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FY2018 National Defense Authorization Act

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Summary

This report discusses the FY2018 defense budget request and provides a summary of congressional action on the National Defense Authorization Act (NDAA) for fiscal year (FY) 2018. The annual NDAA authorizes appropriations for the Department of Defense (DOD) and defense-related nuclear energy programs of the Department of Energy and typically includes provisions affecting DOD policies or organization. Unlike an appropriations bill, the NDAA does not provide budget authority for government activities.

The Trump Administration's FY2018 budget request, released on May 23, 2017, included a total of \$677.1 billion for national defense-related activities of the federal government. Of that amount, \$667.6 billion was for discretionary funding that would be provided by an annual appropriations bill. Of that discretionary defense spending request, \$659.8 billion was for appropriation accounts for which authorization is provided in the annual NDAA.

The FY2018 request included \$595.3 billion in discretionary funding for the so-called DOD *base budget*, that is, funds intended to pay for activities that DOD and other national defense-related agencies would pursue even if U.S. forces were not engaged in contingency operations in Afghanistan, Iraq, Syria and elsewhere. The remainder of the request – \$64.6 billion – would fund the incremental cost of those ongoing operations, formally designated as Overseas Contingency Operations (OCO).

Congressional action on FY2018 defense funding reflects a running debate about the size of the defense budget given strategic environment and budgetary issues facing the United States. Annual limits on discretionary spending for defense and for non-defense federal activities, set by the Budget Control Act of 2011 (P.L. 112-25), remain in place through FY2021. If the amount appropriated for either category exceeds the relevant cap, it would trigger near-across-the-board reductions to a level allowed by the cap – a process called sequestration. Appropriations designated by Congress and the President as funding for OCO or for emergencies, are exempt from the caps.

For FY2018, the BCA limit on discretionary defense spending is \$549 billion. Even apart from the request for \$8.1 billion in defense-related discretionary appropriations that is outside the scope of the NDAA, the Administration's base budget defense request would exceed the BCA cap by more than \$46 billion, thus triggering sequestration.

The House passed H.R. 2810, the version of the FY2018 NDAA reported by the House Armed Services Committee, on July 14, 2017 by a vote of 344-81. On July 10, the Senate Armed Services Committee reported S. 1519, its version of the FY2018 bill. After substituting the text of S. 1519 for the House-passed text of H.R. 2810, the Senate passed an amended version of the latter bill on September 18 by a vote of 89-8.

In terms of the total amounts they would authorize (counting funds for base budget and OCO) the House and Senate proposals differ by slightly more than \$3 billion (less than 0.5%). The House bill's \$689.0 billion total would exceed the Administration's request by \$29.2 billion (about 4.4%), whereas the Senate proposal would exceed the request by \$32.3 billion or about 4.8%. The differences between the two bills reflect, in large part, differences in how the chambers categorize and allocate funding for base budget purposes while minimizing the amount by which base budget spending would exceed the BCA cap. Neither bill would modify the FY2018 BCA limit.

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Background

The annual National Defense Authorization Act (NDAA) provides authorization of appropriations for the Department of Defense (DOD), defense-related nuclear energy programs of the Department of Energy, and defense-related activities of other federal agencies such as the Federal Bureau of Investigation. In addition to authorizing appropriations, the NDAA establishes defense policies and restrictions, and addresses organizational administrative matters related to DOD.¹ Unlike an appropriations bill, the NDAA does not provide budget authority for government activities.

FY2018 NDAA: Keeping the Numbers Straight

Although the House and Senate each passed an FY2018 NDAA designated H.R. 2810, there were hundreds of differences between the two versions. Initially, H.R. 2810 was reported by the House Armed Services Committee and then was debated and amended on the floor of the House before the House passed it on July 14, 2017. The version of the FY2018 NDAA reported by the Senate Armed Services Committee was designated S. 1519. When the Senate began consideration of the NDAA, it called up the House passed bill (H.R. 2810) amended it by eliminating the text and substituting a modified version of the text of S. 1519 – the Senate committee-reported bill.

In this report, the versions of H.R. 2810 passed by the House and Senate will be referred to as the House bill and Senate bill, respectively. The version of H.R. 2810 reported by the House Armed Services Committee (HASC) and S. 1519 as reported by the Senate Armed Services Committee (SASC) will be referred to as the HASC version and the SASC version, respectively.

All dollar amounts cited in this report are in current dollars.

Congressional action on the FY2018 NDAA reflects a running debate about the size of the defense budget given the strategic environment and budgetary issues facing the United States. Annual limits on discretionary spending set by the Budget Control Act of 2011 (P.L. 112-25) remain in place through FY2021 and fundamentally shape congressional actions related to all federal spending including defense funding.²

Constrained by these limits, Congress and the Executive Branch face an increasingly complex and unpredictable international security environment, evidenced by a variety of threats to U.S. security interests including:

- Action around the globe by non-state, violent extremist organizations – such as the Islamic State of Iraq and Syria (ISIS) and al Qaida;
- Russian-backed proxy warfare in Ukraine and continued investments intended to undermine the NATO alliance;
- North Korean provocation evidenced by an “unprecedented” number of missile test launches and its “use of malicious cyber tools” to threaten and destabilize the region;³

¹ For more information see CRS In Focus IF10515, *Defense Primer: The NDAA Process*, by Valerie Heitshusen and Lynn M. Williams, and CRS In Focus IF10516, *Defense Primer: Navigating the NDAA*, by Lynn M. Williams and Valerie Heitshusen.

² For more information see, CRS Report R44039, *The Budget Control Act and the Defense Budget: Frequently Asked Questions*, by Lynn M. Williams.

³ General Joseph Dunford, Chairman of the Joint Chiefs of Staff, in testimony before the U.S. Congress, House Committee on Armed Services, *The Fiscal Year 2018 National Defense Authorization Budget Request from the Department of Defense*, 115th Cong., 1st sess., June 12, 2017.

- China’s expansion of its nuclear enterprise, its investments in power projection and continued *island building* in the South China Sea; and
- Iran’s continued efforts to support international terrorist organizations and establish regional dominance.⁴

The presidential transition following the November 2016 elections affected the timing of congressional consideration of the FY2018 defense budget request. The Trump Administration transmitted its budget request to Congress on May 23, 2017, 98 days after it was required by law.⁵ While incoming administrations have tended to submit their budget request later than the statutory deadlines, such delays compress congressional consideration of the request and may result in delays in committee actions and final passage of the authorization and appropriation bills.

The lack of several key strategy documents may also hinder congressional decision-making related to FY2018 defense funding. The Administration is in the process of updating the National Defense Strategy and is also conducting a Nuclear Posture Review. The Administration only recently completed a revision of U.S. strategy in Afghanistan.⁶ As a result, the Trump Administration’s budget request serves as a “placeholder” in many respects while Congress awaits the completion of these and other strategy assessments.⁷

The Budgetary Context

The Budget Control Act of 2011(BCA/P.L. 112-25), enacted August 2, 2011, contains several measures intended to reduce the budget deficit by \$2.1 trillion over the period FY2012-FY2021. Toward that goal, the legislation established annual limits that would reduce discretionary spending by approximately \$1.0 trillion, compared with projected spending over that period.

BCA established separate limits (commonly referred to as caps) on defense and nondefense discretionary budget authority that are enforced by a mechanism called *sequestration*.⁸ Sequestration provides for the automatic cancellation of previously enacted spending to reduce discretionary spending to the limits specified in the BCA. The defense limits apply to the national defense budget (function 050), but do not restrict amounts provided for “emergencies” or “Overseas Contingency Operations.”⁹

⁴ Ibid.

⁵ 31 U.S.C. 1305 requires the President to submit the budget of the U.S. Government for the following fiscal year no later than the first Monday in February. The three most recent transition-year budgets (FY1994, FY2002, and FY2010) were submitted 66, 63, and 98 days beyond the deadline. See CRS Report RS20752, *Submission of the President’s Budget in Transition Years*, by Michelle D. Christensen.

⁶ Department of Defense, “News Briefing on the President’s Fiscal Year 2018 Defense Budget,” press release, May 23, 2017, <https://www.defense.gov/News/Transcripts/Transcript-View/Article/1191830/departement-of-defense-news-briefing-on-the-presidents-fiscal-year-2018-defense/>; Aaron Mehta, “The Nuclear Posture Review is underway. Here’s what to look for.” *Defense News*, April 17, 2017, <https://www.defensenews.com/space/2017/04/17/the-nuclear-posture-review-is-underway-here-s-what-to-look-for/>; and The White House, “Remarks by President Trump on the Strategy in Afghanistan and South Asia,” press release, August 21, 2017, <https://www.whitehouse.gov/the-press-office/2017/08/21/remarks-president-trump-strategy-afghanistan-and-south-asia>.

⁷ Department of Defense, “News Briefing on the President’s Fiscal Year 2018 Defense Budget,” press release, May 23, 2017, <https://www.defense.gov/News/Transcripts/Transcript-View/Article/1191830/departement-of-defense-news-briefing-on-the-presidents-fiscal-year-2018-defense/>.

⁸ For more information see CRS Report R42972, *Sequestration as a Budget Enforcement Process: Frequently Asked Questions*, by Megan S. Lynch.

⁹For more information on federal budget functions see CRS In Focus IF10618, *Defense Primer: The National Defense* (continued...)

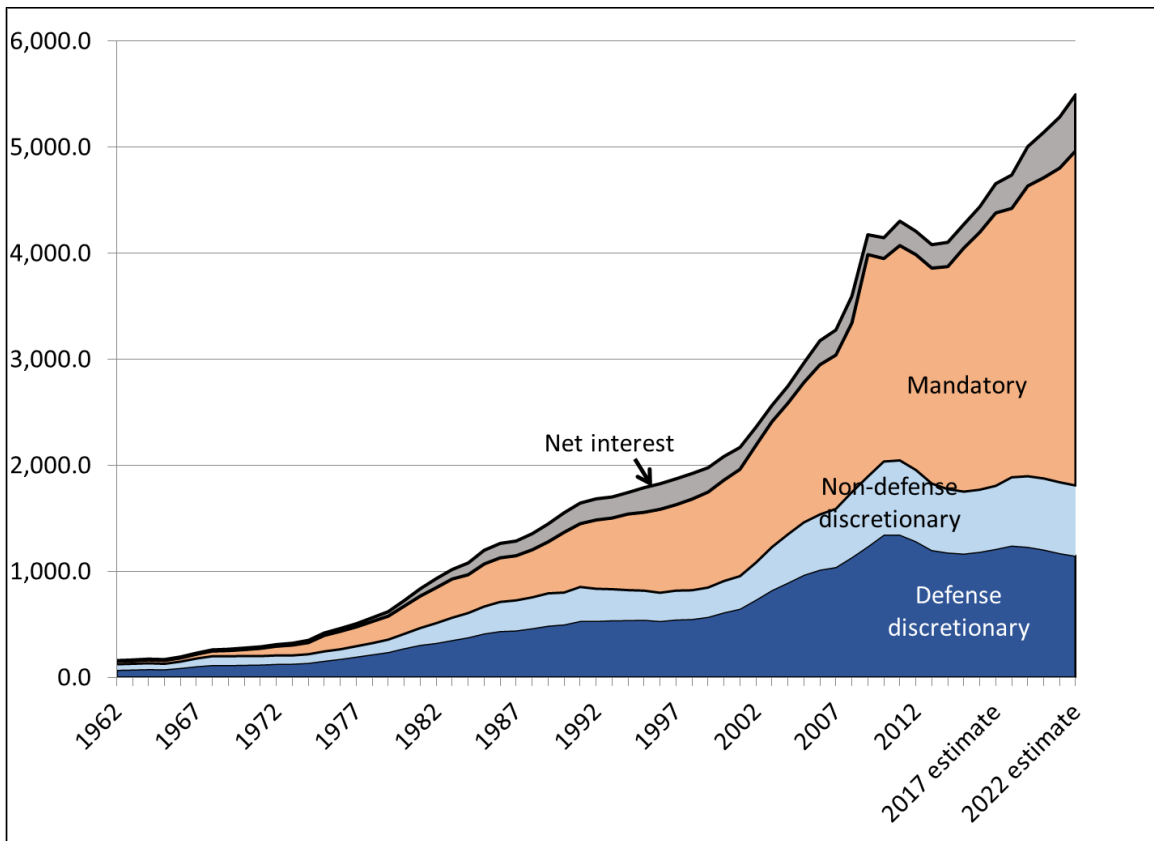
The Budget Control Act

For additional information on the BCA see CRS Report R44039, *The Budget Control Act and the Defense Budget: Frequently Asked Questions*, by Lynn M. Williams and CRS Report R42972, *Sequestration as a Budget Enforcement Process: Frequently Asked Questions*, by Megan S. Lynch.

