "at a speed and scale" to counter threats depends in part on "a commitment to rapid experimentation and fielding of capabilities."[185] In an overview of the FY2022 budget request, DOD described the level of RDT&E funding as "the most ever." [186] The document also identified amounts for certain advanced technologies, including

- $3.8 billion for hypersonic technologies (e.g., the Army's Long Range Hypersonic Weapon, or LRHW; the Navy's Conventional Prompt Strike, or CPS; and the Air Force's Air-Launched Rapid Response Weapon, or ARRW);[187]
- $2.3 billion for various microelectronics efforts;
- $874 million for artificial intelligence activities;[188] and
- $398 million for 5G wireless networks.[189]

House-Passed NDAA

The House-passed NDAA would have authorized $118.1 billion for RDT&E programs—$6.1 billion (5.5%) more than the request.[190] The House legislation would have authorized $7.4 billion in increases to the request (i.e., funding beyond the amounts for certain programs requested in the budget or for programs not requested in the budget). The net effect of these increases would have been offset by $1.3 billion in decreases to other programs.

SASC-Reported NDAA

The SASC-reported NDAA would have authorized $116.1 billion for RDT&E programs—$4.2 billion (3.7%) more than the request.[191] The SASC legislation would have authorized $4.4 billion

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[183] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. A-1.

[184] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[185] Memorandum from Secretary of Defense Lloyd J. Austin III to DOD employees, "Message to the Force," March 4, 2021, at https://media.defense.gov/2021/Mar/04/2002593656/-1/-1/0/SECRETARY-LLOYD-J-AUSTIN-III-MESSAGE-TO-THE-FORCE.PDF.

[186] DOD, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request, p. A-1. For additional background and analysis, see CRS Report R46869, *Federal Research and Development (R&D) Funding: FY2022*.

[187] For additional background and analysis, see CRS Report R45811, *Hypersonic Weapons: Background and Issues for Congress*.

[188] For additional background and analysis, see CRS Report R45178, *Artificial Intelligence and National Security*.

[189] For more information, see CRS In Focus IF11251, *National Security Implications of Fifth Generation (5G) Mobile Technologies*.

[190] CRS analysis of H.Rept. 117-118, p. 346, accompanying H.R. 4350; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[191] CRS analysis of S.Rept. 117-39, p. 378; and the explanatory statement accompanying the FY2022 NDAA (P.L.

in increases to the request. The net effect of these increases would have been offset by more than $0.2 billion in decreases to other programs.

Enacted NDAA

The enacted NDAA authorized $117.7 billion for RDT&E programs—$5.8 billion (5.1%) more than the request.[192] The legislation authorized $6.5 billion in increases to the request, including for certain DOD unfunded priorities.[193] The net effect of these increases was offset by $0.7 billion in decreases to other programs. Among the accounts with the biggest increases from the request were Research, Development, Test and Evaluation, Defense-Wide and Operational Test and Evaluation, Defense. See **Table 7**.

Table 7. Summary of Research, Development, Test and Evaluation Authorizations in the FY2022 NDAA

(in billions of dollars)

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized-Request)
RDT&E, Army	$12.80	$13.41	$13.11	$13.31	4.0%
RDT&E, Navy	$22.64	$23.18	$23.77	$23.10	2.0%
RDT&E, Air Force	$39.18	$39.44	$40.10	$40.50	3.4%
RDT&E, Space Force	$11.27	$11.60	$11.80	$11.79	4.6%
RDT&E, Defense-Wide	$25.86	$30.25	$27.13	$28.78	11.3%
OT&E, Defense	$0.22	$0.22	$0.24	$0.24	9.2%
Total	**$111.96**	**$118.11**	**$116.14**	**$117.73**	**5.1%**

Source: CRS analysis of funding tables in explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in the *Congressional Record*, December 7, 2021, pp. H7362, H7386-H7416.

Note: Totals may not sum due to rounding. Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts.

Selected Increases and Decreases

Among the largest increases, in terms of dollar value, for RDT&E line items from the budget request to the enacted NDAA, were

- $315 million for defense-wide information and communications technology to implement recommendations from the National Security Commission on Artificial Intelligence and accelerate applied research into quantum computing, among other activities;[194]

117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[192] CRS analysis of the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[193] For more information, see CRS In Focus IF11964, *Defense Primer: Department of Defense Unfunded Priorities*.

[194] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the

- $263 million for Air Force aerospace sensors to conduct applied research on microelectronics, among other activities;[195]
- $257 million for Air Force advanced engine development of prototype turbines for next-generation combat aircraft;[196]
- $246.3 million for the defense-wide manufacturing science and technology program for biotechnology innovation, among other activities;[197] and
- $218 million for defense-wide technology analysis to support research into using existing radiofrequency signals, such as those from commercial satellites—so-called signals of opportunity—for the purpose of obtaining position, navigating, and timing (PNT) information, among other activities.[198]

Among the largest decreases, in terms of dollar value, for RDT&E line items from the budget request to the enacted NDAA, were

- $89.8 million for Army technology maturation initiatives (conferees described most of the reduction as an "[i]nsufficient justification");[199]
- $64.6 million for the ballistic missile defense segment that develops programs intended to destroy short- to intermediate-range missiles during their final phase of flight (conferees described the reduction as "[u]njustified request, lacking acquisition strategy");[200]
- $60.1 million for Navy [Take Charge and Move Out] TACAMO modernization to develop a replacement for E-6 command-and-control aircraft, designed to provide a secure communications platform during a nuclear attack (conferees described the reduction as "[u]njustified air vehicle acquisition strategy");[201]
- $55 million for Air Force B-52 squadrons to improve the bomber fleet's weapons systems through development and testing of hardware and software (conferees described the reduction as a "rapid prototyping materiel contract delay" associated with the Commercial Engine Replacement Program (CERP);[202] and
- $47 million for Navy unmanned surface vehicle enabling capabilities, including autonomy development, machinery qualification efforts, and sensor acquisition, among other activities (conferees described the reduction as "USV machinery qualification insufficient justification").[203]

Congressional Record, December 7, 2021, p. H7409.

[195] Ibid., p. H7400.

[196] Ibid., p. H7401.

[197] Ibid., p. H7410.

[198] Ibid., p. H7414.

[199] Ibid., p. H7390.

[200] Ibid., p. H7412.

[201] Ibid., p. H7397.

[202] Ibid., p. H7403.

[203] Ibid., p. H7396.

Homeland Defense Radar

The House-passed and SASC-reported NDAAs would have authorized funding for the defense-wide Homeland Defense Radar-Hawaii, a missile defense radar intended to help defend Hawaii from long-range ballistic missile threats and to address operational requirements identified by U.S. Northern Command and U.S. Indo-Pacific Command (INDOPACOM). The enacted NDAA authorized $75 million for the radar. INDOPACOM had requested a total of $60 million (in both RDT&E and military construction funding) on its unfunded priorities list for the radar and related infrastructure as part of a plan to begin operating the system in FY2024.[204] The Administration had opposed additional funding for the radar in part because other associated systems have been delayed or canceled.[205] It argued, "Hawaii is currently defended against missile threats to the same extent as the rest of the United States, and DOD is currently investing in other capabilities, such as the Next Generation Interceptor, which will support the long-term defense of Hawaii."[206]

Software and Digital Technology Pilot Programs

For FY2022, DOD requested $2.3 billion for 13 software and digital technology pilot programs within a relatively new budget activity in various RDT&E accounts. This budget activity, known as 6.8 and created in FY2021, is intended to provide DOD with greater acquisition and budgetary flexibility for modern software development in part by allowing such funding to be used for "agile research, development, test and evaluation, procurement, production, modification, and operation and maintenance."[207] The enacted NDAA supported the Administration's request for software and digital technology pilot programs, including authorizing an additional $36 million for the defense-wide Algorithmic Warfare Cross Functional Team initiative, formerly known as Project Maven, which seeks to accelerate the integration of artificial intelligence into DOD systems in part by automating tasks associated with object identification and tracking.[208]

RDT&E Earmarks

For RDT&E accounts, the enacted NDAA authorized $98 million for 29 earmarks (also known as congressionally directed spending or Community Project Funding items).[209] The vast majority of such funding was for universities, where DOD typically spends nearly half of its basic research budget.[210] Specific items included aerospace composite research, a deployable launch facility, and microfabrication technology, among others.

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[204] Jason Sherman, "INDOPACOM ranks additional funding for Guam defense system, Hawaii missile defense radar on FY-22 wish list," *Inside Defense*, June 11, 2021, at https://insidedefense.com/daily-news/indopacom-ranks-additional-funding-guam-defense-system-hawaii-missile-defense-radar-fy-22.

[205] White House, "Statement of Administration Policy, S. 2792 – National Defense Authorization Act for Fiscal Year 2022," November 17, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/11/S-2797-SAP.pdf.

[206] Ibid.

[207] 134 Stat. 1335. For more information, see CRS In Focus IF10553, *Defense Primer: RDT&E*.

[208] CRS analysis of the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7416. For additional background and analysis, see CRS Report R45392, *U.S. Ground Forces Robotics and Autonomous Systems (RAS) and Artificial Intelligence (AI): Considerations for Congress*.

[209] Ibid., pp. H7462-H7463. (Note that certain Community Project Funding Items are repeated in the table.) For additional background and analysis on earmarks, see CRS Report R45429, *Lifting the Earmark Moratorium: Frequently Asked Questions*.

[210] For more information, see CRS In Focus IF10553, *Defense Primer: RDT&E*.

CRS Products on Congressional Earmarks

For additional background and analysis on congressional earmarks, see CRS Report RS22866, *Earmark Disclosure Rules in the House: Member and Committee Requirements*; and CRS Report RS22867, *Earmark Disclosure Rules in the Senate: Member and Committee Requirements*.

Operation and Maintenance (O&M) and Related Matters

The NDAA typically authorizes appropriations for most DOD Operation and Maintenance (O&M) activities in Title III of Division A.[211] DOD O&M accounts cover the operating costs of the active and reserve components of the armed services, including fuel; supplies; spare parts; routine maintenance of aircraft, ships, ground vehicles, electronic equipment, and facilities; recruiting; training; professional education; administrative activities; and headquarters and supply operations.[212] O&M accounts also fund the pay and benefits of DOD civilian employees; various overseas activities (i.e., the Ukraine Security Assistance Initiative; Counter-ISIS Train and Equipment Fund; Overseas Humanitarian, Disaster, and Civic Aid),[213] environmental restoration activities; and the DOD Acquisition Workforce Development Fund; among other efforts. DOD has identified certain O&M line items (also known as Sub-Activity Groups, or SAGs) as related to military readiness, which DOD defines as "the ability of military forces to fight and meet the demands of assigned missions."[214]

President's Budget Request

The FY2022 President's budget requested $290.4 billion in discretionary funding for the department's O&M programs—$7.0 billion (2.5%) more than the enacted FY2021 level.[215] Of this amount, $255.4 billion fell within Title III of Division A of the NDAA.[216] In a memorandum to DOD employees, Defense Secretary Austin said, "The Department will prioritize China as our number one pacing challenge and develop the right operational concepts, capabilities, and plans to bolster deterrence and maintain our competitive advantage."[217] Austin also said force readiness is enhanced when department officials "fully embrace a diversity of backgrounds, experiences, and thought."[218] In an overview of the FY2022 budget request, DOD described the provision of reliable, predictable, and on-time funding from Congress as a "critical" factor for sustaining

[211] Ibid., pp. H7362-H7363. Appropriations for the Defense Health Program and certain other activities funded in DOD O&M accounts are typically authorized in Title XIV of the NDAA.

[212] For additional background and analysis, see CRS Report R46965, *The Department of Defense (DOD) Budget: An Orientation*.

[213] For more information on FY2022 authorizations for contingency operations, see the "Overseas Contingency Operations (OCO) Funding and Related Matters" section.

[214] For additional background and analysis, see CRS Report R46559, *The Fundamentals of Military Readiness*, Summary and Appendix C.

[215] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. A-1.

[216] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7363.

[217] Memorandum from Secretary of Defense Lloyd J. Austin III to DOD employees, "Message to the Force," March 4, 2021, p. 1.

[218] Ibid., p. 2.

readiness, in part by allowing the armed services to "properly plan training events and exercises, order long-lead depot supplies and parts, and make other key readiness investments."[219]

House-Passed NDAA

The House-passed NDAA would have authorized $253 billion for O&M activities in Title III of Division A—effectively flat from the request ($0.6 billion, or 0.2%, less than the request).[220]

SASC-Reported NDAA

The SASC-reported NDAA would have authorized $260.4 billion for O&M activities in Title III of Division A—$6.8 billion (2.7%) more than the request.[221]

Enacted NDAA

The enacted NDAA authorized $255.4 billion for O&M activities in Title III of Division A—$1.8 billion (0.7%) more than the request.[222] The legislation authorized $6.4 billion in increases to the request, including for certain DOD unfunded priorities.[223] The net effect of these increases was offset by $4.6 billion in decreases to other programs. See **Table 8**.

Table 8. Summary of Operation and Maintenance Authorizations in the FY2022 NDAA

(in billions of dollars)

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized-Request)
Operation and Maintenance, Army	$54.62	$52.54	$57.14	$55.6	1.8%
Operation and Maintenance, Army Reserve	$3.00	$3.00	$2.99	$2.99	-0.3%
Operation and Maintenance, Army National Guard	$7.65	$7.69	$7.62	$7.61	-0.5%
Afghanistan Security Forces Fund	$3.33	$0.33	$3.33	$0.00	-100.0%
Counter ISIS Train and Equip Fund (CTEF)	$0.52	$0.52	$.52	$0.52	0.0%
Operation and Maintenance, Navy	$60.44	$61.81	$61.86	$61.92	2.4%
Operation and Maintenance, Marine Corps	$9.02	$9.07	$9.19	$9.19	1.8%

[219] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. 4-1.

[220] CRS analysis of H.Rept. 117-118, p. 346, accompanying H.R. 4350; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[221] CRS analysis of S.Rept. 117-39, p. 379; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[222] CRS analysis of the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[223] For more information, see CRS In Focus IF11964, *Defense Primer: Department of Defense Unfunded Priorities*.

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized-Request)
Operation and Maintenance, Navy Reserve	$1.15	$1.15	$1.13	$1.15	-0.2%
Operation and Maintenance, Marine Corps Reserve	$0.29	$0.33	$.32	$0.33	16.1%
Operation and Maintenance, Air Force	$53.88	$53.42	$56.12	$54.49	1.1%
Operation and Maintenance, Space Force	$3.44	$3.75	$3.75	$3.61	4.9%
Operation and Maintenance, Air Force Reserve	$3.35	$3.19	$3.32	$3.31	-1.1%
Operation and Maintenance, Air National Guard	$6.57	$6.55	$6.56	$6.57	-0.1%
Operation and Maintenance, Defense-Wide	$44.92	$46.62	$45.08	$45.71	1.8%
Ukraine Security Assistance	$0.00	$0.30	$0.00[a]	$0.30	n/a
United States Court of Appeals for the Armed Forces	$0.02	$0.02	15,589	$0.02	0.0%
DOD Acquisition Workforce Development Fund	$0.05	$0.05	$0.05	$0.05	0.0%
Overseas Humanitarian, Disaster, and Civic Aid	$0.11	$0.65	$0.14	$0.15	36.3%
Cooperative Threat Reduction Account	$0.24	$0.34	$0.24	$0.34	43.8%
Environmental Restoration	$1.03	$1.70	$1.03	$1.55	50.3%
Total	**$253.62**	**$253.03**	**$260.41**	**$255.40**	**0.7%**

Source: CRS analysis of funding tables in H.Rept. 117-118, pp. 346-347; S.Rept. 117-39, pp. 378-379, 476-505; and explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7362-H7363, H7416-H7434.

Note: Totals for request and authorized amounts from explanatory statement; totals for House-passed and SASC-reported from committee reports. Totals may not sum due to rounding. Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts.

a. The SASC-reported legislation would have authorized $300 million for Ukraine Security Assistance as part of the Operation and Maintenance, Defense-Wide account in the table. For more information on this assistance, see the "Overseas Contingency Operations (OCO) Funding and Related Matters" section earlier in this report.

Selected Increases and Decreases

Among the largest increases, in terms of dollar value, for O&M line items from the budget request to the enacted NDAA, were

- A combined total of $1.6 billion for several line items associated with the armed services' facilities sustainment, restoration, and modernization (FSRM) activities,

which includes facility maintenance and repair projects typically costing less than $2 million each;[224]

- $316.9 million for Air Force contractor logistics support and system support, mainly to sustain F-35 fighter aircraft and maintain F-35 aircraft and A-10 close-air support aircraft;[225]
- $280.4 million for Navy mission and other flight operations to expand the flying hour program, which funds fuel and other consumable items for aircraft;[226]
- $247 million for Navy combatant commanders direct mission support, mostly for program increases and unfunded priorities of U.S. Indo-Pacific Command (INDOPACOM);[227] and
- $222.2 million for Navy aircraft depot maintenance for several dozen airframes and hundreds of engines and engine modules for E-2 airborne command-and-control aircraft, E-6B airborne command post aircraft, F/A-18E/F/G fighter-attack aircraft, and P-8A maritime surveillance aircraft, and MH-60R/S helicopters.[228]

Among the largest decreases, in terms of dollar value, for O&M line items from the budget request to the enacted NDAA, were

- A combined total of $3.3 billion for the Afghanistan Security Forces Fund;[229]
- $100 million for Army theater level assets (conferees described the reduction as "[u]njustified growth");[230]
- $70 million for Air Force base support (conferees described the reduction as "[u]njustified growth");[231]
- $66.9 million for defense-wide classified programs (conferees described the reduction as a "[c]lassified adjustment");[232] and
- A combined total of $55.3 million for Air Force and Air Force Reserve primary combat forces (conference described the reductions as "[u]njustified growth").[233]

[224] See, for example, the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7418, H7424, H7426. For more information on FSRM, see CRS Report R44710, *Military Construction: Authorities, Process, and Frequently Asked Questions*.

[225] Ibid., pp. H7426-H7427.

[226] Ibid., p. H7422.

[227] Ibid., p. H7423.

[228] Ibid., p. H7422.

[229] Ibid. For more information on this topic, see the "Overseas Contingency Operations (OCO) Funding and Related Matters" section earlier in this report.

[230] Ibid., p. H7417.

[231] Ibid., p. H7427.

[232] Ibid., p. H7432.

[233] Ibid., pp. H7426, H7429.

Per- and Polyfluoroalkyl Substances (PFAS) Contamination and Related Issues[234]

Congress has included provisions to address per- and polyfluoroalkyl substances (PFAS) in each NDAA for the past five fiscal years from FY2018 through FY2022. PFAS are a large, diverse group of fluorinated compounds that have been used for several decades in numerous commercial, industrial, and U.S. military applications including use as an ingredient in aqueous film forming foam (AFFF) for extinguishing petroleum-based liquid fuel fires. Some studies of a subset of PFAS have identified potential associations with various health effects at certain exposure levels, but the toxicity of most PFAS is less studied.[235]

Some PFAS—primarily perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS)—have been detected in drinking water sources, other environmental media, and dairy milk at various locations, some of which have been associated with releases of these chemicals from the use of AFFF at U.S. military facilities. The production and civilian uses of PFAS also have released some of these chemicals into the environment.[236] The disposal of AFFF and other materials containing PFAS, procurement of materials containing these chemicals, and the development of non-fluorinated alternatives to AFFF have presented additional issues for DOD and others.

DOD has identified known or suspected releases of PFAS at 700 DOD and National Guard facilities from the use of AFFF, as of the end of FY2021.[237] DOD has been investigating these releases under the Defense Environmental Restoration Program to determine whether actions are warranted to protect human health and the environment.[238] In July 2021, DOD estimated $1.1 billion obligated through FY2020 and $2.1 billion in future costs to investigate and remediate these releases, but noted uncertainties in these costs given pending investigations, future federal and state standards, and challenges in separating costs at sites with multiple contaminants.[239]

Congress included multiple provisions to address PFAS in the FY2022 NDAA,[240] some of which originated in the House and others in the Senate. The House and Senate proposed additional PFAS provisions that were not adopted, some of which in the House-passed bill focused on the regulatory role of the Environmental Protection Agency (EPA).[241] PFAS provisions in the enacted FY2022 NDAA build upon certain requirements in prior NDAAs:

- Section 341 codified the membership and functions of the DOD PFAS Task Force and requires DOD to complete Preliminary Assessments and Site

[234] David M. Bearden, Specialist in Environmental Policy, authored this section. For information on PFAS contamination and related issues, contact David M. Bearden at 7-2390, dbearden@crs.loc.gov.

[235] For more information, see: Agency for Toxic Substances and Disease Registry, *Toxicological Profile for Perfluoroalkyls*, May 2021, at https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=1117&tid=237.

[236] For additional information about PFAS and related issues, see CRS Report R45986, *Federal Role in Responding to Potential Risks of Per- and Polyfluoroalkyl Substances (PFAS)*.

[237] DOD, *Progress at the 700 Installations Being Assessed for PFAS Use or Potential Release*, September 30, 2021, at https://media.defense.gov/2022/Jan/24/2002926249/-1/-1/0/DOD-PFAS-PROGRESS-AS-OF-SEPT-30-2021.PDF.

[238] The Defense Environmental Restoration Program is authorized at 10 U.S.C. §§2700-2715, and is subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. §§9601-9675).

[239] DOD, *Per-and Polyfluoroalkyl Substances Cleanup Costs*, July 2021, at https://www.denix.osd.mil/derp/featured-content/reports/pfas-cleanup-cost/PFAS%20Cleanup%20Costs.pdf.

[240] P.L. 117-81, Division A, Title III, Operation and Maintenance, Subtitle D, Treatment of Perfluoroalkyl Substances and Polyfluoroalkyl Substances, §§341-349.

[241] H.R. 4350, Division E, Title LXIV—Other Matters, §§6419-6422.

Inspections[242] within two years of enactment at DOD and National Guard facilities in the United States where DOD has identified PFAS releases as of March 31, 2021.