Taking into account actual and projected defense spending over nearly six decades (1962-2022), OMB projects that defense outlays would increase by a multiple of 12.6 (from \$52.6 billion to a projected \$662.3 billion). Over the same period, net¹⁰ mandatory spending is projected to increase at roughly 10 times that rate (from \$27.9 billion to \$3.16 trillion). (See **Figure 1.**)

Figure 1. Federal Outlays by Budget Category

amounts in billions of dollars



Source: OMB Historical Table 8.1

According to OMB data, defense outlays, which accounted for 49.2% of federal spending in 1962, had dropped to 19.4% in 2011 – the year the BCA was enacted – and are projected to drop

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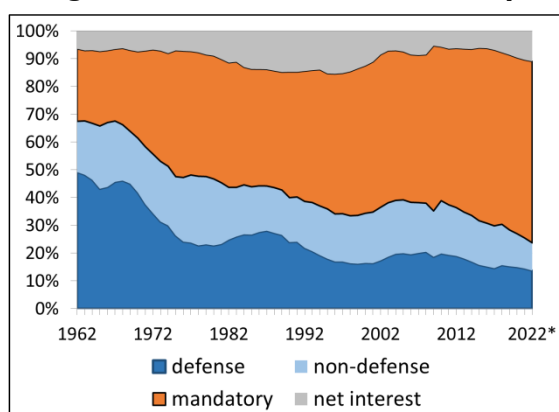
Budget Function (050), by Christopher T. Mann. For more information on funding for Overseas Contingency Operations see CRS Report R44519, *Overseas Contingency Operations Funding: Background and Status*, coordinated by Lynn M. Williams and Susan B. Epstein.

¹⁰ OMB calculates net mandatory spending by deducting from gross mandatory spending the value of offsetting receipts, including those from the sale of federal assets. For all but three years from 2007 to 2022, those offsets have amounted to (or are projected to be) between \$80 billion and \$100 billion.

to 13.7% by 2022. On the other hand, net mandatory outlays combined with net interest on the national debt, which accounted for 32.5% of outlays in 1962 and 62.6% in 2011, are projected to account for 76.2% percent of outlays in 2022. (See **Figure 2**.)

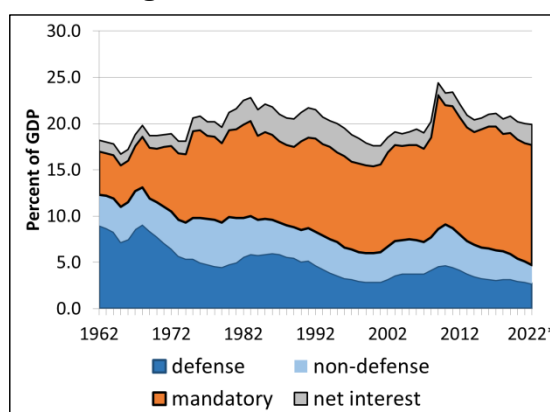
Similarly, the defense share of the GDP has decline relatively steadily since 1962, while the share of the GDP consumed by mandatory spending and net interest has risen. (See **Figure 3**.)

Figure 2. Percent of Federal Outlays



Source: OMB Historical Table 8.3

Figure 3. Percent of GDP



Source: OMB Historical Table 8.4

Trends in Federal Spending

For information on federal deficits and debt CRS Report R44383, *Deficits and Debt: Economic Effects and Other Issues*, by Grant A. Driessen. For additional information on mandatory spending see CRS Report R44641, *Trends in Mandatory Spending: In Brief*, by D. Andrew Austin.

FY2018 Defense Budget Request

Shortly after taking office, President Trump directed Secretary of Defense James Mattis to conduct a “30-day Readiness Review” of “military training, equipment maintenance, munitions, modernization and infrastructure.”¹¹ Subsequently, Secretary Mattis issued implementation guidance to DOD that describes a three-phase “campaign” to “build a larger, more capable, and more lethal joint force, driven by a new National Defense Strategy.” In the wake of that review, DOD moved out along three axes:

- Submitting a detailed amendment to the Obama Administration’s FY2017 budget request – seeking an additional \$30 billion to address what it described as “immediate and serious readiness challenges;”¹²

¹¹ U.S. President (Trump), Memorandum to the Secretary of Defense and Director of the Office of Management and Budget, Subject: Rebuilding the U.S. Armed Forces, January 27, 2017, at <https://www.whitehouse.gov/the-press-office/2017/01/27/presidential-memorandum-rebuilding-us-armed-forces>.

¹² This readiness review, in part, led to the Trump Administration’s March 2017 request for additional appropriations for DOD. In a letter to House Speaker Paul Ryan on March 16, 2017, President Trump said the \$30 billion request for additional funds in FY2017 would address “critical budget shortfalls in personnel, training, equipment, munitions, modernization and infrastructure investment. It represents a critical first step in investing in a larger, more ready, and more capable military force.” For more information see CRS Report R44806, *The Trump Administration’s March 2017 Defense Budget Proposals: Frequently Asked Questions*, by Pat Towell and Lynn M. Williams.

- Developing the FY2018 Budget Request to be “focus[ed] on balancing the program...while continuing to rebuild readiness;” and
- Beginning formulation of the FY2019-FY2023 Defense Program to be shaped by a new National Defense Strategy and provide “an approach to enchanc[e] the lethality of the joint force against high-end competitors and the effectiveness of our military against a broad spectrum of potential threats.”¹³

In its presentation of the FY2018 budget request, DOD highlighted several priorities:

- Improving warfighting readiness;
- “Filling holes” in capacity and lethality while preparing for future growth;
- Reforming DOD business practices;
- Keeping faith with service members and their families; and
- Supporting overseas contingency operations.¹⁴

The Trump Administration’s FY2018 budget request, released on May 23, 2017, included a total of \$677.1 billion for national defense-related activities of the federal government (budget function 050).¹⁵ Of the national defense total, \$667.6 billion is discretionary spending to be provided, for the most part, by the annual appropriations bill drafted by the Appropriations Committees of the House and Senate.¹⁶ The remaining \$9.6 billion is mandatory spending, that is, spending for entitlement programs and certain other payments. Mandatory spending is generally governed by statutory criteria and it is not provided by annual appropriation acts.¹⁷

As has been typical in recent years, about 95% of the national defense total (\$646.9 billion) is for military activities of the DOD—referred to as subfunction 051. The balance of the function 050 request comprises \$21.8 billion for defense-related nuclear energy activities of the Department of Energy (designated subfunction 053) and \$8.4 billion for defense-related activities of other agencies (designated subfunction 054) of which about two-thirds is allocated to the Federal Bureau of Investigation. See **Figure 4**.

¹³ Secretary of Defense James Mattis, “Implementation Guidance for Budget Directives in the National Security Presidential memorandum on Rebuilding the U.S. Armed Forces,” January 31, 2017, at <https://media.defense.gov/2017/Feb/01/2001693094/-1/-1/0/DDD-170201-373-002>.

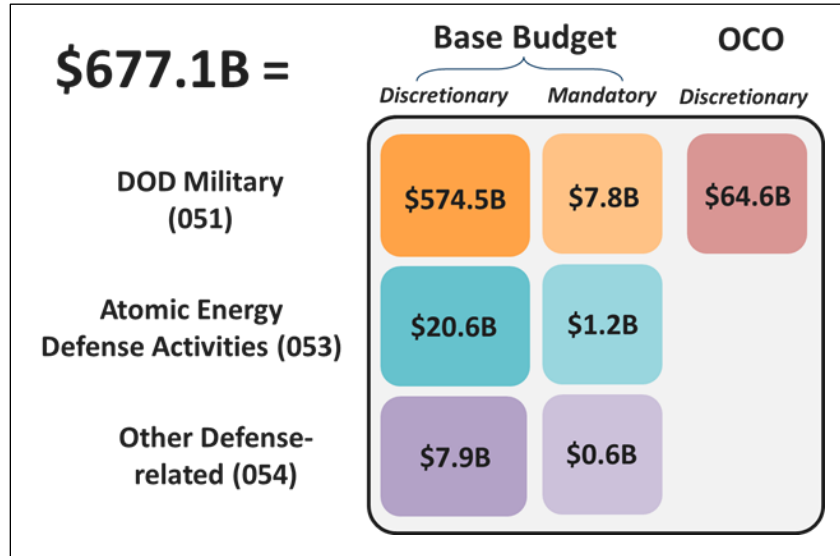
¹⁴ Office of the Under Secretary of Defense (Comptroller), “Defense Budget Overview, United States Department of Defense Fiscal Year 2018 Budget Request,” May 2017 at http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2018/fy2018_Budget_Request_Overview_Book.pdf.

¹⁵ For more information on federal budget functions see CRS In Focus IF10618, *Defense Primer: The National Defense Budget Function (050)*, by Christopher T. Mann.

¹⁶ The budget includes \$6.4 billion to fund medical insurance for military retirees under the TRICARE for Life program. This annual TRICARE for Life payment occurs automatically, on the basis of permanent law rather as part of an annual appropriation, but, in terms of congressional budgeting rules, it is “discretionary” funding.

¹⁷ Congressional Budget Office, <https://www.cbo.gov/content/what-difference-between-mandatory-and-discretionary-spending>.

Figure 4. FY2018 Budget for National Defense (050)
(dollars in billions)



Source: OMB Analytical Perspectives (Table 25-1).

Notes: Totals may not reconcile due to rounding. OCO is Overseas Contingency Operations.

The term *base budget* is commonly used to refer to funds intended to pay for activities the DOD and other national defense-related agencies would pursue even if U.S. forces were not engaged in contingency operations in Afghanistan, Iraq, Syria and elsewhere. In principle, the remainder of the DOD budget request funds the expected incremental cost of those ongoing military operations which are formally designated Overseas Contingency Operations (OCO). Appropriations designated for OCO are effectively exempt from the BCA discretionary spending caps.¹⁸

For FY2018, the Administration proposes a total DOD budget of \$639.1 billion, of which \$574.5 billion comprises the discretionary base budget and \$64.6 billion is designated as OCO funding. The \$574.5 billion request for DOD is a 10% increase from the FY2017 enacted level (see **Table 1**).

Table 1. FY2018 DOD Military Request (Subfunction 051)
(budget authority in billions of discretionary dollars)

	FY2017 Enacted	FY2018 Request	FY2017-FY2018 Change	Percentage Change
Base	\$523.2	\$574.5	+ \$51.3	+10%
OCO	\$82.8	\$64.6	- \$18.2	- 22%
Total	\$606.0	\$639.1	+ \$33.1	+ 5.5%

Sources: Department of Defense, FY2018 Budget Overview and CBO Estimate on the Consolidated Appropriations Act, 2017 (H.R. 244/P.L. 115-31).

Note: Totals may not reconcile due to rounding.

¹⁸ For more information on the designation of OCO funding as it relates to the BCA see CRS Report R44519, *Overseas Contingency Operations Funding: Background and Status*, coordinated by Lynn M. Williams and Susan B. Epstein.

Comparison of FY2017 Appropriations with FY2018 Request

Any comparison of the FY2018 request to FY2017 enacted amounts should be done with consideration that the FY2017 defense appropriations act (Division C of P.L. 115-31) included \$14.8 billion in OCO appropriations in Title X—Additional Appropriations. In addition to \$2.1 billion for counter-ISIL activities, these OCO-designated amounts included \$12.7 billion that, in general, was drawn from the Trump Administration’s March 2017 request for \$24.7 billion in additional base budget authority for DOD.

Limits on the FY2018 Base Budget Defense Appropriations

The current national defense (budget function 050) discretionary limit (or “cap”) set by the BCA is \$549 billion for FY2018. The Trump Administration proposes \$603 billion for base budget national defense discretionary spending in FY2018—\$54 billion more than the BCA limit. In the absence of the appropriate statutory changes to BCA, defense appropriations at the requested level would trigger sequestration.¹⁹

The Trump Administration’s FY2018 budget called on Congress to raise the defense discretionary caps for FY2018-FY2021 to accommodate the proposed DOD budget,²⁰ coupled with a recommendation to continue BCA-like limits on discretionary spending through FY2027—six years beyond the expiration of the Budget Control Act (see **Table 2**).

The Administration’s proposed increases in defense spending – which total \$463 billion over the period FY2018-FY2027 -- would be more than offset by reductions in non-defense spending that would total \$1.5 trillion over the same period. In total, the President’s budget proposes a \$1 trillion cumulative reduction in federal discretionary spending by establishing such limits.²¹

Table 2. Administration Proposed Discretionary Limits: FY2018-FY2027
(budget authority in billions)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Current BCA Limits										
Defense	549	562	576	590	—	—	—	—	—	—
Non-defense	516	530	543	556	—	—	—	—	—	—
Proposed Limits										
Defense	603	616	629	642	655	669	683	697	712	727
Non-defense	462	453	444	435	426	417	409	401	393	385

Source: Office of Management and Budget, *A New Foundation for American Greatness—President’s Budget FY 2018*, Table S-7.

Note: The Administration’s estimates through FY2022-FY2027 are based on stated assumptions that programs will “grow at current services growth rates consistent with current law.” See footnotes 1-9 to the source table (S-7).

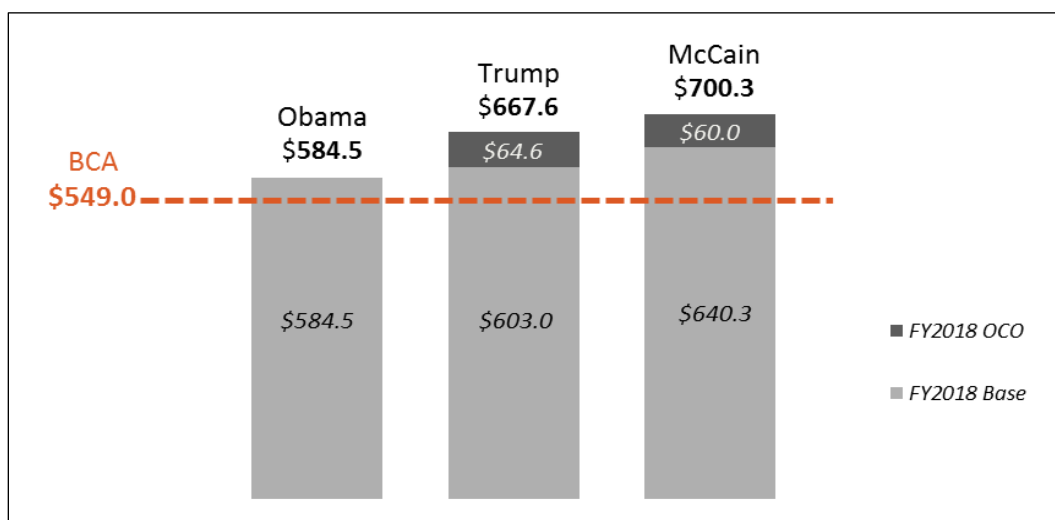
¹⁹ For information about sequestration see CRS Report R42972, *Sequestration as a Budget Enforcement Process: Frequently Asked Questions*, by Megan S. Lynch.

²⁰ Office of Management and Budget, *A New Foundation for American Greatness – President’s Budget FY 2018*, May 23, 2017, at <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf>.

²¹ The BCA places limits on discretionary spending in two categories: defense (budget function 050) and non-defense (all other discretionary spending). For more information see CRS Report R44039, *The Budget Control Act and the Defense Budget: Frequently Asked Questions*, by Lynn M. Williams.

The Trump Administration’s proposed increase in base budget national defense spending—above the current statutory cap for FY2018—falls between two other notable FY2018 budget proposals that also would have exceeded the current BCA defense spending cap: the Obama Administration’s projected \$584.5 billion budget, and a projected budget of \$640.3 billion proposed by Senate Armed Services Committee Chairman John McCain (see **Figure 5**).²²

Figure 5. Selected Alternative FY2018 National Defense Budget Proposals
(amounts in billions of dollars of discretionary budget authority)



Sources: CRS analysis of the Budget Control Act of 2011 (P.L. 112-25), as amended; National Defense Budget Estimates for FY2017 (Green Book); Office of Management and Budget, *America First: A Budget Blueprint to Make America Great Again*, March 16, 2017; and Senator John McCain, “Restoring American Power,” January 16, 2017.

Note: The Obama Future Years Defense Program (FYDP) included a placeholder for Overseas Contingency Operations indicating that funding would be needed, but no actual estimates were provided.

FY2018 DOD Military Base Budget Request

The DOD’s base budget request for FY2018 was a net of \$51.3 billion higher than the amount appropriated in FY2017. (See **Table 3**.)

²² On January 16, 2017, Senator John McCain, released a defense budget proposal for FY2018-FY2022. Many, including House Armed Services Chairman Mac Thornberry have endorsed the McCain funding levels for FY2018. See “Restoring American Power: SASC Chairman John McCain releases defense budget white paper,” press release, <https://www.mccain.senate.gov/public/index.cfm/press-releases?ID=AA148EA0-8753-4483-8BEB-3D812D51F055>. 201, and Aaron Mehta and Joe Gould, “McCain, Thornberry rip White House budget plan on defense,” *Defense News*, February 27, 2017 at <http://www.defensenews.com/articles/analysts-new-white-house-plan-to-boost-defense-with-domestic-cuts-wont-happen>.

Table 3. FY2018 DOD Military Base Budget Request

(budget authority in millions of discretionary dollars)

Title	FY2017 Enacted	FY2018 Request	Change	Percentage Change
Military Personnel ^a	\$135,626.0	\$141,685.6	\$6,059.7	4.5%
Operation and Maintenance	\$167,603.3	\$188,570.3	\$20,967.0	12.5%
Procurement	\$108,362.8	\$113,983.7	\$5,620.9	5.2%
Research, Development, Test and Evaluation	\$72,301.0	\$82,716.6	\$10,415.6	14.4%
Military Construction/Family Housing	\$7,726.0	\$9,782.5	\$2,056.5	27.0%
Revolving Funds and Other authorizations ^b	\$37,127.4	\$37,896.8	\$769.4	2.1%
General Provisions (net)	-\$3,924.7	\$123.9	N/A	N/A
Total	\$524,795.8	\$574,759.5	\$45,889.1	8.7%

Sources: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125. FY2017 enacted amounts obtained from H.Rept. 115-219 to accompany H.R. 3219, Defense Appropriations Act, 2018, comparative tables, p. 322-350. Military construction and family housing enacted amounts obtained from H.R. 5325 (P.L. 114-223).

Notes: Totals may not reconcile due to rounding.

- Military personnel amounts include accrual payments to the Medicare-Eligible Retiree Health Care Fund (MERHCF) which funds "TRICARE for Life" (\$6.9 billion in FY2017 enacted and \$7.8 billion in FY2018 request). Although they are counted as discretionary appropriations, MERHCF accrual payments occur automatically by the authority of permanent law (10 U.S.C. §1116) and are not included in the annual defense appropriations bills.
- Includes funding for the Defense Health Program; drug interdiction and counterdrug activities; chemical agents and munitions destruction; and the Office of the Inspector General.

FY2018 DOD Overseas Contingency Operations Budget Request

The FY2018 President's budget request includes \$64.6 billion for DOD's Overseas Contingency Operations spending. The request reflects a \$5.1 billion reduction from the FY2017 request of \$69.7 billion. By comparison, defense appropriations for OCO in FY2017 totaled \$82.8 billion, of which approximately \$18 billion was designated to fund base budget activities.²³

Table 4. Troop Levels for Overseas Contingency Operations

(average annual troop strength)

Force	FY2016 Actual	FY2017 Enacted	FY2018 Request
Afghanistan (OFS)	9,737	8,674	8,448
Iraq (OIR)	3,550	5,765	5,765
In-theater support	55,831	62,486	56,310
In CONUS/Other Mobilization	15,991	13,085	16,611

²³ H.R. 244 Division C, Title X included \$2.2 billion in funding for Counter-ISIL Train and Equip Fund and Counter ISIL OCO Transfer Fund. CRS analysis of CBO estimate for Divisions A-L of H.R. 244, the Consolidated Appropriations Act, 2017 (P.L. 115-31), the Further Continuing and Security Assistance Appropriations Act, 2017 (P.L. 114-254), and the National Defense Authorization Act for FY2017 (P.L. 114-328).

Force	FY2016 Actual	FY2017 Enacted	FY2018 Request
Total	85,109^a	90,010	87,134

Source: Department of Defense, FY2018 Defense Budget Overview.

Notes: In-theater support includes Afghanistan, Iraq, Horn of Africa, and ERI.

a. FY2016 Enacted Total (85,109) was reported as 85,108 in the FY2018 Defense Budget Overview

Of the Administration’s \$64.6 billion request for OCO funding, more than 70% (\$45.9 billion) is designated for Operation Freedom’s Sentinel (Afghanistan) and overall U.S. Central Command theater posture. The funding requested would maintain 8,448 U.S. military personnel in Afghanistan for train, advise, and assist (TAA) and counterterrorism efforts. Included in this amount is \$4.9 billion for the Afghan Security Assistance Fund to continue training and equipping of Afghan security forces, including procurement of aviation assets to support Afghan air force modernization.

The budget request includes \$13.0 billion to maintain a force level of 5,765 personnel in Iraq and Syria and support Operation Inherent Resolve. Of the amount requested, \$1.8 billion would fund the Counter Islamic State of Iraq and Syria Train and Equip Fund (CTEF)—\$1.3 billion for Iraq train and equip (T&E) activities in support of the Iraqi government’s security forces and \$500 million for Syria T&E in support of forces opposed to the Syrian government that would combat ISIL. The budget also includes \$850 million for security cooperation (SC) efforts aimed at *building partner capacity*, that is, improving the ability of other governments to conduct counterterrorism, perform crisis response and other security activities.²⁴

The OCO request also includes \$4.8 billion to enhance U.S. presence in Eastern Europe, often referred to as the European Reassurance Initiative (the ERI). The Administration states that the funding is to provide “near-term flexibility and responsiveness to the evolving concerns of U.S. allies and partners in Europe and helps to increase the capability and readiness of U.S. allies and partners.”²⁵ The majority of the requested funding (81%) would enhance U.S. presence in the region, providing \$1.7 billion to increase U.S. military personnel presence in Europe and \$2.2 billion to increase prepositioned stocks of U.S. military equipment in the region. The request also includes \$150 million to “continue train, equip, and advise efforts to build Ukrainian capacity to conduct internal defense operations to defend its sovereignty and territorial integrity.”²⁶

Table 5 provides a breakdown of the OCO budget request by title.

Table 5. FY2018 DOD Overseas Contingency Operations Budget Request
(budget authority in millions of discretionary dollars)

Title	FY2017 Enacted	FY2018 Request
Military Personnel	\$3,573.4	\$4,276.3
Operation and Maintenance	\$50,191.2	\$41,330.5
Afghanistan Security Forces	\$4,262.7	\$4,937.5

²⁴ Formerly known as the Counterterrorism Partnership Fund; transitioned to broader authority that includes counterterrorism, crisis response, border security and other security cooperation support to partner nations by National Defense Authorization Act for Fiscal Year 2017 (P.L. 114-328).

²⁵ Department of Defense, FY2018 Defense Budget Overview, at http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2018/fy2018_Budget_Request_Overview_Book.pdf.

²⁶ Ibid.

Title	FY2017 Enacted	FY2018 Request
Counter-ISIL	\$980.0	\$1,769.0
Procurement	\$14,888.3	\$9,761.6
RDT&E	\$1,397.2	\$611.2
Revolving and Management Funds	\$426.3	\$149.0
Other	\$1,035.6	\$1,099.9
Military Construction	\$0.4	\$0.6
General Provisions (net)	(\$180.52)	N/A
Total OCO Budget	\$76,574.7	\$63,935.5

Sources: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125. FY2017 enacted amounts obtained from H.Rept. 115-219 to accompany H.R. 3219, Defense Appropriations Act, 2018, comparative tables, p. 322-350. Military construction and family housing enacted amounts obtained from H.R. 5325 (P.L. 114-223).

Notes: Totals may not reconcile due to rounding. Enacted amounts include \$14.8 billion in “Additional Appropriations” provided in H.R. 244, Division C, Title X.

Unfunded Priority Lists (UPLs)

Section 1064 of the FY2017 National Defense Authorization Act (NDAA/ P.L. 114-328) added 10 U.S.C. §222a to the U.S. Code, requiring each of the armed forces and combatant commanders to report on unfunded priorities.²⁷ The statute defines an “unfunded priority” as a program, activity, or mission requirement that

1. is not funded in the President’s budget for the fiscal year under consideration;
2. is necessary to fulfill a requirement associated with an operational or contingency plan or other validated requirement; and
3. would have been recommended for funding if additional resources were available, or if the requirement had emerged after the budget was formulated.²⁸

The military services submitted their FY2018 unfunded priority lists (UPLs)—totaling \$32 billion—to Congress on June 1, 2017. The Army identified \$12.7 billion in unfunded priorities, including \$2.3 billion in funding for activities the Army associated as “Warfighter Readiness.”²⁹ The Army’s UPL also identified additional funding needed for munitions (\$2.3 billion), increased capacity to grow end-strength (\$3.1 billion), weapon systems investments for modernization/improved lethality (\$4.9 billion), and military construction (\$579 million). Of the \$4.9 billion in unfunded weapon systems investments, the Army cited air and missile defense, long-range artillery, and munitions as their top priorities.

The Air Force reports \$10.7 billion in unfunded priorities including \$504 million in personal protective gear for Airmen (helmets, vests, and ruggedized footwear), night vision devices, communications equipment, and increased funding for training. Also listed are \$6.7 billion in

²⁷ 10 U.S.C. §222a requires the Chief of Staff of the Army, the Chief of Naval Operations, the Chief of Staff of the Air Force, the Commandant of the Marine Corps, and the commanders of the combatant commands to submit a report on their unfunded priorities to the congressional defense committees within 10 days of the President’s budget submission.

²⁸ 10 U.S.C. 222a.

²⁹ For example, the “Warfighter Readiness” category included increased funding for manning, training, sustainment, infrastructure and equipment.

“Readiness/Modernization” needs including 14 additional F-35s, three additional KC-46s, funding for an EC-130 avionics update, and additional investments in legacy aircraft modification/modernization programs. The Air Force UPL also cites shortfalls in Nuclear Deterrence Operations (\$360 million), Space (\$772 million), Cyberspace (\$563 million) and Infrastructure (\$1.8 billion).

The Navy’s unfunded priorities total \$5.5 billion. The Navy’s report to Congress prioritizes weapons systems purchases with requirements for \$740 million for 10 F/A-18’s, \$1.0 billion for 6 additional P-8A Poseidon Aircraft, \$390 million for four V-22 Osprey tilt-rotor aircraft, and \$300 million for 5 ship-to-shore vessels and other weapon systems. Aviation logistics funding is at the bottom of the list, with no mention of shortfalls in major ship repair/overhaul or depot maintenance.

Like the Navy, the Marine Corps stated unfunded priorities are heavily weighted toward aviation system procurements. Of the stated \$3.1 billion in unfunded priorities, \$2.4 billion is associated with aircraft and aviation systems procurement (six additional F-35s, four additional KC-130J mid-air refueling tankers, two additional CH-53K cargo helicopters, two additional MV-22 tilt-rotor aircraft, seven additional AH-1Z attack helicopters, and two C-40A executive transport aircraft). The Marine Corps report also cites \$482 million in unfunded “Ground” priorities, including military construction, facilities sustainment, night optics, and training munitions.