- Section 342 extended the authority for DOD to transfer funding through FY2023 to the Centers for Disease Control and Prevention (CDC) and Agency for Toxic Substances and Disease Registry (ATSDR) for an ongoing PFAS multi-site health effects study and PFAS exposure assessments, pursuant to the FY2018 NDAA.[243]
- Section 343 required DOD to establish a temporary moratorium, to begin no later than 120 days after enactment, on the use of incineration to dispose of AFFF and certain other PFAS-containing materials until DOD issues guidelines for implementing incineration criteria and EPA interim guidance on the destruction and disposal of PFAS directed in the FY2020 NDAA,[244] or if earlier, until EPA promulgates a final rule for the destruction and disposal of PFAS.
- Section 344 required DOD to complete a review, within 180 days of enactment, of its practices for the prevention and mitigation of spills of AFFF, and issue guidance within 90 days after this review to establish best practices.
- Section 345 required public disclosure of DOD testing results for PFAS in contaminated water, pursuant to the FY2020 NDAA.[245]
- Section 346 required DOD to complete a review, within 180 days of enactment, of its mutual support agreements with other entities that provide fire suppression services at DOD facilities, and issue guidance within 90 days after completion of this review to establish best practices to prevent and mitigate spills of AFFF.
- Section 347 directed the Government Accountability Office (GAO) to conduct a study of certain materials procured by DOD that contain various PFAS.
- Section 348 required DOD to report, within 270 days of enactment, on the estimated schedule and costs of remediating PFAS releases at DOD and National Guard facilities, and Formerly Used Defense Sites (FUDS), in the United States at which DOD identified PFAS releases as of March 31, 2021.
- Section 349 required DOD to report, within 60 days of enactment, on the status of investigating and remediating PFAS releases at 50 DOD and National Guard facilities in the United States listed in that provision.
- Section 4201 authorized $20 million for continued research and development of AFFF alternatives and AFFF remediation and disposal technologies, and an additional $25 million for other PFAS remediation and disposal technologies.
- Section 4301 authorized $357.1 million in the DOD Environmental Restoration accounts for the continuing investigation and remediation of PFAS releases ($175.0 million for the Air Force, $98.8 million for the Army, $167.3 million for the Navy, and $74.0 million for FUDS).

[242] Preliminary Assessments and Site Inspections are the initial steps of the site investigation phase for remedial actions under CERCLA, pursuant to 40 C.F.R. §300.420.

[243] P.L. 115-91, §316, as amended.

[244] P.L. 116-92, §330 (incineration criteria) and §7361 (EPA guidelines).

[245] P.L. 116-92, §331.

In the debate prior to enactment, DOD procurement of PFAS-containing materials also received attention. The FY2021 NDAA prohibited DOD, as of April 1, 2023, from procuring certain items containing PFOA or PFOS (nonstick cookware, cooking utensils, and upholstered furniture, carpets, and rugs that have been treated with stain-resistant coatings).[246] The House-passed FY2022 NDAA (section 317) would have broadened this prohibition to include additional items and applied it to any PFAS.[247] The Administration expressed concern with this broader House provision and argued in part that it "would prohibit DOD from procuring a wide range of items that may contain PFAS" and, if implemented, "would not be feasible for DOD to test all of these items to determine if they contain PFAS."[248] The enacted FY2022 NDAA did not include this House provision and instead directed GAO in Section 347 to conduct a study as noted above, and provide a briefing to HASC and SASC on DOD procurement of certain items containing PFAS.

In lieu of certain other provisions that were not adopted, the explanatory statement for the FY2022 NDAA also included language directing DOD to continue research of phytoremediation and other remediation technologies, and to report to HASC and SASC on the acquisition and remediation of off-base properties contaminated with PFOA or PFOS from Air Force activities.[249] The FY2020 NDAA authorized the criteria for these property acquisitions.[250]

PFAS Contamination

For additional information about PFAS and related issues, see CRS Report R45986, *Federal Role in Responding to Potential Risks of Per- and Polyfluoroalkyl Substances (PFAS)*, coordinated by David M. Bearden; CRS Report R45793, *PFAS and Drinking Water: Selected EPA and Congressional Actions*, by Elena H. Humphreys; and CRS Report R45998, *Contaminants of Emerging Concern Under the Clean Water Act*, by Laura Gatz.

Exemption for Burn Pit Use in U.S. Military Contingency Operations[251]

Congress has included provisions in multiple NDAAs to address the use of "burn pits" to manage waste during U.S. military contingency operations in foreign nations,[252] and to assess potential health effects that may be associated with burn pit emissions. The FY2022 NDAA authorized additional criteria for the continued use of burn pits.[253]

As amended, the FY2010 NDAA restricted the use of burn pits to manage certain "covered" wastes during U.S. military contingency operations in foreign nations, unless waste disposal

[246] P.L. 116-283, §333.

[247] H.R. 4350, §317.

[248] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[249] *Congressional Record*, Vol. 167, No. 211, December 7, 2021, Book II, p. H7278.

[250] P.L. 116-92, §344.

[251] David M. Bearden, Specialist in Environmental Policy, authored this section. For information on DOD burn pit use and related issues, contact David M. Bearden at 7-2390, dbearden@crs.loc.gov.

[252] For example, see National Academies of Sciences, Engineering, and Medicine, *Respiratory Health Effects of Airborne Hazards Exposures in the Southwest Asia Theater of Military Operations*, 2020.

[253] For many years, DOD has managed wastes during combat or other field deployments in foreign nations through the use of open burning in pits. Although open burning can offer a practical and efficient method to reduce the volume of wastes for disposal, the combustion process may emit pollutants that could present health risks from inhalation or other exposures. Concern about the use of burn pits has heightened over the past two decades during operations in Iraq, Afghanistan, and certain other nations. Studies of potential health risks that may be associated with burn pit emissions have been ongoing.

alternatives are infeasible.[254] In an April 2019 report, DOD identified the continued use of burn pits at nine locations (seven in Syria, one in Afghanistan, and one in Egypt).[255] In this report, DOD observed that burn pits may continue to be the only feasible alternative to manage wastes at some contingency locations in the future, given available technologies and the practical feasibility of field conditions. The FY2020 NDAA required DOD to develop a plan for phasing out the use of burn pits at the nine locations identified in the April 2019 report, and to identify all locations where burn pits have been used during U.S. military operations.[256]

Section 316 of the FY2022 NDAA amended the FY2010 NDAA authorizing the Secretary of Defense to exempt a contingency location in a foreign nation from the general prohibition on the use of burn pits if doing so "is in the paramount interest of the United States." Otherwise, the general prohibition that has been in place would continue to apply under which burn pits may be used at a contingency location if alternative waste disposal methods are infeasible. If the new exemption is used, the Secretary is required to report to HASC and SASC to identify the location, size and duration of burn pit operations, number of personnel assigned to the location, efforts to mitigate potential health risks, and the need and rationale for the exemption. After signing the final bill, President Biden noted his opposition to the use of burn pits and requested that the Secretary seek presidential approval prior to exercising the exemption authority.[257]

The enacted exemption is a modified version of the SASC-reported bill (Section 314)[258] with a reporting requirement added. The House-passed bill (Section 314) would have repealed the general prohibition and exceptions for the use of burn pits in the FY2010 NDAA, and more broadly prohibited the use of burn pits unless the President exempted a location if doing so was in the "paramount interest of the United States."[259] This provision also included reporting requirements for such an exemption that are similar to those added in the final bill. Another provision in the House-passed bill (Section 323) would have required DOD to include a budget line item for alternatives to burn pits in its annual budget requests, which was not adopted.[260]

The FY2022 NDAA included two other provisions (Section 725 and Section 6602) related to burn pits. Section 725 required the Secretary of Defense to provide mandatory training to medical providers of DOD on potential health effects that may be associated with exposures to burn pit emissions.[261] Section 6602 required the Secretary of Veterans Affairs to add Egypt and Syria to the scope of the Airborne Hazards and Open Burn Pit Registry.[262]

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[254] P.L. 111-84, Section 317, as amended (codified at 10 U.S.C. §2701 note), including the definition of "covered waste" that identifies which wastes are prohibited from disposal through open burning unless alternatives are infeasible.

[255] DOD, *Open Burn Pit Report to Congress*, April 2019, at https://www.acq.osd.mil/eie/Downloads/Congress/Open%20Burn%20Pit%20Report-2019.pdf.

[256] P.L. 116-92, §333-334.

[257] White House, "Statement by the President on S. 1605, the National Defense Authorization Act for Fiscal Year 2022," press release, December 27, 2021, at https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/27/statement-by-the-president-on-s-1605-the-national-defense-authorization-act-for-fiscal-year-2022/.

[258] S. 2792, §314.

[259] H.R. 4350, §314.

[260] H.R. 4350, §323.

[261] The House-passed bill (H.R. 4350, §719) and SASC-reported bill (S. 2792, §724) included identical provisions.

[262] This provision originated in the House-passed bill (H.R. 4350, §6409).

Fuel Tank Leaks at the Red Hill Bulk Fuel Storage Facility[263]

Congress has included bill or report language in each NDAA for the past eight fiscal years from FY2015 through FY2022 to address fuel tank leaks, environmental contamination, and impacts on drinking water sources at the Red Hill Bulk Fuel Storage Facility in Hawaii. The U.S. Navy and Defense Logistics Agency administer this facility as part of Joint Base Pearl Harbor-Hickam. The Red Hill facility has supplied fuel for the Pacific Fleet since the World War II era.[264]

The U.S. Environmental Protection Agency (EPA) and the Department of Health of the State of Hawaii entered into an Administrative Order on Consent with the U.S. Navy and Defense Logistics Agency for investigating and remediating contamination from fuel tank leaks at the Red Hill facility in January 2014.[265] The parties entered into this Consent Order pursuant to the Solid Waste Disposal Act (often referred to as the Resource Conservation and Recovery Act or RCRA)[266] and applicable state law. RCRA Subtitle I applies to the regulation of underground storage tanks and the remediation of petroleum contamination from tank leaks. Potential health risks associated with more recent fuel tank leaks at the Red Hill facility discovered in November 2021 led to an interruption of the water supplies at the facility and temporary relocation of affected individuals.[267] Contamination from these leaks would add to existing challenges from past leaks.

Section 318 of the FY2022 NDAA included a modified provision from the House-passed bill (Section 331)[268] directing the Naval Facilities Engineering Command to take the following actions at the Red Hill facility to address the fuel tank leaks:

- an independent inspection of the "pipeline system, supporting infrastructure, and appurtenances, including valves and any other corrosion prone equipment"; and
- a life-cycle sustainment plan, which shall consider the "current condition and service life of the tanks, pipeline system, and support equipment."

Section 318 also required the Secretary of Defense to assess possible alternatives to the Red Hill facility for bulk fuel storage, including consideration of at least three locations outside of Hawaii. Section 318 required this alternatives assessment to be based on needs to support the fuel requirements of the Pacific Fleet, the costs and timeline for recapitalization of the Red Hill facility to attain certain industry inspection standards specified in Section 318, and the costs and timeline to establish an alternative location for secure bulk fuel storage.

Within one year of enactment, Section 318 required the Secretary of Defense to submit a report to the congressional defense committees on the independent inspection, life-cycle sustainment plan,

[263] David M. Bearden, Specialist in Environmental Policy, authored this section. For information on fuel tank leaks at the Red Hill facility and related issues, contact David M. Bearden at 7-2390, dbearden@crs.loc.gov.

[264] For information on the operational history of the Red Hill facility, see Commander Navy Region Hawaii, "About Red Hill," at https://www.cnic.navy.mil/regions/cnrh/om/red-hill-tank/about-red-hill.html.

[265] For the Administrative Order on Consent and supporting documents, see U.S. EPA, "Red Hill Administrative Order on Consent," at https://www.epa.gov/red-hill/red-hill-administrative-order-consent.

[266] 42 U.S.C. §§6901 et seq.

[267] For more information, see: (1) U.S. Navy Joint Base Pearl Harbor-Hickam, "JBPHH Water Updates," at https://www.cpf.navy.mil/JBPHH-Water-Updates; (2) U.S. EPA, "Drinking Water Emergency at Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii," at https://www.epa.gov/red-hill/drinking-water-emergency-joint-base-pearl-harbor-hickam-honolulu-hawaii-november-2021; and (3) Hawaii Department of Health, "DOH Investigation into Navy Water System," at https://health.hawaii.gov/about/navy-water-system-quality-updates.

[268] H.R. 4350, §331.

alternatives assessment, and "options on improving the security and maintenance of the Red Hill Bulk Fuel Storage Facility."

Subsequent to enactment of the FY2022 NDAA, Secretary of Defense Austin announced the planned closure of the Red Hill facility in a memorandum issued on March 7, 2022, outlining certain conditions for the closure decision.[269] The decommissioning of the fuel tanks, and investigation and remediation of environmental contamination from the tank leaks, would be subject to RCRA Subtitle I and applicable state law.

Responsibility and Strategy for Global Bulk Fuel Management

The House-passed NDAA included a provision (Section 342) that would have required the Secretary of Defense to designate a single combatant command to be responsible for global bulk fuel management and delivery.[270] The provision also would have required the combatant commander of the so-designated command to submit a strategy on the matter to the congressional defense committees. The Biden Administration "strongly" opposed the provision, arguing in part that it would "not address the challenges posed by the degraded availability and survivability of assets supporting the distribution of fuel to dispersed and austere operating locations and the need for rapid decision-making in support of changing operational environments."[271] The enacted NDAA included a provision (Section 352) that identified U.S. Transportation Command (TRANSCOM) as the entity responsible for the department's management and delivery of bulk fuel on a global basis and required the TRANSCOM commander to prepare and submit the strategy document.[272]

CRS Products on Military Logistics

For more information on military logistics, see CRS Video WVB00325, *Defense Logistics 101*; CRS In Focus IF11543, *Defense Primer: The Defense Logistics Agency*; and CRS In Focus IF11479, *Defense Primer: United States Transportation Command*.

Military Personnel (MILPERS) and Related Matters

The NDAA typically authorizes military end-strengths for DOD components and appropriations for Military Personnel (MILPERs) compensation in Title IV of Division A.[273] MILPERS accounts fund cash compensation for military personnel, including basic pay, housing allowances, and special pays and bonuses for which some personnel are eligible.[274] MILPERS accounts also fund deferred (i.e., post-retirement) compensation—including military retired pay, Thrift Savings Plan

[269] DOD, "Statement by Secretary of Defense Lloyd J. Austin III on the Closure of the Red Hill Bulk Fuel Storage Facility," March 7, 2022, at https://www.defense.gov/News/Releases/Release/Article/2957825/statement-by-secretary-of-defense-lloyd-j-austin-iii-on-the-closure-of-the-red/.

[270] H.R. 4350, §342.

[271] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[272] 135 Stat. 1653; 10 U.S.C. §2927.

[273] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7363.

[274] For additional background and analysis, see CRS Report R46965, *The Department of Defense (DOD) Budget: An Orientation*.

contributions, and the retiree health care plan known as TRICARE for Life—as well as permanent change of station travel and other expenses.[275]

President's Budget Request

The FY2022 President's budget requested $167.3 billion in discretionary funding for the department's MILPERS accounts—$5 billion (3%) more than the enacted FY2021 level.[276] In a memorandum to DOD employees, Defense Secretary Austin described "taking care of our people" as a key priority.[277] In an overview of the FY2022 budget request, DOD stated, "As the Department focuses on long-term structural reform to divest of outdated activities and lower priority programs to provide the warfighters more of what they need to deter, fight, and win in today's complex security environment, it must efficiently manage its Total Force of active and reserve military personnel, government civilian personnel, and contracted services."[278]

House-Passed NDAA

The House-passed NDAA would have authorized $166.9 billion for MILPERS activities—effectively flat from the request ($0.4 billion, or 0.2%, less than the request).[279] The legislation would have authorized $74 million in increases to the request, mostly for "manpower costs associated with retaining two cruisers."[280] The net effect of these increases would have been offset by a decrease of $500 million due to "historical underexecution,"[281] which generally refers to past spending that was lower than projected.[282]

SASC-Reported NDAA

The SASC-reported NDAA would have authorized $166.8 billion for MILPERS activities—effectively flat from the request ($0.5 billion, or 0.3%, less than the request).[283] The legislation would have authorized $454 million in increases to the request, including for Army reserve

[275] Funding tables in reports accompanying the NDAA typically include amounts for the Medicare Eligible Retiree Health Care Fund to pay for the TRICARE for Life medical insurance program for certain military retirees. Discretionary funding for TRICARE for Life is not provided by the annual defense appropriations act but rather is automatically appropriated each year on the basis of permanent law (10 U.S.C. §§1111-1117).

[276] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. A-1.

[277] Memorandum from Secretary of Defense Lloyd J. Austin III to DOD employees, "Message to the Force," March 4, 2021, p. 1.

[278] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. 5-1.

[279] CRS analysis of H.Rept. 117-118, p. 346, accompanying H.R. 4350; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[280] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7434.

[281] Ibid.

[282] For more information on this term and others, see Mark Cancian, "Congress Traded Operations & Maintenance For Modernization In 19 Appropriations," *Breaking Defense*, October 11, 2018, at https://breakingdefense.com/2018/10/congress-traded-om-for-rdte-in-19-approps-bill/.

[283] CRS analysis of S.Rept. 117-39, p. 379; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7434.

component homeland security operations and other unfunded priorities.[284] The net effect of these increases would have been offset by $950.7 million in decreases due to "[m]ilitary personnel historical underexecution."[285]

Enacted NDAA

The enacted NDAA authorized $166.9 billion for MILPERS activities—effectively flat from the request ($0.4 billion, or 0.2% less than the request).[286] The legislation authorized $147 million in increases to the request, mostly for active-duty maintainers of A-10 close air support and F-35 fighter aircraft, and for manpower costs associated with retaining two Navy cruisers. The net effect of these increases was offset by $527.7 million in decreases due to "[h]istorical underexecution."[287] See **Table 9**.

Table 9. Summary of Military Personnel Authorizations in FY2022 NDAA

(in billions of dollars)

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized-Request)
Military Personnel Appropriations	$157.95	$157.52	$157.45	$157.57	-0.2%
Medicare-Eligible Retiree Health Fund Contributions	$9.34	$9.34	$9.34	$9.34	0.0%
Total	**$167.29**	**$166.86**	**$166.79**	**$166.9**	**-0.2%**

Source: CRS analysis of funding tables in H.Rept. 117-118, p. 347; S.Rept. 117-39, p. 379, 476-505; and explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7434.

Note: Totals for request and authorized amounts from explanatory statement; totals for House-passed and SASC-reported from committee reports. Totals may not sum due to rounding. Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts.

Military End-Strength

The FY2022 President's budget requested a military end-strength of 2.1 million personnel, including approximately 1.35 million personnel in the active components and about 806,000 personnel in the reserve components—5,400 fewer personnel than the projected FY2021 level (but with additional active-duty personnel in the Space Force).[288] According to DOD, the

[284] For more information, see CRS In Focus IF11964, *Defense Primer: Department of Defense Unfunded Priorities*.

[285] CRS analysis of S.Rept. 117-39, p. 379; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7434.

[286] CRS analysis of the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7434.

[287] Ibid.

[288] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. A-4.

requested reduction was "a function of the divestment of outdated platforms across multiple Services and components (e.g., older F-16s, Landing Ship Docks, tank companies, and Helicopter Sea Combat Squadrons) in order to invest in future capabilities."[289] The House-passed NDAA would have authorized the requested end-strength levels, while the SASC-reported NDAA would have authorized an increase of 920 personnel to the Air Force's active component end-strength. The enacted NDAA authorized an increase of 1,640 personnel to requested active component end-strength levels, including an increase of 920 personnel to the Air Force's end-strength and an increase of 720 personnel to the Navy's end-strength. See **Table 10**.

Table 10. Military End-Strengths Authorized in the FY2022 NDAA

(number of personnel)

Component	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)
Army	485,000	485,000	485,000	485,000
Navy	346,200	346,200	346,200	346,920
Marine Corps	178,500	178,500	178,500	178,500
Air Force	328,300	328,300	329,220	329,220
Space Force	8,400	8,400	8,400	8,400
Subtotal, Active Components	***1,346,400***	***1,346,400***	***1,347,320***	***1,348,040***
Army National Guard	336,000	336,000	336,000	336,000
Army Reserve	189,500	189,500	189,500	189,500
Navy Reserve	58,600	58,600	58,600	58,600
Marine Corps Reserve	36,800	36,800	36,800	36,800
Air National Guard	108,300	108,300	108,300	108,300
Air Force Reserve	70,300	70,300	70,300	70,300
Coast Guard Reserve	7,000	7,000	7,000	7,000
Subtotal, Reserve Components	***806,500***	***806,500***	***806,500***	***806,500***
Total	**2,152,900**	**2,152,900**	**2,153,820**	**2,154,540**

Source: CRS analysis of H.R. 4350 (§401 and §411), S. 2792 (§401 and §411), and P.L. 117-81 (§401 and §411).

Note: The Coast Guard is part of the Department of Homeland Security.

CRS Products on Military End-Strengths

For additional background and analysis on military end-strengths, see CRS Insight IN11857, *FY2022 NDAA: Active Component End-Strength*; CRS Report R43808, *Army Active Component (AC)/Reserve Component (RC) Force Mix: Considerations and Options for Congress*; and CRS Report R44612, *How Big Should the Army Be? Considerations for Congress*.

[289] Ibid., p. 5-2.

Military Pay Raise

Title 37, Section 1009, of the *U.S. Code* provides a permanent formula for an automatic annual increase in basic pay based on the annual increase in the Employment Cost Index (ECI). The statutory formula relies on the ECI for wages and salaries of private industry workers based on surveys conducted by the Bureau of Labor Statistics. The FY2022 President's budget requested a 2.7% increase in basic pay, in line with the formula in current law.[290] The House-passed NDAA, the SASC-reported NDAA, and the enacted NDAA did not contain provisions specifying the increase in basic pay, leaving the 2.7% automatic adjustment in place.[291]

CRS Products on the Military Pay Raise

For additional background and analysis on the military pay raise, see CRS In Focus IF10260, *Defense Primer: Military Pay Raise*; CRS Video WVB00429, *Pay and Allowances of the Armed Forces*; and CRS Report RL33446, *Military Pay: Key Questions and Answers*.

Sexual Assault in the Military

In July 2021, DOD published recommendations of the Independent Review Commission on Sexual Assault in the Military.[292] Among the 18 key recommendations was a proposal to "[c]reate the Office of the Special Victim Prosecutor in the Office of the Secretary of Defense (OSD) and shift legal decisions about prosecution of special victim cases out of the chain of command."[293] The House-passed NDAA included multiple provisions related to the commission's recommendations.[294] Section 532 of the House-passed NDAA would have required each service Secretary to appoint a special victim prosecutor at the rank of O-6 and assistant special victim prosecutors as appropriate.[295] The SASC-reported NDAA included similar provisions related to the commission's recommendations.[296] Section 533 of the SASC-reported NDAA would have required each military department Secretary to appoint a lead special victim prosecutor for each service.[297] The enacted NDAA included an amended version of the SASC provision (§532) that "would clarify that the lead special trial counsel be in a grade of O-7 or above, and that the lead special trial counsel report directly to the Secretary concerned, without intervening authority," among other provisions.[298]

CRS Products on Military Sexual Assault and Justice Reform

[290] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. 5-1.