FY2018 NDAA

On July 14, 2017, the House passed H.R. 2810, the National Defense Authorization Act for FY2018, by a vote of 344-81. On September 18, 2017, the Senate passed its version of that bill by a vote of 89-8 after having replaced the text of the House bill with an amended version of S. 1519, the version of the bill that had been reported by the Senate Armed Services Committee.

Before passing the NDAA, the Senate modified the committee-reported text, adopting by unanimous consent 154 amendments.³⁰ In the Senate’s only roll call vote on an amendment to the bill, it voted 61-36 to table (and thus defeat) an amendment that would have repealed (six months after enactment of the bill) the joint resolutions on the Authorization of Military Force (AUMF) enacted in 2001 (P.L. 107-40) and in 2002 (P.L. 107-243).

Authorization of the Use of Military Force (AUMF)

For additional background and analysis of AUMF, see the following: CRS In Focus IFI0539, *Defense Primer: Legal Authorities for the Use of Military Forces*, by Jennifer K. Elsea; CRS Report R43983, *2001 Authorization for Use of Military Force: Issues Concerning Its Continued Application*, by Matthew C. Weed; and CRS Report R43760, *A New Authorization for Use of Military Force Against the Islamic State: Issues and Current Proposals*, by Matthew C. Weed.

Of the \$667.6 billion in national defense discretionary funding requested by the President for FY2018, \$659.8 billion falls within the jurisdiction of the House and Senate Armed Services Committees and is subject to authorization by the annual National Defense Authorization Act (see **Table 6**).

³⁰The text of the McCain amendment (SA 1003) appears in the *Congressional Record* beginning on p. S5273). SA1003 incorporated 61 amendments to the text of S. 1519 as reported (See "Amendment 1003— in the nature of a substitute," National Defense Authorization Act for Fiscal Year 2018, *Congressional Record*, daily edition, vol. 163, part 148 (September 13, 2017), p. S5254. Full text of Amendment 1003 begins on p. S5287.

Budgetary Overview

In terms of the total amount authorized, the House bill and the Senate bill differed by slightly more than \$3 billion (less than 0.5%). The House bill's \$689.0 billion total would exceed the Administration's request by \$29.2 billion (about 4.4%), whereas the Senate proposal would exceed the request by \$32.3 billion or about 4.8% (see **Table 6**).

Despite recommending base budget authorization totals that would exceed the BCA spending limit of \$549 billion by upwards of 10%, neither the House bill nor the Senate bill includes a provision that would repeal or modify the BCA limit for FY2018 in current law.³¹

Table 6. FY2018 Defense Authorizations (as Reported)

billions of dollars of discretionary budget authority

	Request for NDAA	House Armed Services Committee-reported H.R. 2810	Senate Armed Services Committee-reported S. 1519
DOD Base Budget	\$574.6	\$592.8	\$610.9
Atomic Energy Defense Activities	\$20.5	\$20.8	\$21.0
Defense-related/Maritime Administration	\$0.2	\$0.2	n/a
Subtotal: Base Budget	\$595.3	\$613.8	\$631.9
Overseas Contingency Operations (OCO)	\$64.6	\$64.6	\$60.2
OCO for Base Budget Purposes	\$0.0	\$10.0	\$0.0
GRAND TOTAL: FY2018 NDAA	\$659.8	\$688.3	\$692.1

Sources: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes: The Senate passed the amended text of S. 1519 as an amended version of H.R. 2810.

Totals in this table may not reconcile due to rounding. The Senate Armed Services Committee reporting of the Administration's budget request for DOD is slightly higher than the House Armed Service Committee, rounding to \$574.7 billion, as the Senate included \$124 million associated with the Compact of the Free Association with Palau (funded in federal budget function 800).

The total amounts recommended for authorization by the House and Senate bills differ by less than \$3.2 billion—about 0.45% of the amount they would authorize. Behind those similar totals, however, the two bills differ more strikingly in how they would allocate funds between the base budget and OCO:

- The House bill would authorize \$593.4 billion for base budget purposes—an increase of \$18.8 billion over the budget request—whereas the Senate bill would authorize \$36.3 billion more than the request (\$610.9 billion).
- The Senate bill would authorize a total of \$60.2 billion designated as OCO funding (\$4.4 billion less than the Administration's request), whereas the House

³¹ For more detail on authorizations proposed by the H.R. 2810 and S. 1519 in the context of federal budget function 050 (subject to the BCA limits), see H.Rept. 115-200, p. 352, "National Defense Budget Authority Implication," and S.Rept. 115-125, p. 374, "Discretionary Budget Authority Implication (050)."

bill would authorize \$74.6 billion designated as OCO—\$10.0 billion more than the Administration requested.

The Administration’s base budget request would exceed the BCA defense spending cap. Thus, appropriations provided at that level would trigger sequestration absent a change in the law. The differences between the House and Senate versions of the FY2018 NDAA reflect, in large part, differences in how the chambers would categorize and allocate additional funding for base budget purposes without increasing the amount by which base budget spending would exceed the BCA cap. As a result, comparisons of the amounts that would be authorized by the Administration request and the two versions of the NDAA are complicated by two factors:

OCO-for-Base Authorizations

In addition to authorizing \$593.4 billion that was requested by the Administration as base budget funding, the House bill would authorize an additional \$10.0 billion that would be designated as OCO funding—and, thus, would be exempt from the BCA cap—but would be spent for base budget purposes. The majority of this *OCO-for-base* funding would increase procurement amounts by an additional \$6.0 billion, all of which would be authorized for shipbuilding activities. In contrast, the Senate bill would not authorize OCO-designated funds for base budget purposes.³²

European Defense Initiative Authorizations

Comparison of the base budget authorizations in the House and Senate bills with the Administration’s base budget request is also complicated by the bills’ handling of the \$4.8 billion requested for the European Deterrence Initiative (EDI)—an array of investments, deployments, and security assistance grants intended to reassure U.S. allies threatened by Russian military and political maneuvers.³³ The Administration included its EDI funding request in the OCO budget, but the House and Senate NDAAs would authorize it largely as part of the base budget.

Comparison of Base Budget Authorizations

The House authorization of *OCO-for-base* funding, and both committees’ rejection of the President’s request to designate as OCO most EDI funding complicate comparison of the base budget amounts authorized by the two versions of the bill. One way to compare the Administration’s base budget request (**Table 7**, column “a”) with the amounts the House and Senate bills would authorize *for that request* would be to adjust the base budget authorization totals in the House and Senate bills to eliminate the following realignments in funding:

- For the House bill add to the base budget (**Table 7**, column “b”) the bill’s “OCO for base” authorizations (**Table 7**, column “c”) and deduct the EDI funds (**Table**

³² In recent years, Congress and the Obama Administration designated certain funds for OCO but have authorized the obligation of the funding for base budget purposes. For background and a summary of similar actions related to FY2017 authorizations and appropriations, see CRS Report R44454, *Defense: FY2017 Budget Request, Authorization, and Appropriations*, by Pat Towell and Lynn M. Williams. For more information on the designation of funding for Overseas Contingency Operations and the applicability of the Budget Control Act limits, see CRS Report R44519, *Overseas Contingency Operations Funding: Background and Status*, coordinated by Lynn M. Williams and Susan B. Epstein.

³³ The European Deterrence Initiative (EDI) formerly was known as the European Reassurance Initiative (ERI). The budget request was not updated to reflect the change.

7, column “d”) to get a comparable *adjusted* base budget total (Table 7, column “e”).

- For the Senate amendment deduct from the base budget (Table 7, column “f”) the EDI funds (Table 7, column “g”) to get a comparable *adjusted* base budget total (Table 7, column “h”).

Viewed in that light, the two versions of the NDAA’s do not differ dramatically in the amounts they would authorize for the major components of the Administration’s base budget. The Senate amendment would authorize a net total of \$8.0 billion more than the House measure, with procurement funds accounting for the largest share of the difference.

Table 7. FY2018 Proposed DOD Base Budget Authorizations (as reported)

billions of dollars of discretionary budget authority

Title	Request		House-passed H.R. 2810			Senate Armed Services Committee-reported S. 1519		
	(a) Base	(b) Base	(c) OCO for Base	(d) EDI	(e) Adjusted Base	(f) Base	(g) EDI	(h) Adjusted Base
Procurement	\$114.0	\$127.9	\$6.0	\$1.9	\$132.0	\$140.3	\$1.9	\$138.4
RD&E	\$82.7	\$84.0	\$0.8	\$0.1	\$84.7	\$86.0	\$0.1	\$85.9
O&M	\$188.6	\$191.6	\$2.1	\$2.3	\$191.4	\$194.9	\$2.1	\$192.8
Military Personnel	\$141.7	\$141.9	\$1.1	\$0.2	\$142.8	\$141.5	\$0.2	\$141.3
Other	\$37.9	\$37.8	—	\$0.1	\$37.7	\$37.9	\$0.1	\$37.8
Military Construction	\$9.8	\$9.6	—	\$0.2	\$9.4	\$10.2	\$0.3	\$9.9
Total	\$574.6	\$592.8	\$10.0	\$4.5	\$598.2	\$610.9	\$4.6	\$606.3

Sources: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Note: Totals may not reconcile due to rounding.

Comparison of OCO Authorizations

Similarly, for a comparison of the OCO funding levels in the budget request and the OCO authorizations proposed by the two versions of the NDAA, one could, in each case, deduct the EDI-related funding (see Table 8).

Table 8. FY2018 Proposed DOD Authorizations for Overseas Contingency Operations (as reported)

billions of dollars of discretionary budget authority

	Request			House-passed H.R. 2810 (excludes OCO for base)			Senate Armed Services Committee-reported S. 1519		
	(a) OCO	(b) EDI	(c) Adjusted OCO	(d) OCO	(e) EDI	(f) Adjusted OCO	(g) OCO	(h) EDI	(i) Adjusted OCO
Procurement	\$10.2	\$1.9	\$8.3	\$11.9	\$0.0	\$11.9	\$8.4	\$0.0	\$8.4
RDT&E	\$0.6	\$0.1	\$0.5	\$1.3	\$0.0	\$1.3	\$0.5	\$0.0	\$0.5

	Request			House-passed H.R. 2810 (excludes OCO for base)			Senate Armed Services Committee-reported S. 1519		
O&M (excluding Counter-ISIL)	\$46.3	\$2.3	\$46.0	\$44.2	\$0.0	\$44.2	\$44.4	\$0.5	\$43.9
Counter-ISIL Train and Equip Fund	\$1.8	\$0.0	\$1.8	\$1.8	\$0.0	\$1.8	\$1.8	\$0.0	\$1.8
Military Personnel	\$4.3	\$0.2	\$4.1	\$4.1	\$0.0	\$4.1	\$4.1	\$0.0	\$4.1
Other (excluding Counter-ISIL)	\$0.6	\$0.1	\$0.5	\$0.7	\$0.0	\$0.7	\$0.8	\$0.0	\$0.8
Military Construction	\$0.6	\$0.3	\$0.3	\$0.6	\$0.2	\$0.4	\$0.3	\$0.0	\$0.3
Total	\$64.6	\$4.8	\$59.8	\$64.6	\$0.2	\$64.4	\$60.3	\$0.3	\$59.8

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes: Totals may not reconcile due to rounding. OCO request shown for the House bill does not include amounts separately authorized in that bill as “OCO for Base”. Counter-ISIL Train and Equip Fund is presented as a separate line because the House bill would authorize it in the O&M title and the Senate amendment would authorize it in the “Other” title.

Comparison of EDI Authorizations

For the most part, the House and Senate bills would support the Administration’s EDI request, although they propose to authorize most of the funds as part of the base budget, rather than as OCO funding, as the Administration proposed. The House bill includes a provision (§1275) that would require the Secretary of Defense to submit to the Senate and House Armed Services and Appropriations Committees a plan for the U.S. military role in Europe and for EDI funding through FY2022. The provision also would halt the divestiture of U.S. military sites in Europe, pending receipt of that report.

Both proposals would designate some EDI funding as OCO:

- the House bill would authorize as OCO funding \$195 million of the \$307 million requested for EDI-related military construction; and
- the Senate bill would authorize funding for security assistance to Ukraine in the OCO budget and would add \$350 million to the \$150 million requested for such activities (see **Table 9**).

Table 9. Proposed Authorizations for European Deterrence Initiative (as reported)

millions of dollars of discretionary budget authority

	Request	House-passed H.R. 2810	Senate Armed Services Committee- reported S. 1519
Base budget	\$0.0	\$4,470.4	\$4,627.3
Overseas Contingency Operations (OCO)	\$4,777.3	\$195.0	\$500.0
Total	\$4,777.3	\$4,665.6	\$5,127.3

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Selected Defense Budget and Policy Issues in H.R. 2810

Intermediate-Range Nuclear Forces Treaty³⁴

The United States and Soviet Union signed the Intermediate-Range Nuclear Forces (INF) Treaty in 1987. In agreeing to the INF Treaty, the United States and Soviet Union agreed that they would ban all land-based ballistic and cruise missiles with ranges between 500 and 5,500 kilometers. The ban would apply to missiles with nuclear or conventional warheads, but would not apply to sea-based or air-delivered missiles. The U.S. State Department has consistently raised concerns about the Russian Federation violating the INF Treaty since 2014. In testimony before the House Armed Services Committee on March 8, 2017, General Paul Selva, the Vice Chairman of the Joint Chiefs of Staff, confirmed press reports that Russia had begun to deploy a new ground-launched cruise missile, in violation of the INF Treaty.³⁵

The House bill includes a series of provisions (§1241-1248) aimed at compliance enforcement regarding Russian violations of the INF Treaty and other related matters. The Senate bill (§1635) would establish a policy of the U.S. regarding actions necessary to bring the Russian Federation back into compliance with the INF Treaty. Both would mandate that the Pentagon establish a program of record for the development of a U.S. land-based missile of INF range which, if carried out, would violate the treaty.