[291] H.Rept. 117-118, p. 546; SASC, "Executive Summary of the National Defense Authorization Act for Fiscal Year 2022," press release, July 22, 2021, p. 2; and HASC, "Final Text Summary of the National Defense Authorization Act for Fiscal Year 2022," press release, December 6, 2021, p. 1.

[292] DOD, *Hard Truths and the Duty to Change: Recommendations from the Independent Review Commission on Sexual Assault in the Military*, July 2, 2021, at https://media.defense.gov/2021/Jul/02/2002755437/-1/-1/0/IRC-FULL-REPORT-FINAL-1923-7-1-21.PDF/IRC-FULL-REPORT-FINAL-1923-7-1-21.PDF.

[293] Ibid., p. 7.

[294] H.R. 4350, Title V, Subtitle D.

[295] Ibid., §532.

[296] S. 2792, title V, subtitles C and D.

[297] Ibid., §533.

[298] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7284.

For additional background and analysis on military sexual assault and justice reform, see CRS Report R46940, *Military Justice Disposition Delimitation Legislation in the 117th Congress*; CRS Insight IN11680, *Sexual Assault, the Military Justice System and Commanders' Authority: Recent Developments*; CRS Insight IN11787, *Military Criminal Justice System*, by Alan Ott; and CRS Report R44944, *Military Sexual Assault: A Framework for Congressional Oversight.*

Requiring Women to Register for the Draft

The House-passed NDAA included a provision (Section 513) that would have required women to register for the draft and made other changes to the Military Selective Service Act.[299] The SASC-reported NDAA included a similar provision (Section 511).[300] The enacted NDAA did not include either provision. Some news organizations reported that lawmakers dropped the language as part of a negotiation to adopt military justice reform.[301]

CRS Products on Selective Service

For additional background and analysis on selective service, see CRS Insight IN11780, *FY2022 NDAA: Selective Service and Draft Registration* and CRS Report R44452, *The Selective Service System and Draft Registration: Issues for Congress*.

Extremism in the Military

The House-passed NDAA included multiple provisions related to servicemember support for or participation in extremist activities. One of the provisions (Section 525) would have created a punitive article on violent extremism, among other requirements.[302] The SASC-reported NDAA included a provision (Section 527) that would have required the Defense Secretary to provide a report to HASC and SASC with recommendations for establishing a separate punitive article in the Uniform Code of Military Justice on violent extremism.[303] The enacted NDAA included the SASC provision (Section 549M).[304]

CRS Products on Extremism in the Military

For additional background and analysis on extremism in the military, see CRS Insight IN11779, *FY2022 NDAA: Extremism in the Military* and CRS Insight IN11086, *Military Personnel and Extremism: Law, Policy, and Considerations for Congress*.

Defense Health Program and Other Matters

The NDAA typically authorizes appropriations for the Defense Health Program, DOD working capital funds, and certain other activities (i.e., destruction of chemical agents and munitions, drug interdiction and counterdrug activities, and the Office of the Inspector General) in Title XIV of

[299] H.R. 4350, §513; 50 U.S.C. §3801 et seq.

[300] S. 2792, §511.

[301] See, for example, Connor O'Brien, "Lawmakers drop proposal to add women to the draft as defense bill headaches mount," *Politico*, December 6, 2021, at https://www.politico.com/news/2021/12/06/ndaa-women-draft-dropped-523829.

[302] H.R. 4350, §§525, 529A.

[303] S. 2792, §527.

[304] 135 Stat. 1733.

the legislation.[305] The Defense Health Program is part of a system that serves 9.6 million eligible beneficiaries including servicemembers, retirees, and dependents—making it one of the largest healthcare institutions in the country.[306] In general, working capital funds are intended to provide price stability for budgeting purposes and support business-like activities of DOD components (e.g., bulk fuel purchases).[307] While these activities are typically funded in DOD Operation and Maintenance (O&M) accounts, they can include Procurement and Research, Development, Test, and Evaluation (RDT&E) funding and are typically addressed in a separate title of the legislation.

President's Budget Request

The FY2022 President's budget requested $39.8 billion in discretionary funding for the department's Defense Health Program and certain other activities.[308] In an overview of the FY2022 budget request, DOD attributed the projected 5.3% increase in the broader medical budget in part to rising healthcare costs based on private-sector care requirements and additional funding for anticipated COVID-19 requirements."[309]

House-Passed NDAA

The House-passed NDAA would have authorized $41.06 billion in discretionary funding for the department's Defense Health Program and certain other activities—$1.2 billion, or 3%, more than the request.[310] The legislation would have authorized increases for COVID-related shortfalls ($600 million); infectious disease and vaccine research, pandemic response, and supply chain independence ($360 million); and anomalous health incidents ($115 million); among other activities.[311]

SASC-Reported NDAA

The SASC-reported NDAA would have authorized $39.9 billion in discretionary funding for the department's Defense Health Program and certain other activities—effectively flat from the request ($0.03 billion, or 0.1%, less than the request).[312]

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[305] For more information, see CRS Report R46965, *The Department of Defense (DOD) Budget: An Orientation*, by Pat Towell.

[306] For additional information, see CRS In Focus IF10530, *Defense Primer: Military Health System*.

[307] According to GAO, *A Glossary of Terms Used in the Federal Budget Process*, GAO-05-734SP Budget Glossary, p. 101, a working capital fund is a "type of intragovernmental revolving fund that operates as a self-supporting entity" and functions "entirely from the fees charged for the services they provide consistent with their statutory authority." For additional information, see CRS In Focus IF11233, *Defense Primer: Defense Working Capital Funds*.

[308] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7363.

[309] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. 5-5.

[310] CRS analysis of H.Rept. 117-118, p. 346, accompanying H.R. 4350; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7362.

[311] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7435.

[312] CRS analysis of S.Rept. 117-39, p. 379; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7434.

Enacted NDAA

The enacted NDAA authorized $39.7 billion in discretionary funding for the department's Defense Health Program and certain other activities —effectively flat from the request ($0.13 billion, or 0.3%, less than the request).[313] See **Table 9**.

Table 11. Summary of Other Authorizations in FY2022 NDAA

(in billions of dollars)

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized-Request)
Working Capital Fund, Army	$0.38	$0.38	$0.38	$0.38	0.0%
Working Capital Fund, Navy	$0.15	$0.15	$0.15	$0.15	0.0%
Working Capital Fund, Air Force	$0.08	$0.08	$0.08	$0.08	0.0%
Working Capital Fund, Defense-Wide	$0.13	$0.13	$0.13	$0.13	0.0%
Working Capital Fund, Defense Commissary Agency	$1.16	$1.16	$1.16	$1.16	0.0%
Chemical Agents and Munition Destruction	$1.09	$1.09	$1.09	$1.09	0.0%
Drug Interdiction and Counterdrug Activities	$0.82	$0.82	$0.82	$0.82	0.0%
Office of the Inspector General	$0.44	$0.44	$0.44	$0.44	0.0%
Defense Health Program	$35.59	$36.81	$35.62	$35.46	-0.4%
Total	**$39.85**	**$41.06**	**$39.88**	**$39.72**	**-0.3%**

Source: CRS analysis of explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7434-H7435.

Note: Totals may not sum due to rounding. Dollars rounded to nearest hundredth; percentages rounded to nearest tenth. The "% Change" column is the percentage change between authorized and requested amounts.

[313] CRS analysis of the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7434.

COVID-19 Vaccine Requirement

The House-passed NDAA included multiple provisions related to the vaccination of servicemembers against COVID-19. One of the provisions (Section 716) would have prohibited military leaders from taking certain adverse actions against servicemembers who did not follow orders to get the COVID–19 vaccine, for example, by only allowing such personnel to receive an "honorable discharge."[314] The Administration "strongly opposed" the House provision, arguing in part that it would "detract from readiness and limit a commander's options for enforcing good order and discipline. [315] The SASC-reported NDAA did not include a similar provision. The enacted NDAA included an amended version of the House provision (Section 736) to allow such personnel to receive an "honorable discharge" or a "general discharge under honorable conditions."[316]

CRS Product on COVID-19 Military Vaccinations

For additional information, see CRS Insight CRS Insight IN11842, *FY2022 NDAA: COVID-19 Vaccination-related Provisions*; CRS In Focus IF11816, *Defense Health Primer: Military Vaccinations*; and CRS Insight IN11764, *The Military's COVID-19 Vaccination Mandate*.

Anomalous Health Incidents ("Havana Syndrome")

The House-passed NDAA included multiple provisions related to "anomalous health incidents." Such incidents refer to instances in which U.S. government employees, particularly those overseas, report unexplained medical symptoms from sensory disturbances. The health effects, sometimes described as "Havana Syndrome," were first reported in 2016 by American personnel in Havana, Cuba. The House-passed NDAA would have authorized $115 million for healthcare related to anomalous health incidents.[317] The SASC-reported NDAA would have authorized $30 million for such care.[318] The enacted NDAA authorized $30 million for such care.[319]

CRS Products on Anomalous Health Incidents

For additional information, see CRS Insight IN11850, *FY2022 NDAA: Care for Anomalous Health Incident Victims*; and CRS Report R42107, *The Federal Employees' Compensation Act (FECA): Workers' Compensation for Federal Employees*.

Selected Budgetary and Acquisition Matters

Planning, Programming, Budgeting and Execution (PPBE) Commission

Congressional consideration of the FY2022 NDAA involved debate about the speed and effectiveness of the DOD's Planning, Programming, Budgeting, and Execution (PPBE)

[314] H.R. 4350, §513.

[315] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[316] 135 Stat. 1800; 10 U.S.C. §1161 note prec.

[317] H.Rept. 117-118, p. 480.

[318] S.Rept. 117-39, p. 512.

[319] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7435.

process.[320] PPBE is the department's annual process for allocating resources among the armed services, defense agencies, and other components based on strategic objectives.[321] Some observers have criticized the process as too slow and outdated, particularly for addressing the types of challenges posed by strategic competitors, such as China and Russia.[322] The House-passed NDAA included a provision (Section 1079) that would have established a "Defense Resource Budgeting and Allocation Commission to develop a consensus on an effective and strategic approach to Department of Defense resource budgeting and allocation, including by conducting an examination of the planning, programming, budgeting, and execution methodology of the Department; and by considering potential alternatives to such methodology to maximize the ability of the Department to equip itself in a timely manner to respond to current and emerging threats."[323] The SASC-reported NDAA included a similar provision (Section 1002) that would have established a "Commission on Planning, Programming, Budgeting, and Execution Reform tasked with providing an independent review and assessment of the PPBE process of the Department of Defense (DOD)."[324] The enacted FY2022 NDAA included an amended version of the SASC provision (Section 1004).[325] The legislation required the commission to compare the process "with similar processes of private industry, other Federal agencies, and other countries," assess the "efficacy and efficiency of all phases and aspects" of the process; and propose recommendations to improve the effectiveness of the process.[326] The enacted language also required the commission to issue an interim report by February 6, 2023, and a final report by September 1, 2023.[327]

The legislation also included other provisions related to the PPBE process, including requirements for the Secretary of Defense to establish a pilot program to identify ways to more quickly meet the operational needs of combatant commands (Section 871);[328] for the Secretary of Defense to establish pilot programs within the Strategic Capabilities Office to close "significant" capability gaps in theater (Section 872);[329] and for the DOD Comptroller to submit a plan to the

[320] See, for example, SASC, Hearings, "Planning, Programming, Budget, and Execution Process of the Department of Defense," March 18, 2021, at https://www.armed-services.senate.gov/hearings/21-03-18-planning-programming-budget-and-execution-process-of-the-department-of-defense.