The INF Treaty

For background and analysis on the INF Treaty see CRS Report R43832, *Russian Compliance with the Intermediate Range Nuclear Forces (INF) Treaty: Background and Issues for Congress*, by Amy F. Woolf.

Deterring Russian Aggression³⁶

Both the House and Senate bills include policy provisions aimed at deterring Russian aggression and responding to Russian influence operations. Both bills would express support for continued funding for the European Deterrence Initiative at levels similar to the President's budget request. The House bill would further state that it is U.S. policy "to develop, implement, and sustain credible deterrence against aggression" by the Russian government (§1233). The House bill would also require the Secretary of Defense, mostly in coordination with the Secretary of State, to develop and submit strategies, plans, or reports aimed at countering Russian threats and military capabilities, among other objectives (see §1251-1259, §1656). The Senate bill would require the Secretary of Defense to include an assessment of Russian hybrid warfare in an annual report on Russian military and security developments. Both chambers would also require reports on Russian cyber attacks against the Department of Defense (House bill, §1059) or influence operations against members of the Armed Forces (Senate amendment, §1247).³⁷

Both bills would also provide an extension of authorities to provide security assistance – including defensive lethal assistance and intelligence support – to Ukraine (House bill, §1234;

³⁴ This section authored by Amy Woolf (7-2379).

³⁵ U.S. Congress, House Committee on Armed Services, *Military Assessment of Nuclear Deterrence Requirements*, 115th Cong., 1st sess., March 8, 2017.

³⁶ This section authored by Cory Welt (7-0530).

³⁷ In addition, H.R. 2810 (§545) would authorize the Secretary of Defense to furnish annual training on Russian influence campaigns against the Armed Forces.

Senate amendment, §1243). The Senate bill (§1250) would expand the underlying authorities to include medical treatment of wounded Ukrainian soldiers in certain conditions.

The House bill would express support for U.S. allies and partners Estonia, Latvia, Lithuania, and Georgia (§1237-1238). The Senate amendment would extend authorities for the training of Eastern European national security forces in multilateral exercises and authorize the Secretary of Defense to provide joint security assistance to Estonia, Latvia, and Lithuania to strengthen their resiliency and deterrence against Russian aggression (§1244-1245).

In addition, both chambers would extend existing prohibitions on funding for military-to-military cooperation with Russia and for implementing any activity that would recognize Russian sovereignty over Crimea (House bill, §1231-1232; Senate bill, §1241-1242). The House bill also included three provisions that would restrict contracting with Russian entities:

- §1612 - Restrictions against contracts for satellite services using satellites or launch vehicles designed or manufactured in Russia, or by an entity controlled by the Russian government, except for launches in the United States with engines designed, manufactured in, or provided by entities of Russia.
- §1664 - Restrictions against contracts to procure or obtain telecommunications equipment, systems, or services from Russian government-controlled entities to carry out DOD nuclear deterrence and homeland defense missions.
- §3117 - Restrictions against contracts or assistance agreements with Russia for atomic energy defense activities.

Additional Information on the Russian Federation

For more information on Russia, see CRS Report R44775, *Russia: Background and U.S. Policy*, by Cory Welt.

North Korean Threats

Both the House and Senate bills both include sense of Congress provisions related to the importance of the U.S. alliance with the Republic of Korea and threats to U.S. interests and national security posed by North Korea (see §1264, §1266 and §1270B of the House bill and §1268-§1269 of the Senate bill). The House bill would also require the President to provide a report to Congress on cooperation between the Government of Iran and the Democratic People's Republic of Korea on nuclear weapons programs, ballistic missile development, chemical and biological weapons development, and conventional weapons (§1288). The House bill also requires an assessment and report related to the defense of Hawaii from a North Korea ballistic missile attack (§1685).

Additional Information on North Korea

For additional background and information on U.S. –North Korea relations and policy options see CRS Insight IN10734, *North Korea's Long-Range Missile Test*, by Emma Chanlett-Avery, Dianne E. Rennack, and Steven A. Hildreth, CRS In Focus IF10246, *U.S.-North Korea Relations*, by Emma Chanlett-Avery, Jonathan R. Corrado, and Mark E. Manyin, CRS In Focus IF10467, *Possible U.S. Policy Approaches to North Korea*, by Emma Chanlett-Avery, Mark E. Manyin, and Jonathan R. Corrado, and CRS In Focus IF10472, *North Korea's Nuclear and Ballistic Missile Programs*, by Steven A. Hildreth and Mary Beth D. Nikitin.

Prohibitions on Transfer or Release of Detainees

Both the House and Senate bills include provisions that would extend until December 31, 2018 previously enacted provisions prohibiting or restricting the transfer or release of detainees at Guantanamo Bay, Cuba. Both include provisions that would extend the prohibition on the use of any funds available to DOD to transfer or release detainees to the U.S., its territories or possessions. However, the Senate bill includes a provision (§1035) that would allow for the temporary transfer of a detainee to the U.S. for necessary medical treatment that is not available at Guantanamo. Both chambers would also extend prohibitions on the use of any funds available to DOD to transfer or release detainees to Libya, Somalia, Syria, or Yemen. See §1022-1024 of the House bill and §1031-1035 of the Senate bill for the related provisions.

Additional Information on Detainee-related Issues

For additional background and information see CRS Report R42143, *Wartime Detention Provisions in Recent Defense Authorization Legislation*, by Jennifer K. Elsea and Michael John Garcia; CRS Legal Sidebar WSLG1501, *DOD Releases Plan to Close GTMO*, by Jennifer K. Elsea; and CRS Report R41156, *Judicial Activity Concerning Enemy Combatant Detainees: Major Court Rulings*, by Jennifer K. Elsea and Michael John Garcia.

Selected DOD Cyber Matters

Both the House and Senate bills include several provisions related to DOD-focused cybersecurity and cyberspace issues. Among such provisions in the House bill are the following:

- Section 1651 would require the Secretary of Defense to “promptly submit in writing [to Congress] notice of any sensitive military cyber operation and notice of the results of the review of any cyber capability that is intended for use as a weapon;”
- Section 1654 would require the Secretary of Defense to develop plans to increase regional cyber planning and enhance information operations to counter information operations and propaganda by China and North Korea;
- Section 1655 would require a report on the progress of the review of the possible termination of the dual-hat arrangement of the commander of U.S. Cyber Command.

The House Armed Services Committee report on H.R. 2810 also expresses concerns over cyber vulnerabilities, cyber workforce management (training and recruiting), cybersecurity risks of third-party providers (contractors), and the effectiveness of DOD’s reporting of cybersecurity incidents.

Senate Provisions

Subtitle C of Title XVI of the Senate bill also includes several provisions related to DOD cybersecurity matters, including the following:

- Section 1621 would establish, as a policy of the United States, that the U.S. should “employ all instruments of national power, including the use of offensive cyber capabilities, to deter if possible, and respond when necessary, to any and all cyber attacks or other malicious cyber activities that target United States interests....”
- Section 1622 would require the Secretary of Defense, in consultation with the Director of National Intelligence, the Attorney General, the Secretary of the

- Department of Homeland Security, and the Secretary of State, to complete a cyber posture review not later than March 1, 2018.
- Section 1625 would establish a Strategic Cybersecurity Program to conduct continual “red-teaming” reviews of weapon systems, offensive cyber systems, and critical infrastructure of DOD.
 - Section 1663 would require an update on the federal cyber scholarship-for-service program which awards graduate and undergraduate scholarships to students in cyber-security-related programs in return for which recipients agree to work in cybersecurity after graduation for a federal agency or other designated entity for a period equal to the length of the scholarship.
 - Section 6608 would require a GAO report on any critical telecommunications equipment manufactured by or incorporating information manufactured by a foreign supplier that is closely linked to a leading cyber threat actor.
 - Section 6211 would modify the existing requirement for an annual report on Russian military developments to include Russia’s information warfare strategies and capabilities. Section 6212 would require a separate annual report on Russian efforts to provide propaganda to members of the U.S. armed forces.
 - Section 1042 would establish a task force to integrate DOD organizations responsible for information operations, military deception, public affairs, electronic warfare, and cyber operations.
 - Section 902 would delineate the responsibilities of DOD’s Chief Information Warfare Officer.
 - Section 1630C would require a report on the applications of Blockchain technology and any efforts by foreign powers, extremist organizations or criminals to utilize these technologies.

Two amendments adopted during Senate floor consideration of the NDAA aim to address shortages in the cyber workforce:

- Section 515 would require DOD to prepare a plan to meet the demand for cyberspace career fields in the reserve components.
- Sections 1661-1664 would expand scholarship programs focused on cybersecurity.

Selected Government-Wide Information Technology Matters

The Senate bill incorporated the text of two previously introduced bills dealing with government-wide cybersecurity and information technology matters.

OPEN Government Act

Section 6012, the “Open, Public, Electronic, and Necessary Government Data Act” or (OPEN Government Act), previously had been introduced as S. 760. It would require federal government agencies to catalog and publish their data in formats that are machine usable and to provide a license for open use of that data. This provision mirrors recommendations made in the Report of the Commission on Evidence-Based Policymaking, created by P.L. 114-140.³⁸

³⁸ The final report of the Commission on Evidence-Based Policy, published September 7, 2017, is available at (continued...)

MGT Act

Section 1091-1094, comprising the “Modernizing Government Technology Act of 2017,” or MGT Act, previously had been introduced as S. 990 and was passed by the House on May 17, 2017 as H.R. 2227. These sections would authorize the creation of working capital funds in individual agencies, and a central fund managed by GSA to improve or replace legacy government information technology. The savings realized through modernizing the technology would be used to replenish the fund for future use.

Prohibition on the Use of Software Platforms Developed by Kaspersky Lab

The Senate also adopted an amendment (comprising Sections 11602 and 11603) that would prohibit the use by any federal agency of software products developed by Kaspersky Lab, a Russian firm selling anti-virus software. The Department of Homeland Security has banned the use of Kaspersky products by federal agencies because of allegations that the company is associated Russian espionage efforts.

As reported by the Senate Armed Services Committee, the prohibition on the use of Kaspersky products would have applied only to DOD.

Military Personnel Matters³⁹

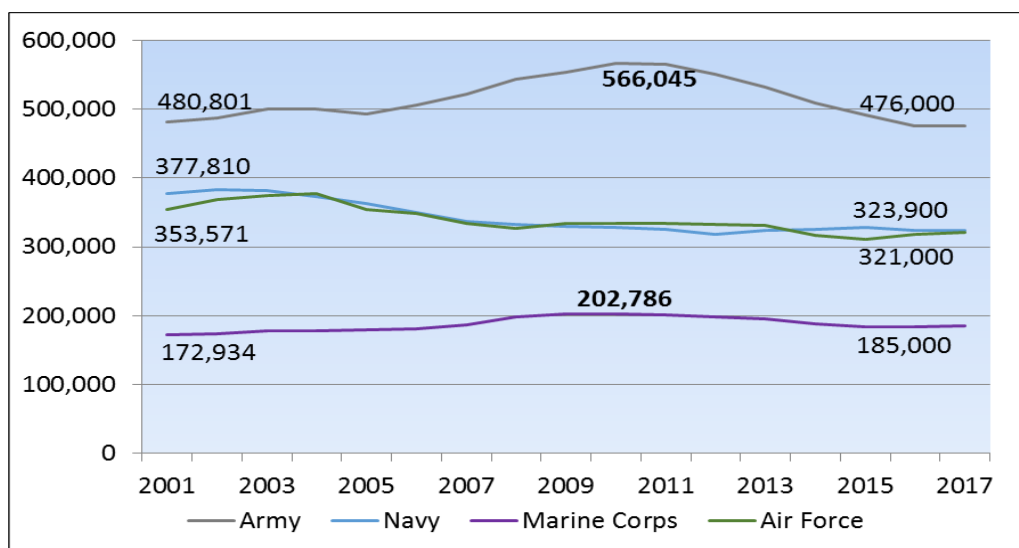
Continuing the basic thrust of a congressional initiative in the FY2017 NDAA, the Administration’s FY2018 budget request would sustain the currently authorized end-strength of the active-duty components of the Army and Marine Corps.⁴⁰ Active duty end strengths of those two services increased gradually in the years after 2001, but those increases accelerated between 2006 and 2010 in response to the tempo of operations in Iraq and Afghanistan. The active duty end-strengths of the two services peaked in 2011, the Army at slightly more than 566,000 and the Marine Corps at slightly less than 203,000. (See **Figure 6.**)

(...continued)

<https://www.cep.gov/cep-final-report.html>.

³⁹ This section authored by Lawrence Kapp (7-7609) and Kristy Kamarck (7-7783).

⁴⁰ The term “end strength” refers to the authorized strength of a specified branch of the military at the end of a given fiscal year (i.e., on September 30). Authorized strength means “the largest number of members authorized to be in an armed force, a component, a branch, a grade, or any other category of the armed forces.” the law also permits the service secretaries to exceed this maximum amount by up to 2%, and the Secretary of Defense to increase this maximum amount by up to 3%. 10 U.S.C. §115.

Figure 6. Active-duty End-Strength, 2001-2017

Sources: Defense Manpower Data Center and FY2017 NDAA (P.L. 114-328).