[321] For additional information on the PPBE process, see CRS In Focus IF10429, *Defense Primer: Planning, Programming, Budgeting, and Execution (PPBE) Process* and CRS In Focus IF10428, *Intelligence Planning, Programming, Budgeting, and Evaluation (IPPBE) Process*.

[322] See, for example, Eric M. Lofgren, *The DoD Budget Process: The Next Frontier of Acquisition Reform*, George Mason University, School of Business, Center for Government Contracting, July 29, 2020, at https://business.gmu.edu/news/2021-10/no-5-dod-budget-process-next-frontier-acquisition-reform; Dan Patt and William Greenwalt, *Competing in Time: Ensuring Capability Advantage and Mission Success through Adaptable Resource Allocation*, The Hudson Institute, February 25, 2021, at https://www.hudson.org/research/16717-competing-in-time-ensuring-capability-advantage-and-mission-success-through-adaptable-resource-allocation; Thomas Spoehr and Frederico Bartels, *Reforming the Defense Department's Planning, Programming, Budgeting, and Execution Process*, The Heritage Foundation, January 14, 2022, at https://www.heritage.org/defense/commentary/reforming-the-defense-departments-planning-programming-budgeting-and-execution.

[323] H.R. 4350, §1079; and H.Rept. 117-118, p. 234.

[324] S. 2792, §1002; and S.Rept. 117-39, p. 227.

[325] 135 Stat. 1884; and explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7314.

[326] Ibid.

[327] Ibid.

[328] 135 Stat. 1855; and *Congressional Record*, December 7, 2021, p. H7308.

[329] 135 Stat. 1859.

congressional defense committees to consolidate the information technology systems used to manage data and support the process (Section 1003).[330]

Extension of Selected Acquisition Reports (SARs)

The House-passed NDAA included a provision (Section 815) that would have extended the requirement for the Secretary of Defense to submit reports, known as Selected Acquisition Reports (SARs), at the end of each fiscal-year quarter on major defense acquisition programs and any program in excess of $300 million.[331] SARs summarize the program's latest cost, schedule, and performance status. The SASC-reported NDAA included a similar provision (Section 854) that would have extended the SAR reporting requirement for two years through FY2023.[332] The SASC provision also would have required a demonstration of the replacement reporting system and a plan to implement such a system.[333] The enacted NDAA included an amended version (Section 805) of the SASC provision.[334]

Military Construction (MILCON) and Related Matters

The NDAA typically authorizes appropriations for DOD military construction projects in Division B of the legislation. In general, DOD military construction accounts fund military construction projects; major infrastructure improvements; land acquisition; construction and operation of military family housing; privatized housing through the Family Housing Improvement Fund and the Military Unaccompanied Housing Improvement Fund; construction and environmental cleanup projects required by the base closure and realignment commission (BRAC) process; and contributions to the North Atlantic Treaty Organization (NATO) Security Investment Program, which funds infrastructure projects and cost-sharing expenses for collective defense.[335]

President's Budget Request

The FY2022 President's budget requested $9.8 billion in military construction and related discretionary funding—$1.3 billion (15%) more than the enacted FY2021 level.[336] The request included $8.4 billion in military construction accounts and $1.4 billion in family housing accounts.[337] Among the largest requested stand-alone projects, in terms of dollar value, were: $250 million to build a dry dock addition at the Portsmouth Naval Shipyard in Kittery, Maine, for the maintenance and overhaul of the Navy's fleet of Virginia-class fast-attack submarines;[338]

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[330] 135 Stat. 1884; and explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7314.

[331] H.R. 4350, §815; and H.Rept. 117-118, p. 209.

[332] S. 2792, §854; and S.Rept. 117-39, p. 212.

[333] Ibid.

[334] 135 Stat. 1816; 10 U.S.C. §2432(j); and explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7303.

[335] For additional information on military construction funding, see CRS Report R46965, *The Department of Defense (DOD) Budget: An Orientation*. For more information on the military construction process, see CRS Report R44710, *Military Construction: Authorities, Process, and Frequently Asked Questions*.

[336] DOD, *Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, May 2021, Defense Budget Overview, United States Department of Defense Fiscal Year 2022 Budget Request*, p. A-1.

[337] Ibid.

[338] For more information on this project, see DOD, *Department of the Navy Fiscal Year (FY) 2022 Budget Estimates,*

$207.9 million to construct a maintenance hangar at Marine Corps Air Station Cherry Point, North Carolina, to support two squadrons of F-35 Lightning II stealth fighter aircraft scheduled to arrive at the installation in FY2024 and FY2025;[339] and, $168 million to construct a helicopter rescue operations maintenance hangar at Kadena Air Base in Japan to support missions of INDOPACOM and Pacific Air Forces.[340]

House-passed NDAA

The House-passed NDAA would have authorized $13.4 billion for military construction projects and related funding—$3.6 billion (36%) more than the request.[341] The House legislation would have authorized $4.8 billion in increases to the request (i.e., funding beyond the amounts for certain projects requested in the budget or for projects not requested in the budget).[342] Among these increases, the House bill would have authorized 21 earmarks, also known as congressionally directed spending or Community Project Funding items, totaling $370 million.[343] The net effect of these increases in the House legislation would have been offset by $1.2 billion in decreases to other programs.[344]

SASC-reported NDAA

The SASC-reported version of the bill would have authorized $12.7 billion in military construction projects and related funding—$2.9 billion (29%) more than the request.[345] The SASC legislation would have authorized $4.1 billion in increases to the request. Unlike the House version, the SASC report did not reference congressionally directed spending items.[346] The net effect of these increases in the SASC legislation would have been offset by $1.3 billion in decreases to other programs.

The White House opposed provisions in the House-passed and SASC-reported bills to realign military construction funding "from priority projects to other projects."[347] It also argued that

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Justification of Estimates, May 2021, Military Construction, Active Force (MCON) and Family Housing, pp. 43-50. For more information on the Virginia-class submarines, see CRS Report RL32418, *Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress*.

[339] For more information on this project, see DOD, Department of the Navy Fiscal Year (FY) 2022 Budget Estimates, Justification of Estimates, May 2021, Military Construction, Active Force (MCON) and Family Housing, pp. 69-74. For more information on the F-35 program, see CRS Report RL30563, *F-35 Joint Strike Fighter (JSF) Program*.

[340] DOD, *Department of the Air Force, Military Construction Programs, Fiscal Year (FY) 2022 Budget Estimates, Justification Data Submitted to Congress, May 2021*, pp. 195-202.

[341] CRS analysis of H.Rept. 117-118, p. 498, accompanying H.R. 4350; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7448.

[342] Ibid., pp. H7436-H7448.

[343] CRS analysis of H.Rept. 117-118, pp. 541-545. For more information on earmarks and congressionally directed spending items, see CRS Report R46722, *Community Project Funding: House Rules and Committee Protocols* and CRS Report RS22867, *Earmark Disclosure Rules in the Senate: Member and Committee Requirements*.

[344] CRS analysis of H.Rept. 117-118, pp. 541-545.

[345] CRS analysis of S.Rept. 117-39, p. 538; and the explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7448.

[346] SASC did not issue public guidance for congressionally directed spending items. The panel submitted internal guidance to Members for congressionally directed funding item requests related to military construction (MILCON) projects, in accordance with guidance released by the Chair of the Senate Appropriations Committee.

[347] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf; and

incrementally funding certain projects would require nearly $1 billion in additional funding to complete them.[348] Military construction programs have made regular use of incremental funding.

Enacted NDAA

The enacted NDAA included a Division B, the Military Construction Authorization Act for Fiscal Year 2022, which authorized $13.3 billion in military construction projects and related funding—$3.5 billion (36%) more than the request (see **Table 12**).[349]

Table 12. Summary of Military Construction Authorizations in FY2022 NDAA

(in billions of dollars)

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized -Request)
Military Construction, Army	$0.83	$1.48	$1.63	$1.73	107%
Military Construction, Navy	$2.37	$3.54	$3.70	$3.90	64%
Military Construction, Air Force	$2.10	$3.28	$2.33	$2.49	18%
Military Construction, Defense-Wide	$1.96	$2.09	$2.01	$2.03	4%
NATO Security Investment Program	$0.21	$0.21	$0.21	$0.21	0%
Military Construction, Army National Guard	$0.26	$0.33	$0.35	$0.39	52%
Military Construction, Army Reserve	$0.06	$0.15	$0.12	$0.12	90%
Military Construction, Navy Reserve	$0.07	$0.07	$0.07	$0.07	0%
Military Construction, Air National Guard	$0.20	$0.26	$0.36	$0.38	93%
Military Construction, Air Force Reserve	$0.08	$0.12	$0.16	$0.16	109%
Unaccompanied Housing Improvement Fund	<$0.01	<$0.01	<$0.01	<$0.01	0%
Base Realignment and Closure, Army	$0.07	$0.12	$0.07	$0.12	77%
Base Realignment and Closure, Navy	$0.11	$0.16	$0.11	$0.16	45%

White House, "Statement of Administration Policy, S. 2792 – National Defense Authorization Act for Fiscal Year 2022," November 17, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/11/S-2797-SAP.pdf.

[348] Ibid.

[349] CRS analysis of explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7436-H7448.

Account	FY2022 Request	House-passed (H.R. 4350)	SASC-reported (S. 2792)	Authorized (P.L. 117-81)	% Change (Authorized -Request)
Base Realignment and Closure, Air Force	$0.10	$0.15	$0.10	$0.10	0%
Base Realignment and Closure, Defense-Wide	<$0.01	<$0.01	<$0.01	<$0.01	0%
Military Construction, Subtotal	***$8.42***	***$11.95***	***$11.23***	***$11.86***	***41%***
Family Housing Construction, Army	$0.10	$0.15	$0.13	$0.16	62%
Family Housing Operation and Maintenance, Army	$0.39	$0.39	$0.39	$0.39	0%
Family Housing Construction, Navy	$0.08	$0.08	$0.08	$0.08	0%
Family Housing Operation and Maintenance, Navy	$0.36	$0.36	$0.36	$0.36	0%
Family Housing Construction, Air Force	$0.12	$0.12	$0.12	$0.12	0%
Family Housing Operation and Maintenance, Air Force	$0.33	$0.33	$0.33	$0.33	0%
Family Housing Operation and Maintenance, Defense-Wide	$0.05	$0.05	$0.05	$0.05	0%
Family Housing Improvement Fund	<$0.01	<$0.01	<$0.01	<$0.01	0%
Family Housing, Subtotal	***$1.42***	***$1.47***	***$1.45***	***$1.48***	***4%***
Total	**$9.85**	**$13.42**	**$12.68**	**$13.35**	**36%**

Source: CRS analysis of funding tables in H.Rept. 117-118, pp. 482-498; S.Rept. 117-39, pp. 516-538; and explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7436-H7448.

Note: Totals may not sum due to rounding. The "% Change" column is the percentage change between authorized and requested amounts.

Selected Increases and Decreases

The enacted NDAA authorized funding for virtually all of the Administration's requested projects, including the dry dock extension at the Portsmouth Navy Shipyard. The act authorized $4.9 billion in increases to the request.[350] Among these increases were all of the earmarks, or

[350] Ibid.

Community Project Funding items, in the House bill.[351] The net effect of these increases in the act was offset by $1.4 billion in decreases to other programs.[352] Among these decreases was a $150 million reduction to the requested level of funding for the maintenance hangar at Marine Corps Air Station Cherry Point.[353] In recommending a similar reduction in its version of the legislation, HASC noted its support for the project; however, it questioned the Navy's ability to fully expend the requested funding in FY2022.[354] Also among these decreases, the legislation did not authorize the $48.3 million requested to acquire land for a training range at the Naval Air Station Fallon, Nevada.[355]

The enacted NDAA also provisions that prohibited DOD from conducting another BRAC round (Section 2702);[356] mandated the public dissemination of information on Facilities Sustainment, Restoration, and Modernization (FSRM) projects costing more than $15 million (Section 2801);[357] continued various military housing reforms (Sections 2811-2822);[358] required GAO to report on DOD contracting to upgrade military installations in the United States (Section 2882);[359] and extended authorizations for certain military construction projects previously identified for a redirection of funding for the construction of barriers along the U.S.-Mexico border (see, for example, Section 2304).[360]

Incremental Funding for Large Projects

Congress has supported the use of incremental funding for certain types of military construction projects.[361] The explanatory statement accompanying the enacted FY2022 NDAA defended the authorization of incremental funding for large and complex military construction projects.[362] Doing so, it argued, "enables the Department to execute additional infrastructure projects in a fiscal year, enables continuous congressional oversight, serves to reduce the significant unobligated MILCON balance, and provides opportunities to adjust the authorization of appropriations level for projects should issues arise or requirements change over the course of construction."[363]

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[351] Ibid., pp. H7462-H7464.

[352] Ibid., pp. H7436-H7448.

[353] Ibid., p. H7438.

[354] H.Rept. 117-118, p. 304.

[355] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7438.

[356] 135 Stat. 2180.

[357] 135 Stat. 2184.

[358] 135 Stat. 2191.

[359] 135 Stat. 2216.

[360] See, for example, 135 Stat. 2169; and CRS Report R45937, *Military Funding for Southwest Border Barriers*, Table E-1.

[361] For more background and analysis, see CRS Report RL31404, *Defense Procurement: Full Funding Policy—Background, Issues, and Options for Congress*.

[362] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7352.

[363] Ibid.

Selected Projects in South Korea and Poland

The enacted NDAA authorized the Secretary of Defense to accept six military construction projects in South Korea with a combined value of $505.2 million and two military construction projects in Poland with a combined value of $37 million—projects that were paid for by the host governments pursuant to bilateral security agreements with the United States requiring in-kind contributions (Sections 2511-2512).[364]

MILCON Earmarks

For military construction accounts, the enacted NDAA authorized $339 million for 21 earmarks.[365] Projects included a wastewater treatment plant, new entrance road and gate complex, and a wellfield expansion, among others.

Prohibitions Related to Guantanamo Bay Detention Facility (GTMO)[366]

Beginning with the FY2011 NDAA, Congress has each year included a ban on the transfer of detainees from the detention facility at Naval Station Guantanamo Bay in Cuba (known as GTMO) to the United States and restrictions on transfers to other countries, as well as restrictions on constructing or modifying facilities within the United States to house GTMO detainees.[367] In the FY2016 NDAA, Congress added a ban on transferring detainees to certain countries.[368] In the FY2017 NDAA, Congress began to prohibit the use of funds for closure or realignment of GTMO.[369] These counterterrorism restrictions have varied over the years, but have been a consistent feature of NDAAs.

For FY2022, the House-passed NDAA included only a provision (Section 1023) in Title X, "General Provisions," that would have extended the prohibition on the use of funds to transfer detainees from GTMO to certain countries,[370] but would not have prohibited transfer to the United States. The SASC-reported NDAA included a similar provision (Section 1033),[371] but also included the panoply of other restrictions. The SASC legislation included provisions that would have extended prohibitions on the use of funds to transfer GTMO detainees to the United States (Section 1031), construct or modify facilities in the United States to house transferred GTMO detainees (Section 1032), and to close or abandon GTMO (Section 1034).[372] The Administration "strongly opposed" the provisions, arguing they would "interfere with the President's ability to determine the appropriate disposition of GTMO detainees and to make important foreign policy and national security determinations regarding whether and under what circumstances to transfer

[364] 135 Stat. 2176, 135 Stat. 2177.

[365] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, pp. H7462-H7463. (Note that certain Community Project Funding Items are repeated in the table.)

[366] This section was coordinated with Jennifer K. Elsea, Legislative Attorney.

[367] P.L. 111-383, §§1032-1034; 124 Stat. 4351-54.

[368] P.L. 114-92, §1033; 129 Stat. 968-69 (banning GTMO detainee transfers to Libya, Somalia, Syria, and Yemen).

[369] P.L. 114-328, §1035; 130 Stat. 2391.

[370] H.R. 4350, §1023. It would have left in place a permanent requirement for certification of certain criteria prior to transferring GTMO detainees to other countries. P.L. 114-92, §1034 (codified at 10 U.S.C. §801 note).

[371] S. 2792, §1033.

[372] Ibid., §§1031, 1032, 1034.

detainees to the custody or effective control of foreign countries."[373] The enacted NDAA included the SASC provisions. After signing the legislation, President Biden argued the provisions "unduly impair the ability of the executive branch to determine when and where to prosecute Guantánamo Bay detainees and where to send them upon release" and urged Congress to eliminate them "as soon as possible."[374]

CRS Products on Guantanamo Bay

For additional background and analysis on Naval Station Guantanamo Bay, see CRS Report R44137, *Naval Station Guantanamo Bay: History and Legal Issues Regarding Its Lease Agreements* and CRS Legal Sidebar LSB10654, *Due Process Rights for Guantanamo Detainees*.

Department of Energy and Related Programs

The House-passed NDAA included several provisions related to DOE defense-related programs and DOD strategic nuclear forces. The House-passed NDAA would have prohibited funding to extend the service life of the B83 gravity bomb, the largest thermonuclear bomb in the U.S. arsenal and carried by the B-2 stealth bomber.[375] The legislation also would have prohibited DOD from reducing the quantity of deployed Minuteman III intercontinental ballistic missiles (ICBMs) below 400 missiles, or their responsiveness or alert level.[376] The legislation also would have prohibited the Administrator of the DOE's National Nuclear Security Administration (NNSA) from reconverting or retiring W76-2 warheads, a low-yield variant of the W76-1 warhead and carried by a small portion of Trident D5 submarine-launched ballistic missiles (SLBM).[377] The Biden Administration opposed these provisions, arguing that they would "prejudge the outcome" of the Nuclear Posture Review then underway.[378] The SASC-reported version of the legislation would have prohibited DOD from reducing the quantity of deployed Minuteman III intercontinental ballistic missiles (ICBMs) below 400 missiles, or their responsiveness or alert level.[379] The Administration opposed this provision, arguing in part that it "would constrain the President's ability to propose the nuclear force he determines is necessary."[380] The enacted NDAA did not authorize funding to extend the service life of the B83 bomb;[381] prohibited the availability of funding for the NNSA to reconvert or retire a W76-2 warhead, unless the Administrator issues a waiver (Section 3120);[382] and prohibited DOD from reducing the quantity

[373] White House, "Statement of Administration Policy, S. 2792 – National Defense Authorization Act for Fiscal Year 2022," November 17, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/11/S-2797-SAP.pdf.

[374] White House, "Statement by the President on S. 1605, the National Defense Authorization Act for Fiscal Year 2022," press release, December 27, 2021, at https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/27/statement-by-the-president-on-s-1605-the-national-defense-authorization-act-for-fiscal-year-2022/.

[375] H.R. 4350, §4701.

[376] Ibid., §1626.

[377] Ibid., §3166.

[378] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf.

[379] S. 2792, §1543.

[380] White House, "Statement of Administration Policy, S. 2792 – National Defense Authorization Act for Fiscal Year 2022," November 17, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/11/S-2797-SAP.pdf.

[381] Explanatory statement accompanying the FY2022 NDAA (P.L. 117-81) in Part 2 of the House section of the *Congressional Record*, December 7, 2021, p. H7448.

[382] 135 Stat. 2228. The Under Secretary for Nuclear Security of the Department of Energy serves as the Administrator of the National Nuclear Security Administration.

of deployed ICBMs or their responsiveness or alert level, with certain exceptions (Section 1639).[383]

CRS Products on Strategic Nuclear Forces

For additional background and analysis on strategic nuclear forces, see CRS In Focus IF10519, *Defense Primer: Strategic Nuclear Forces*; CRS In Focus IF11681, *Defense Primer: Ground Based Strategic Deterrent (GBSD)*; and CRS Report RL33640, *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*.

Outlook

The congressional debate on the FY2022 NDAA and subsequent events raised a number of longer term issues that Congress may consider, among them were the following.

Russia's Invasion of Ukraine and U.S. Defense Budget Plans

The FY2022 NDAA authorized—and the Department of Defense Appropriations Act, 2022 (Division C of P.L. 117-103) provided—funding for activities intended to support the European Deterrence Initiative (EDI), including $300 million for the Ukraine Security Assistance Initiative, through which DOD provides lethal equipment and other support to the Ukrainian military and security forces.[384] On February 24, 2022, Russia launched a full-scale invasion of Ukraine.[385] As part of the Ukraine Supplemental Appropriations Act, 2022 (Division N of P.L. 117-103), Congress provided $13.6 billion in emergency funding for the situation in Ukraine and for related expenses, including $6.528 billion for DOD.[386] The DOD funding included $3.028 billion for European Command (EUCOM) operations mission support, the deployment of personnel to the region, and intelligence support, and $3.5 billion to replenish U.S. stocks of equipment sent to Ukraine.[387] To replenish U.S. and allied stocks of Stinger short-range air-defense (SHORAD) missile systems, some Members have urged DOD to accelerate development of an exportable version of the system.[388] Some observers have called for a higher level of U.S. defense spending as a share of U.S. GDP and deploying additional U.S. military personnel to Eastern Europe in

[383] 135 Stat. 2091.

[384] For additional information on the European Deterrence Initiative, see CRS In Focus IF10946, *The European Deterrence Initiative: A Budgetary Overview*. For additional information on Ukraine security assistance, see CRS In Focus IF12040, *U.S. Security Assistance to Ukraine*.

[385] For additional information, see CRS Insight IN11869, *Russia's Invasion of Ukraine: Overview of U.S. Sanctions and Other Responses*; and CRS Insight IN11872, *Russia's Invasion of Ukraine: Military and Intelligence Issues and Aspects*.

[386] P.L. 117-103, Division N, Title III.

[387] House Committee on Appropriations, "Summary of the Ukraine Supplemental," March 15, 2022, at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/Ukraine%20Supplemental%20Summary.pdf.