Note: This table includes actual end-strengths for FY2001 through FY2016 and authorized end-strength for FY2017.

Beginning with the budget for 2012, the Obama Administration proposed—and Congress generally approved—a drawdown in the two services, with the Army heading for a goal of 450,000 and the Marines toward a goal of 182,100.⁴¹ The FY2017 NDAA changed that trajectory, rejecting proposals by the Obama Administration to continue the Army and Marine Corps reductions. Instead, that bill increased the Army’s authorized end-strength to 476,000—an increase of 16,000 over the budget request—and increased the Marine Corps end-strength to 185,000, an increase of 3,000 over the request.

The FY2018 budget request would continue those limits for the Army and Marine Corps and would slightly increase the limits for the Navy and Air Force, increasing each service by 4,000 to a total of 327,900 for the Navy and 325,100 for the Air Force.

All told, the FY2018 request would increase the active-duty end-strength of the armed forces to 1,314,000, an increase of 6,000 over the FY2017 end-strength cap. By one widely-used rule-of-thumb, the annual pay and benefits for each additional active-duty service member cost about \$100,000. On that assumption, the requested end-strength increase would cost about \$600.0 million, annually.

The House and Senate bills each would authorize a larger number of Army personnel (active and reserve) than was requested and the Senate bill also would authorize a larger than requested Marine Corps. **Table 10** summarizes the end-strength authorizations proposed by the Administration and the levels that would be authorized in the House and Senate NDAA.

⁴¹ Department of Defense, *FY2013 Budget Request Overview*, February 2017, p 4-13.

Table 10. FY2018 Military End-Strength

Service Component	Request	House-passed H.R. 2810		Senate-passed H.R. 2810	
	end-strength	end-strength	change from request	end-strength	change from request
Army	476,000	486,000	+10,000	481,000	+5,000
Navy	327,900	327,900	—	327,900	—
Marine Corps	185,000	185,000	—	186,000	+1,000
Air Force	325,100	325,100	—	325,100	—
Total, Active Forces	1,314,000	1,324,000	+10,000	1,320,000	+6,000
Army National Guard	343,000	347,000	+4,000	343,500	+500
Army Reserve	199,000	202,000	+3,000	199,500	+500
Navy Reserve	59,000	59,000	—	59,000	—
Marine Corps Reserve	38,500	38,500	—	38,500	—
Air National Guard	106,600	106,600	—	106,600	—
Air Force Reserve	69,800	69,800	—	69,800	—
Total, DOD Selected Reserves	815,900	822,900	+7,000	816,900	+1,000
Coast Guard Reserve	7,000	7,000	—	7,000	—

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

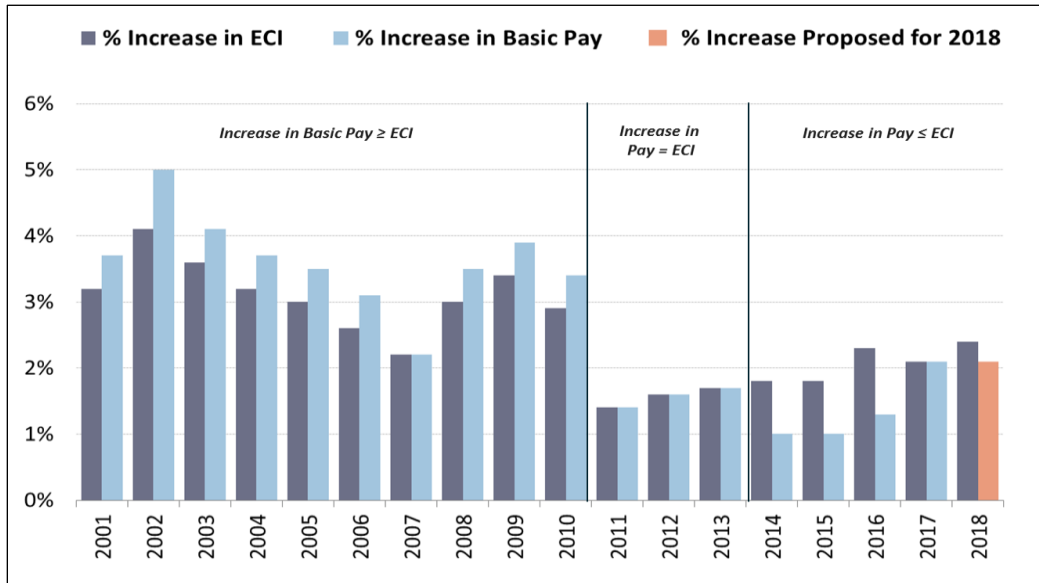
Military Pay Raise

The FY2018 budget request proposes a 2.1% increase in basic pay for military personnel instead of the 2.4% increase that would occur automatically. Title 37 of United States Code provides a permanent formula for an automatic annual increase in basic pay that is indexed to the annual increase in the Employment Cost Index (ECI) for “wages and salaries” of private industry workers.⁴²

In most years from 2001 through 2010, increases in basic pay were above ECI. From 2011 through 2014, raises were equal to ECI as per the statutory formula. From 2014 through 2016, the rate of military pay raises slowed as the President invoked his authority to set an alternative pay adjustment below the ECI, and Congress did not act to overturn those decisions. In 2017 the President proposed a pay raise that was lower than the ECI, but Congress included in the FY2017 NDAA a provision that set the pay raise at the ECI rate. The FY2018 budget would increase basic pay by 2.1%—the same rate as in FY2017—rather than 2.4% reflecting the ECI. The lower pay raise is estimated to save \$200.0 million in FY2018 (see **Figure 7**).

⁴² The automatic adjustment is equal to the increase in the ECI from the 3rd quarter of the third preceding year to the 3rd quarter of the second preceding year. For more information, see CRS In Focus IF10260, *Defense Primer: Military Pay Raise*, by Lawrence Kapp.

Figure 7. Increases in Basic Pay, 2001-2018



Sources: Bureau of Labor Statistics, Employment Cost Index; National Defense Authorization Acts for FY2001-FY2018.

Note: This table does not include other pay increases that were enacted through basic pay table reforms.

Military Sexual Assault and Sexual Harassment

Over the past decade, the issues of sexual assault and sexual harassment in the military have generated a good deal of congressional and media attention. In 2005, DOD issued its first department-wide sexual assault policies and procedures.⁴³ Between 2012 and 2017, DOD took a number of steps to implement its own strategic initiatives as well as dozens of congressionally mandated actions related to sexual assault prevention and response, victim services, reporting and accountability, and military justice.⁴⁴ House and Senate bills both include a number of provisions aimed at further improvements in these areas, including provisions to prohibit wrongful broadcast or distribution of intimate visual images (see §523 in the House bill and §532 in the Senate amendment).

FY2018 NDAA Provisions Related to Military Sexual Assault and Sexual Harassment

For additional background and a complete list of proposed FY2018 NDAA provisions related to military sexual assault and sexual harassment see CRS Report R44923, *FY2018 National Defense Authorization Act: Selected Military Personnel Issues*, by Kristy N. Kamarck, Lawrence Kapp, and Barbara Salazar Torreon.

Strategic Nuclear Forces⁴⁵

The Trump Administration has initiated a new review of the U.S. nuclear force posture and has pledged to continue most, if not all, previously planned nuclear modernization programs. Hence,

⁴³ DOD Directive 6495.01 and DOD Instruction 6495.02.

⁴⁴ For more information on congressional activity prior to 2013 see CRS Report R43168, *Military Sexual Assault: Chronology of Activity in Congress and Related Resources*, by Barbara Salazar Torreon.

⁴⁵ This section authored by Amy Woolf (7-2379) and Steve Hildreth (7-7635).

the FY2018 budget request would sustain the current plan to modernize each leg of the *triad* of long-range, nuclear-armed weapons over the course of the next decade.⁴⁶

See **Table 11** for information on the FY2018 budget request and authorization actions for selected strategic offense and long-range strike systems.

B-21 Long-Range Strike Bomber⁴⁷

The budget includes \$2.00 billion to continue development of the B-21 long-range bomber, which the Air Force describes as one of its top three acquisition priorities. Acquisition of the plane is slated to begin in 2023. The new bomber—like those currently in U.S. service—could carry conventional as well as nuclear weapons.⁴⁸ For the latter role, the budget includes \$451.3 million to continue development of the Long Range Standoff Weapon, a cruise missile that would replace the 1980s-vintage Air-Launched Cruise Missile (ALCM) currently carried by U.S. bombers. Both the House bill and the Senate amendment would support the President’s budget request for the B-21.

Columbia class Ballistic-missile Submarine⁴⁹

The Columbia class program, previously known as the Ohio replacement program (ORP) or SSBN(X) program, is a program to design and build a new class of 12 ballistic missile submarines (SSBNs) to replace the Navy's current force of 14 Ohio-class SSBNs. The Navy has identified the Columbia class program as the Navy's top priority program. The Navy wants to procure the first Columbia-class boat in FY2021. The Navy's proposed FY2018 budget requests \$842.9 million in advance procurement (AP) funding and \$1,041.7 million in research and development funding for the program. The budget also includes \$1.3 billion to continue refurbishing the Trident II (or D-5) missiles that arm the submarines. Both the House bill and the Senate amendment would support the President’s budget request for the Columbia class program and refurbishment of the Trident II missiles.

Land-based Ballistic Missiles⁵⁰

Also requested is \$215.7 billion to continue developing a new, land-based intercontinental ballistic missile (ICBM) that in 2029 would begin replacing the Minuteman III missiles currently in service. In general, the funding requests for modernization of the nuclear weapons force continue the established scope and pace of activity. However, those plans could change as a result of the Administration’s Nuclear Posture Review, currently underway. Both the House bill and the Senate amendment would support the President’s budget request for the Columbia class program.

⁴⁶ For background and further analysis see CRS Report RL33640, *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*, by Amy F. Woolf.

⁴⁷ For background and additional information see CRS Report R44463, *Air Force B-21 Raider Long-Range Strike Bomber*, by Jeremiah Gertler.

⁴⁸ DOD contends that, since the number of long-range bombers the Air Force operates is driven by their conventional mission, only a portion of the new bomber’s cost should be attributed to the nuclear force modernization.

⁴⁹ For background and additional information see CRS Report R41129, *Navy Columbia (SSBN-826) Class Ballistic Missile Submarine Program: Background and Issues for Congress*, by Ronald O'Rourke.

⁵⁰ For background and more information see CRS Report RL33640, *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*, by Amy F. Woolf and CRS Report R43832, *Russian Compliance with the Intermediate Range Nuclear Forces (INF) Treaty: Background and Issues for Congress*, by Amy F. Woolf.

Table II. Selected Strategic Offense and Long-range Strike Systems

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
Upgrades to Existing Bombers^a	Proc	–	\$362	–	\$336	p. 25	–	\$328	
	R&D	–	\$368	–	\$172	p. 26	–	\$368	
B-21 Bomber^b	Proc	–	–	–	–		–	–	
	R&D	–	\$2,004	–	\$2,004		–	\$2,004	
Long-Range Stand-Off Weapon	Proc	–	–	–	–		–	–	
	R&D	–	\$451	–	\$451		–	\$451	
Columbia-class Ballistic Missile Submarine^c	Proc	–	\$843	–	\$843	p. 21	–	\$843	p. 28
	R&D	–	\$1,042	–	\$1,042		–	\$1,042	
D-5 Trident II Missile Mod	Proc	–	\$1,144	–	\$1,144		–	\$1,144	
	R&D	–	\$135	–	\$135		–	\$135	
Ground-based Strategic Deterrent	Proc	–	–	–	–		–	–	
	R&D	–	\$216	–	\$216		–	\$216	
Conventional Prompt Global Strike^d	Proc	–	–	–	–		–	–	
	R&D	–	\$202	–	\$202		–	\$202	p. 313
Intermediate-Range Ground-Launched Cruise Missile^e	Proc	–	–	–	–		–	–	
	R&D	–	–	–	–		–	\$65	p. 304

Sources: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes:

- For more information see CRS Report R43049, *U.S. Air Force Bomber Sustainment and Modernization: Background and Issues for Congress*, by Jeremiah Gertler.
- For more information see CRS Report R44463, *Air Force B-21 Raider Long-Range Strike Bomber*, by Jeremiah Gertler.
- For more information see CRS Report R41129, *Navy Columbia (SSBN-826) Class Ballistic Missile Submarine Program: Background and Issues for Congress*, by Ronald O'Rourke.
- For more information see CRS Report R41464, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*, by Amy F. Woolf.
- For more information see CRS Report R43832, *Russian Compliance with the Intermediate Range Nuclear Forces (INF) Treaty: Background and Issues for Congress*, by Amy F. Woolf.

Ballistic Missile Defense Programs⁵¹

The United States has been developing and deploying ballistic missile defenses (BMD) to defend against enemy missiles since the late 1940s. In 1983, President Reagan announced an enhanced effort for BMD. Since the start of the Reagan initiative in 1985, BMD has been a key national security interest in Congress. It has appropriated over \$200 billion for a broad range of research and development programs and deployment of BMD systems.

See **Table 12** for information on the FY2018 budget request and authorization actions for selected ballistic missile defense systems.

U.S. Homeland Missile Defense

The United States has deployed a global array of networked ground, sea, and space-based sensors for target detection and tracking, an extensive number of ground- and sea-based hit-to-kill (direct impact) and blast fragmentation warhead interceptors, and a global network of command, control, and battle management capabilities to link those sensors with those interceptors. The FY2018 budget request includes a total of \$9.2 billion for defense against ballistic missiles, of which \$7.9 billion would be allocated to the Missile Defense Agency (MDA), more than three-quarters of which is for research and development.

A total \$904.9 billion is requested for the Ground-Based Mid-course Defense System (GMD) which, at the time the FY2018 budget was submitted, was projected to include 44 interceptor missiles deployed in Alaska and California by the end of 2017. These interceptors are intended to destroy long-range ballistic missiles launched toward U.S. territory from countries such as North Korea and Iran. An additional \$823.2 million is requested to develop improvements to the GMD system, including an upgraded interceptor missile and improved radar to be deployed in the mid-2020s. Both the House bill and the Senate amendment would provide additional funding for GMD efforts.

The House bill includes a provision (§1681) that would require that acquisition and budgeting for missile defense programs be transferred from the Missile Defense Agency to the military service departments in time for presentation of the FY2020 DOD budget request.

The Senate bill includes a provision (§1653) that requires DOD to develop a plan to significantly increase the number of GMD interceptors from 44 to 104 and to plan for any future capacity at any BMD site. The provision would further require MDA to rapidly advance the capability and reliability of the GMD system. If adopted, this effort would be one of the more significant changes to the U.S. BMD System since about 2002 with the decision to deploy the GMD system in Alaska and California.

Regional Missile Defense

For procurement and additional development work associated with the Theater High-Altitude Air Defense (THAAD) system, intended to intercept medium-range missiles, as well as aircraft, the Administration's budget includes a total of \$700.5 million. Both the House bill and the Senate

⁵¹ For background and additional analysis see CRS In Focus IF10541, *Defense Primer: Ballistic Missile Defense*, by Steven A. Hildreth, CRS Insight IN10655, *Current Ballistic Missile Defense (BMD) Issues*, by Steven A. Hildreth, CRS Insight IN10734, *North Korea's Long-Range Missile Test*, by Emma Chanlett-Avery, Dianne E. Rennack, and Steven A. Hildreth, and CRS Report RL33745, *Navy Aegis Ballistic Missile Defense (BMD) Program: Background and Issues for Congress*, by Ronald O'Rourke.

amendment would authorize an additional \$318.4 million in procurement funding for the program.

The Army’s Patriot system is the most mature BMD system. It was used in combat in the 1991 and 2003 wars against Iraq and is fielded around the world by the United States and other countries that have purchased the system. Patriot is a mobile system designed to defend areas such as military bases and air fields. Patriot works with THAAD to provide an integrated and overlapping defense against attacking missiles in their final phase of flight. The budget request included \$625.9 million for the Patriot system. Both chambers would substantially increase procurement funding for Patriot – the House bill would authorize an additional \$633.6 million and the Senate amendment would authorize an additional \$650.1 million.

In addition, a total of \$1.71 billion is requested for the anti-missile version of the Aegis system, developed by the Navy and deployed on ships and land-based sites in Poland and Romania. The Senate committee bill would fully fund the President’s procurement request for the Aegis system and the House bill would provide an additional \$58 million for the program. Both chambers’ FY2018 NDAs would recommend a minor reduction (\$6.4 million) to the RDT&E request.

Foreign BMD Participation

The United States has collaborated with a number of allies in missile defense programs since 1986. MDA actively participates in NATO activities to develop an integrated NATO BMD capability. Several allied countries have purchased Patriot systems and allies in the Middle East and East Asia are in various stages of acquiring THAAD. Japan has acquired Aegis BMD capabilities.

U.S. THAAD radars are deployed in Turkey, Israel, and Japan, and U.S. THAAD batteries are deployed in the Persian Gulf, Guam and South Korea. Since 1986, the United States has invested significantly in Israel’s missile defense programs and systems designed to protect against rocket attacks. The United States also has deployed a THAAD radar to Israel in 2008. Thus far, the United States has provided about \$2.5 billion for Israeli-designed missile defense programs, which include the Arrow systems designed to counter short- and medium-range ballistic missiles, Iron Dome (to counter short-range rockets), and David’s Sling (designed to counter longer range rockets).

Table 12. Selected Missile Defense Programs

amounts in millions of dollars

Program	Request	House-passed H.R. 2810			Senate-passed H.R. 2810				
		Qty	Amt	H. Rept	Qty	Amt	S. Rept		
Ground-based Missile Defense (incl. test)	Proc	–	–	–	–	–	–		
	R&D	–	\$904.9	–	\$1,277.9	p. 241	–	\$926.9	p.308
Improved Ground-based Missile Defense (interceptors and radar)	Proc	–	–	–	–	–	–	–	
	R&D	–	\$823.2	–	\$903.2	p. 285	–	\$903.2	
Aegis BMD/Aegis Ashore (incl. test)	Proc	34	\$683.7	45	\$741.7	p. 283	34	\$683.7	
	R&D	–	\$1,026.7	–	\$1,120.3		–	\$1,120.3	
THAAD	Proc	34	\$451.6	58	\$771.0	p. 281	58	\$771.0	p. 316

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
	R&D	–	\$248.9	–	\$248.9		–	\$248.9	
Patriot/PAC-3 & Mods	Proc	93	\$459.0	240	\$1,092.6	p. 281	240	\$1,109.1	p. 316
	R&D	–	\$166.9	–	\$166.9		–	\$256.9	
Israeli Cooperative Missile Defense Programs	Proc	–	\$0.0	–	\$0.0		–	\$240.0	p.73,
	R&D	–	\$105.4	–	\$613.0		–	\$373.8	p. 306
Iron Dome	Proc	–	\$42.0	–	\$92.0		–	\$92.0	p. 306
	R&D	–	–	–	–		–	–	

Sources: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

- a. For more information see CRS Report R44498, *National Security Space Launch at a Crossroads*, by Steven A. Hildreth.

Ballistic Missile Defense

For more information on ballistic missile defense programs, see CRS In Focus IF10541, *Defense Primer: Ballistic Missile Defense*, by Steven A. Hildreth.

Space and Space-based Programs and Activities⁵²

The President’s budget request included \$6.9 billion in funding for National Security Space activities which includes \$1.9 billion to continue acquiring satellite launchers under the Evolved Expendable Launch Vehicle (EELV) program and developing a replacement for the Russian-made rocket engine used since the early 2000s in some EELV launchers.⁵³ Both the House bill and the Senate amendment generally supported the President’s budget request for space programs (see **Table 13**). However, the Senate bill included a provision (§1604) that would prohibit the obligation of funding to maintain infrastructure, base and range support, sustainment commodities, and other activities associated with the Delta IV launch vehicle until the Secretary of the Air Force certifies that the Air Force plans to launch a satellite on a Delta IV launch vehicle within three years. In its report on the FY2018 NDAA, the Senate Armed Services Committee contended that, “[since] the Air Force no longer requires the Delta IV, the Air Force should not be responsible for the significant costs associated with maintaining the capability for the [National Reconnaissance Office].”⁵⁴

⁵² This section authored by Steve Hildreth (7-7635).

⁵³ For background on the EELV program – including information regarding concerns over U.S. reliance on the Russian-built RD-180 engine – see CRS Report R44498, *National Security Space Launch at a Crossroads*, by Steven A. Hildreth.

⁵⁴ S.Rept. 115-125, p. 295.

Table 13. Selected Space Programs
amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
Enhanced Expendable Launch Vehicle (EELV)^a	Proc	3	\$1,563.9	3	\$1,563.9	p.235,	3	\$1,536.9	
	R&D	–	\$297.6	–	\$297.6	p.269	–	\$297.6	p.318
Space-Based Infra-red System, High (SBIRS High)	Proc	0	\$1,113.4	0	\$1,057.4		0	\$1,054.8	
	R&D	–	\$382.8	–	\$382.8		–	\$395.6	
Advanced EHF Satellite	Proc	–	\$57.0	–	\$57.0		–	\$57.0	
	R&D	–	\$145.6	–	\$145.6	p.272	–	\$145.6	
Global Positioning System III	Proc	–	\$85.9	–	\$85.9		–	\$85.9	
	R&D	–	\$1,008.2	–	\$1,018.2		–	\$1,147.0	

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes:

- a. For more information see CRS Report R44498, *National Security Space Launch at a Crossroads*, by Steven A. Hildreth.

In addition to providing authorization of appropriations for space programs and activities, the House bill recommends two provisions (§1601-§1602) to reorganize the DOD national security space structure. According to committee’s report, the provisions are intended to

- create a Space Corps to “posture and properly focus” the military services to protect U.S. interests in space and provide combat-ready space forces;
- elevate national security space operations within the combatant command structure; and
- eliminate unnecessary bureaucracy through consolidation and elimination.⁵⁵

The Senate bill does not include provisions aimed at a general reorganization of the national security space structure. Moreover, it includes a provision (§6605) that would prohibit the creation of any corps independent of the existing service departments (such as the Space Corps proposed by the House).

The Senate bill also includes a provision that would require the Commander of Air Force Space Command to serve a term of at least six years (§1601) and a provision that establishes the position of Chief Information Warfare Officer who would have authority to establish policy for and direct all elements of the DOD in matters related to space and space launch systems (§902).

Overview of Ground Vehicle Programs⁵⁶

The House and Senate bills each would accelerate programs to modernize the Army’s existing suite of armored combat vehicles: M-1 Abrams tanks, M-2 Bradley troop carriers, and Stryker

⁵⁵ H.Rept. 115-200, p. 234-235.

⁵⁶ The section authored by Andrew Feickert (7-7673).

light armored cars. All three types of vehicles, which are slated to remain in service beyond FY2028, are being given various upgrades including self-protection systems intended to neutralize anti-armor missiles.

Both bills also would accelerate the procurement of long-range artillery rockets and of the Joint Light Tactical Vehicle (JLTV) slated for use by all services as a replacement for the 1980s-vintage High Mobility Multi-purpose Wheeled Vehicle (HMMWV).

The two bills each would authorize the amounts requested to continue a program to remount the Army’s Paladin self-propelled artillery piece on a new tracked chassis, based on the Bradley, and to continue acquisition of two new types of combat vehicles: the Army’s Armored Multi-Purpose Vehicle (AMPV), the Marine Corps’ Amphibious Combat Vehicle (ACV).

Army Modernization Issues

For additional background and analysis of Army modernization issues, see CRS Report R44366, *National Commission on the Future of the Army (NCFA): Background and Issues for Congress*, by Andrew Feickert.

See **Table 14** for information on the FY2018 budget request and authorization actions for selected ballistic missile defense systems.

Armored Multi-Purpose Vehicle (AMPV)

The Armored Multi-Purpose Vehicle (AMPV) is the Army's proposed replacement for the Vietnam-era M-113 personnel carriers, which are still in service in a variety of support capacities in armored brigade combat teams (ABCTs). While M-113s no longer serve as infantry fighting vehicles, five variants of the M-113 serve as command and control vehicles, general purpose vehicles, mortar carriers, and medical treatment and evacuation vehicles. The new vehicle would incorporate those capabilities on a Bradley chassis.

For FY2018, the Army requested \$647.4 million to continue developing the AMPV and to procure the first 107 vehicles, which the House and Senate versions of the NDAA each would authorize.

Amphibious Combat Vehicle (ACV)

Similarly, the Marine Corps is requesting \$340.5 million to continue developing and begin procurement of the Amphibious Combat Vehicle (ACV) to replace its 1970s-vintage amphibious assault vehicles. The service plans to field 204 wheeled vehicles (designated ACV 1.1) and then begin fielding a tracked vehicle designated ACV 1.2. As requested by the Administration, the House bill and Senate amendment each would authorize \$340.5 million to continue development of the new vehicles and to acquire the first 26 ACV 1.1s.

Table 14. Selected Ground Combat Systems and Tactical Vehicles Programs

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
M-I Abrams Tank (mod and upgrade)	Proc	56	\$1,105.3	85	\$1,651.3	p. 9	–	\$1,740.9	p. 13
	R&D	–	\$108.6	–	\$108.6		–	\$108.6	

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
M-2 Bradley Fighting Vehicle	Proc	93	\$674.9	93	\$785.9	p. 9	–	\$785.9	p. 13
	R&D	–	\$130.9	–	\$130.9		–	\$130.9	
M-109A6 Paladin self-propelled artillery	Proc	71	\$772.1	71	\$772.1	p. 9	–	\$772.1	
	R&D	–	\$46.7	–	\$46.7		–	\$46.7	
Guided MLRS and HIMARS rocket artillery	Proc	–	\$887.6	–	\$1,335.0		–	\$1,337.9	
	R&D	–	\$204.8	–	\$204.8		–	\$247.5	
Stryker Combat Vehicle	Proc	–	\$97.6	–	\$622.6		–	\$793.1	
	R&D	–	\$80.6	–	\$80.6		–	\$80.6	
Armored Multi-Purpose Vehicle^a	Proc	107	\$447.6	107	\$447.6		107	\$447.6	
	R&D	–	\$199.8	–	\$199.8		–	\$199.8	
Amphibious Combat Vehicle^b	Proc	26	\$161.5	26	\$161.5	p. 57	26	\$161.5	
	R&D	–	\$179.0	–	\$179.0		–	\$179.0	
Joint Light Tactical Vehicle (JLTV)^c	Proc	–	\$1,098.5	–	\$1,108.5		–	\$1,109.1	
	R&D	–	\$44.1	–	\$44.1		–	\$44.1	

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes:

- a. CRS Report R43240, *The Army's Armored Multi-Purpose Vehicle (AMPV): Background and Issues for Congress*, by Andrew Feickert.
- b. CRS Report R42723, *Marine Corps Amphibious Combat Vehicle (ACV) and Marine Personnel Carrier (MPC): Background and Issues for Congress*, by Andrew Feickert
- c. CRS Report RS22942, *Joint Light Tactical Vehicle (JLTV): Background and Issues for Congress*, by Andrew Feickert.