[388] HASC, "Smith, Rogers Urge Defense Department to Replenish U.S. and Allied Stocks of Stingers," press release, March 18, 2022, at https://armedservices.house.gov/press-releases?ID=3D96CE66-74C9-4CFC-B9CB-7A0769545A06.

response to Russia's invasion of Ukraine.[389] Others have argued for maintaining U.S. strategic focus on competition with China in the Indo-Pacific region.[390]

Inflation Assumptions in Defense Budget Plans[391]

Prices in the U.S. economy have continued to rise faster than projected for FY2022.[392] In May 2021, OMB estimated inflation in national defense prices at 1.9% for FY2022.[393] In February 2022, the Commerce Department's Bureau of Economic Analysis estimated such inflation at an annualized rate of 5.5% for the first quarter of FY2022.[394] In March 2022, OMB estimated such inflation at 4.0% for FY2022.[395] In March 2022, Chair of the Federal Reserve Jerome Powell said, "The expectation going into this year was that we would basically see inflation peaking in the first quarter, then maybe leveling out. That story has already fallen apart."[396] Higher inflation reduces the real purchasing power of a given level of defense spending. In January 2022, DOD Comptroller Michael McCord said, "Inflation is ... eating into our resources ... I have had to approve two increases in our FY2022 fuel prices—a first increase on October 1, 2021, and a second on January 1, 2022—to keep our working capital fund solvent in response to higher fuel prices. This has created a bill of $1.5 billion for the services in FY2022."[397] Some Members have called for increases to the defense budget in part to offset inflationary effects on DOD's purchasing power.[398] Other Members have proposed decreasing defense spending to focus on

[389] See, for example, Commission on Security and Cooperation in Europe (also known as the U.S. Helsinki Commission), "Doing More: Assessing Ukraine's Defensive Needs," March 18, 2022, at https://www.csce.gov/international-impact/events/doing-more.

[390] See, for example, Elbridge Colby and Oriana Skylar Mastro, "Ukraine Is a Distraction From Taiwan," *The Wall Street Journal*, February 13, 2022, at https://www.wsj.com/articles/ukraine-is-a-distraction-from-taiwan-russia-china-nato-global-powers-military-invasion-jinping-biden-putin-europe-11644781247.

[391] This section was coordinated with Marc Labonte, Specialist in Macroeconomic Policy.

[392] For additional background and analysis on this topic, see CRS Insight IN11832, *Breaking Down the U.S. Inflation Rate*; CRS Report R46890, *Inflation in the Wake of COVID-19*; and CRS Insight IN11868, *The Federal Reserve and Inflation*.

[393] GPO, *Budget of the United States Government*, Fiscal Year 2022, Table 10.1 - Gross Domestic Product and Deflators Used in the Historical Tables: 1940-2026, Composite Outlay Deflators for Total Defense, at https://www.govinfo.gov/content/pkg/BUDGET-2022-TAB/xls/BUDGET-2022-TAB-11-1.xlsx.

[394] Department of Commerce, Bureau of Economic Analysis, Table 1.1.7. Percent Change From Preceding Period in Prices for Gross Domestic Product," updated March 30, 2022, at https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=3&isuri=1&1921=survey&1903=11#reqid=19&step=3&isuri=1&1921=survey&1903=11.

[395] OMB, *Budget of the United States Government*, Fiscal Year 2023, Table 10.1 - Gross Domestic Product and Deflators Used in the Historical Tables: 1940-2027, at https://www.govinfo.gov/content/pkg/BUDGET-2023-TAB/xls/BUDGET-2023-TAB-11-1.xlsx.

[396] Jeanna Smialek, "Powell Says Fed Could Raise Rates More Quickly to Tame Inflation," *The New York Times*, March 21, 2022, at https://www.nytimes.com/2022/03/21/business/economy/powell-fed-inflation.html.

[397] House Committee on Appropriations Subcommittee on Defense, "Testimony of Michael McCord," January 12, 2022, at https://docs.house.gov/meetings/AP/AP02/20220112/114316/HHRG-117-AP02-Wstate-McCordM-20220112.pdf.

[398] Representative Mike Rogers, Senator Jim Inhofe et al., "GOP Armed Services Committee Members Press Biden to Boost Defense Budget by 5% Above Inflation," press release, March 23, 2022, at https://republicans-armedservices.house.gov/news/press-releases/gop-armed-services-committee-members-press-biden-boost-defense-budget-5-above.

domestic priorities, the COVID-19 pandemic, and climate change.[399] The Federal Reserve and most private sector forecasters have projected lower levels of inflation for FY2023.[400]

National Defense Strategy (NDS) Funding Priorities[401]

While the Trump Administration's 2018 National Defense Strategy did not address the question of pandemics or climate change as national security threats, the Biden Administration's Interim National Security Strategic Guidance (INSSG) referenced "pandemics and other biological risks, the escalating climate crisis, cyber and digital threats, international economic disruptions, [and] protracted humanitarian crises," among other threats.[402] On March 28, 2022, the Biden Administration transmitted the classified 2022 National Defense Strategy to Congress and published a two-page fact sheet on the guidance.[403] According to the 2022 NDS Fact Sheet, DOD "for the first time" incorporated other strategic reviews (i.e., Nuclear Posture Review and Missile Defense Review) into the National Defense Strategy.[404] The fact sheet described China as the "most consequential strategic competitor and the pacing challenge" for DOD and Russia as posing "acute threats, as illustrated by its brutal and unprovoked invasion of Ukraine."[405] The document also identified North Korea, Iran, and violent extremist organizations as threats—and global climate change and pandemics as "transboundary threats."[406] According to the fact sheet, DOD intends to advance its strategic goals in part through a concept known as *integrated deterrence* (i.e., integrating warfighting domains, other instruments of national power, and alliances and partners).[407] Among the potential issues for Congress are the budgetary implications of resourcing and executing the NDS.

Tradeoffs between Shorter- and Longer-Term Defense Budget Priorities

The annual DOD budget process provides an opportunity for DOD and Congress to make tradeoffs among funding for operating and maintaining the force; paying for personnel; procuring weapons, equipment, and services; researching and developing new technology; and carrying out other activities. The 2018 National Defense Strategy Commission recommended that Congress balance funding for DOD to emphasize readiness, capacity, and capability across the force.[408]

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[399] Letter from Representatives Mark Pocan and Barbara Lee to President Joseph R. Biden, Jr., March 18, 2022, at https://lee.house.gov/imo/media/doc/Pocan-Lee%20Defense%20Spending%20Reduction%20Letter%20to%20POTUS%203-18-2211.pdf.

[400] Board of Governors of the Federal Reserve System, Summary of Economic Projections, March 16, 2022 , at https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20220316.pdf; and Blue Chip, Economic Indicators, Vol. 47, No. 3, March 11, 2022.

[401] This section was coordinated with Kathleen J. McInnis, former CRS Specialist in International Security. For additional background and analysis on this topic, see CRS In Focus IF11798, *The Interim National Security Strategic Guidance* and CRS In Focus IF11525, *COVID-19: National Security and Defense Strategy*.

[402] White House, *Interim National Security Strategic Guidance*, March 2021, p. 7.

[403] DOD, "DoD Transmits 2022 National Defense Strategy," press release, March 28, 2022, at https://www.defense.gov/News/Releases/Release/Article/2980584/dod-transmits-2022-national-defense-strategy/.

[404] DOD, *Fact Sheet: 2022 National Defense Strategy*, March 28, 2022, at https://media.defense.gov/2022/Mar/28/2002964702/-1/-1/1/NDS-FACT-SHEET.PDF.

[405] Ibid., p. 1.

[406] Ibid.

[407] Ibid., p. 2.

[408] Eric Edelman and Gary Roughead (co-chairs), *Providing for the Common Defense: The Report of the National*

Others have used the terms "force structure" for capacity and "modernization" or "investment" for capability. Deputy Defense Secretary Kathleen H. Hicks has previously described these three elements as the "iron triangle of painful trade-offs."[409] The Biden Administration "strongly" opposed provisions in the FY2022 versions of the NDAA to authorize funding for "systems that limit DOD's ability to divest or retire lower priority platforms not relevant to tomorrow's battlefield."[410] As Congress reviews the FY2023 President's budget request, it may consider questions about the implications of funding existing systems on efforts to adopt emerging technologies. As the 2020 report by the HASC Future of Defense Task Force concluded, in part, "To remain competitive, the United States must prioritize the development of emerging technologies over fielding and maintaining legacy systems. This will require significant changes to the Pentagon's force structure, posture, operational plans, and acquisition system and must be complemented by a tough and fulsome review of legacy systems, platforms, and missions."[411]

Deficits and Long-Term Defense Budget Plans

The increase in the federal deficit in FY2020 and FY2021 associated with the economic disruption caused by the COVID-19 pandemic raised questions about whether pressure to reduce the gap between revenues and outlays will impact defense budget plans. While CBO has reported a smaller deficit so far in FY2022 than during the same period in the two prior fiscal years,[412] some Members have opposed legislation due to fiscal concerns over rising inflation and debt.[413] In recent decades, during periods of widening gaps between revenues and outlays, Congress has sometimes enacted legislation intended to reduce the deficit in part by limiting defense spending.[414]

Balancing Budgetary Oversight and Flexibility

The 2018 National Defense Strategy Commission made a series of recommendations related to defense budget flexibility. The commission recommended that Congress consider producing five-year defense budget agreements "to permit greater stability and flexibility for DOD" and to authorize the department to "expend Operations and Maintenance funds from any given fiscal year across that fiscal year and the subsequent one."[415] It also recommended Congress enact on-time annual appropriations and fund whole-of-government efforts to address the challenges posed

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Defense Strategy Commission, United States Institute of Peace, November 2018.

[409] Kathleen Hicks, *Defense Strategy and the Iron Triangle of Painful Tradeoffs*, Center for Strategic and International Studies, June 21, 2017, at https://defense360.csis.org/defense-strategy-and-the-iron-triangle-of-painful-tradeoffs/.

[410] White House, "Statement of Administration Policy, H.R. 4350 – National Defense Authorization Act for Fiscal Year 2022," September 21, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/09/SAP-HR-4350.pdf, p. 1; and White House, "Statement of Administration Policy, S. 2792 – National Defense Authorization Act for Fiscal Year 2022," November 17, 2021, at https://www.whitehouse.gov/wp-content/uploads/2021/11/S-2797-SAP.pdf, p. 1.

[411] HASC, *Future of Defense Task Force Report 2020*, September 29, 2020, p. 5, at https://armedservices.house.gov/_cache/files/2/6/26129500-d208-47ba-a9f7-25a8f82828b0/424EB2008281A3C79BA8C7EA71890AE9.future-of-defense-task-force-report.pdf.

[412] CBO, *Monthly Budget Review: February 2022*, March 8, 2022, at https://www.cbo.gov/system/files/2022-03/57841-MBR.pdf.

[413] See, for example, Senator Joe Manchin, "Why I Won't Support Spending Another $3.5 Trillion," *The Wall Street Journal*, September 2, 2021, at https://www.wsj.com/articles/manchin-pelosi-biden-3-5-trillion-reconciliation-government-spending-debt-deficit-inflation-11630605657.

[414] For more information, see the "Budgetary Context" section.

[415] Eric Edelman and Gary Roughead (co-chairs), *Providing for the Common Defense: The Report of the National Defense Strategy Commission*, United States Institute of Peace, November 2018.

by great power competition. An advisory panel, known as the Section 809 Panel and appointed to recommend defense acquisition reforms, has recommended increasing DOD reprogramming thresholds to allow the department to shift more funds within appropriations accounts. Congress has acted on a recommendation from the Defense Innovation Board, a DOD advisory board, to establish a multi-year appropriation for digital technology and has authorized and appropriated funding for Software and Digital Technology Pilot Programs. As previously discussed, Congress has established a commission to study and provide recommendations to improve the effectiveness of the DOD Planning, Programming, Budgeting, and Execution (PPBE) process.

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