Overview of Shipbuilding Programs⁵⁷

In early 2016, when the Navy's long-term goal was to sustain a fleet of 308 ships, it projected a budget request for FY2018 that would fund eight new ships. Toward the end of 2017, the Navy adopted a new force goal of 355 ships – a total similar to the 350-ship fleet President Trump had called for during the 2016 election campaign. The House bill and the Senate amendment both include a provision (coincidentally designated §1016, in each case) to declare it to be U.S. policy to have available, as soon as practicable, a force of 355 ships.

The Navy's proposed FY2018 budget, as amended on May 24, 2017, requests the procurement of nine new ships, including one *Gerald R. Ford* (CVN-78) class aircraft carrier, two *Virginia*-class attack submarines, two DDG-51 class destroyers, two Littoral Combat Ships (LCSs), one TAO-205 class oiler, and one towing, salvage, and rescue ship. With one exception, these are the same

⁵⁷ This section authored by Ronald O'Rourke (7-7610).

ships that the Navy had projected a year earlier it would request for FY2018. The difference is that the Navy had projected a request for one LCS in FY2018 rather than two.

According to separate analyses by both CRS and CBO, Navy's goal of a 355-ship fleet would require an increase in annual shipbuilding funds. The House bill and the Senate amendment each would authorize similar additions to the FY2018 shipbuilding request.

Navy Shipbuilding Plans and Budgets

For additional background and analysis of projected Navy force structure and shipbuilding budgets, see CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke and Congressional Budget Office, *Costs of Building a 355-Ship Navy*, April 2017.

See **Table 15** for summary information on the FY2018 budget request and authorization actions for selected combatant ships. See **Table 16** for summary information on the FY2018 budget request and authorization actions for selected support and amphibious assault ships.

In general, the House bill and the Senate amendment each would authorize funds to accelerate procurement of attack submarines, Aegis destroyers, and vessels designed to support amphibious assaults. They diverge in their respective treatments of the LCS program, with the House bill authorizing funds for three of the ships while the Senate bill would authorize one, disregarding the Administration's belated request to fund two LCSs in FY2018.

Nuclear-powered Aircraft Carrier Programs

A total of \$4.46 billion is requested to continue acquisition of *Gerald R. Ford*-class nuclear-powered aircraft carriers. This includes a \$2.6 billion increment to continue work on the second ship of the class, designated CVN-79 (slated for delivery in 2024 at a total cost of \$11.4 billion) and \$1.9 billion to begin work on a third ship of the class, designated CVN-80 (slated for delivery in 2027).⁵⁸ The Senate bill would approve the request while the House bill would approve a total of \$3.74 billion on grounds that the remainder of the funds requested would not be needed during FY2018. The Senate amendment also includes a provision (§125) limiting to \$12.0 billion the cost of any aircraft carrier procured after the procurement of CVN-79.

The two bills diverge in a similar way regarding the request for \$1.60 billion to continue refueling and modernizing the carrier *George Washington* and to continue procurement of equipment that would be used in modernizing and refueling the carrier *John C. Stennis*, an operation slated to begin in 2021. The Senate amendment would authorize the amount requested for the refueling operations while the House bill would make a net reduction of \$423.3 million, largely on grounds that the funds would not be needed in FY2018.

⁵⁸ For background and additional information see CRS Report RS20643, *Navy Ford (CVN-78) Class Aircraft Carrier Program: Background and Issues for Congress*, by Ronald O'Rourke.

Table 15. Selected Shipbuilding and Modernization Programs: Combatant Ships

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
Ford-class Aircraft Carrier^a	Proc	1	\$4,441.8	1	\$3,741.8	p. 38	1	\$4,141.8	p. 9, 15
	R&D	–	\$138.1	–	\$158.1		–	\$138.1	p. 59
Refuelling and Mods to Existing Nuclear-powered Carriers	Proc	–	\$1,604.9	–	\$1,181.6		–	\$1,604.9	
	R&D	–	\$75.9	–	\$75.9		–	\$75.9	
Virginia-class attack submarine^b	Proc	2	\$5,225.9	2	\$6,168.9	p. 39	2	\$6,399.1	p. 7, 15
	R&D	–	\$192.9	–	\$192.9		–	\$192.9	
DDG-51-class Aegis destroyer^c	Proc	2	\$3,589.4	3	\$5,531.2	p. 39	3	\$5,448.4	p. 7, 16, 36
	R&D	–	–	–	–		–	–	
Mods to Existing Aegis Cruisers and Destroyers	Proc	–	\$909.5	–	\$1,008.5		–	\$909.5	
	R&D	–	–	–	–		–	–	
Littoral Combat Ship^d	Proc	1	\$636.1	3	\$1,669.1	p. 23	1	\$596.1	p. 17
	R&D	–	\$184.5	–	\$184.5	p. 59	–	\$177.5	p. 60
Littoral Combat Ship Modules	Proc	–	\$143.5	–	\$177.5	p.23	–	\$172.4	p. 18
	R&D	–	\$116.9	–	\$116.9		–	\$116.9	

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.**Notes:**

- For more information see CRS Report RS20643, *Navy Ford (CVN-78) Class Aircraft Carrier Program: Background and Issues for Congress*, by Ronald O'Rourke.
- For more information see CRS Report RL32418, *Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress*, by Ronald O'Rourke.
- For more information see CRS Report RL32109, *Navy DDG-51 and DDG-1000 Destroyer Programs: Background and Issues for Congress*, by Ronald O'Rourke.
- For more information see CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background and Issues for Congress*, by Ronald O'Rourke.

Table 16. Selected Shipbuilding Programs: Support and Amphibious Assault Ships

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
T-AO 125-class Refueling and Supply Ship	Proc	1	\$541.1	1	\$541.1		1	\$541.1	
	R&D	–	\$2.0	–	\$2.0		–	\$2.0	
LHA-class Amphibious	Proc	–	\$1,710.9	–	\$1,210.9	p. 21	–	\$1,710.9	p. 24

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
Assault Ship (Helicopter Carrier)	R&D	-	-	-	-		-	-	
LPD-17-class Amphibious Assault Transport	Proc	-	-	1	\$1,786.0	p. 8, 17	-	-	p. 8, 17
	R&D	-	\$9.6	-	\$9.6		-	\$9.6	
L(X)-class Amphibious Assault Transport^a	Proc	-	-	-	\$100.0	p. 8, 17	-	\$1,000	p. 8, 17
	R&D	-	-	-	-		-	-	
Expeditionary Sea Base	Proc	-	-	1	\$636.0		1	\$661.0	p. 18
	R&D	-	-	-	-		-	-	
Ship-to-Shore Connector (air-cushion landing craft)	Proc	3	\$212.6	8	\$524.6		8	\$509.6	p. 18
	R&D	-	-	-	-		-	-	

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes:

- a. For more information see CRS Report R43543, *Navy LX(R) Amphibious Ship Program: Background and Issues for Congress*, by Ronald O'Rourke.

Selected Aviation Programs

The budget request includes \$40.3 billion for acquisition of manned and unmanned aircraft. Of that amount, \$528 million is designated as OCO funding to replace 22 unmanned aerial vehicles (UAVs) and two Apache helicopters that were destroyed or damaged beyond repair in missions related to operations in Afghanistan and the Middle East.

See **Table 17** for summary information on the FY2018 budget request and authorization actions for selected fighter and attack aircraft. See **Table 18** for summary information on the FY2018 budget request and authorization actions for selected tanker, transport and cargo aircraft. See **Table 19** for summary information on the FY2018 budget request and authorization actions for selected patrol and surveillance aircraft (including UAVs). See **Table 20** for summary information on the FY2018 budget request and authorization actions for selected helicopters and tilt-rotor aircraft.

Air Force Aircraft Investment Plans

For more information on the Air Force's plan for development and procurement of aviation systems, see CRS Report R44305, *The Air Force Aviation Investment Challenge*, by Jeremiah Gertler.

*Fighter and Attack Aircraft*⁵⁹

The budget request includes \$9.0 billion for the procurement of 70 F-35 Joint Strike Fighters, including 46 Air Force F-35As, 20 F-35Bs for the Marine Corps equipped for short takeoff and vertical landing (STOVL), and 4 Navy F-35Cs, equipped for carrier operations. The request also includes \$135 million to modify F-35s already in service and \$542 million for F-35 spare parts. The request also includes nearly \$1.2 billion to continue development of the three versions of the aircraft and of the F135 engine that powers it.⁶⁰ Both chambers proposed additions to the President's budget request for the F-35 program: the House bill would add 17 aircraft and the Senate bill would add 24.

In addition to heavily investing in the JSF program, the Air Force continues investments in modification of in-service fighter aircraft—often referred to as legacy aircraft—with 23% of its aircraft procurement budget (\$3.5 billion) allocated to the effort. Modifications include continued modernization of legacy fighters such as F-22A, F-15, and F-16s. The Air Force budget maintains the A-10 fleet at its FY2017 inventory levels (143 active, 85 National Guard, 55 reserve). The House bill and the Senate amendment would both fully support the President's budget request for these aircraft. Both bills would also provide an additional \$103.0 million for procurement of additional replacement wings for A-10 aircraft (included on the Air Force's UPL).⁶¹

To compensate for the slower-than-planned fielding of the JSF, the budget request includes funds to mitigate a shortfall in the Navy's fleet of strike fighters. The Administration requested \$1.3 billion for procurement of 14 Navy F/A-18s and an additional \$1.3 billion for modifications and upgrades to the existing fleet. The budget does not indicate F/A-18 purchases in future budget years. However, the Navy's Unfunded Priority List included an additional 10 F/A-18s as the service's top priority should additional funding be available.

Both the House and Senate bills generally supported the President's budget request for the F/A-18 program and took note of the UPL, recommending procurement of additional aircraft. The House bill would authorize procurement of 8 additional F/A-18s (22 total) and the Senate amendment would authorize an additional 10.

In addition, the SASC expressed concern that “continued reliance on the A-10, B-1, B-52, F-16, and F-15E fleets to conduct armed reconnaissance and close air support (CAS) missions in Afghanistan, Iraq, Syria, and other regions significantly reduces airframe lifespans due to utilization rates that are much higher than planned and programmed.”⁶² The committee recommended an additional \$1.2 billion be provided to the Air Force for the acquisition of a light attack/observation aircraft (OA-X) fleet.

⁵⁹This section authored by Jeremiah (J.J.) Gertler (7-5107).

⁶⁰ For background and additional information see CRS Report RL30563, *F-35 Joint Strike Fighter (JSF) Program*, by Jeremiah Gertler.

⁶¹ For additional background and information see CRS Report R44305, *The Air Force Aviation Investment Challenge*, by Jeremiah Gertler.

⁶² S.Rept. 115-125, p. 20.

Table 17. Selected Fighter and Attack Aircraft Programs

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
F/A-18	Proc	14	\$1,253.1	22	\$1,844.3		24	\$1,992.1	
	R&D	–	–	–	–		–	–	
F/A-18 mods	Proc	–	\$1,043.7	–	\$1,092.2	p. 58, 62	–	\$1,124.8	
	R&D	–	\$224.5	–	\$213.5		–	\$224.5	
F-35 (all variants)^a	Proc	70	\$8,982.0	87	\$10,624.6	p. 30, 41	94	\$12,067.6	p. 11
	R&D	–	\$554.7	–	\$554.7		–	\$885.7	p. 61,65
F-35 mods	Proc	–	\$135.0	–	\$135.0	p. 30	–	\$135.0	
	R&D	–	\$623.4	–	\$623.4		–	\$623.4	p. 47
F-22 mods	Proc	–	\$282.4	–	\$282.4	p. 29	–	\$282.4	
	R&D	–	\$624.5	–	\$624.5		–	\$624.5	
F-15 mods	Proc	–	\$417.2	–	\$417.2	p. 28	–	\$417.2	p. 10
	R&D	–	\$530.1	–	\$530.1		–	\$530.1	
F-16 mods	Proc	–	\$203.9	–	\$203.9	p. 29	–	\$203.9	
	R&D	–	\$246.6	–	\$271.6		–	\$271.6	
A-10 mods^b	Proc	–	\$6.0	–	\$109.0	p. 24	–	\$109.0	
	R&D	–	\$17.5	–	\$17.5		–	\$17.5	
OA-X (attack/observati on aircraft)	Proc	–	–	–	–		–	\$1,200.0	p. 20
	R&D	–	–	–	–	p. 72	–	–	

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes:

- For more information see CRS Report RL30563, *F-35 Joint Strike Fighter (JSF) Program*, by Jeremiah Gertler.
- For more information see CRS Report R43843, *Proposed Retirement of A-10 Aircraft: Background in Brief*, by Jeremiah Gertler.

Tanker, Cargo, and Transport Aircraft

The KC-46A aerial refueling tanker program continues into the fourth year of low-rate initial production (LRIP), with the Administration requesting \$3.1 billion for the procurement of 15 additional aircraft and support of continued development and testing. The House and Senate versions of the bill each would add two aircraft to the President's budget request for the KC-46A (authorizing a total of 17). However, the House bill would authorize none of the \$93 million requested for RDT&E funding on grounds that the program has not spent funds appropriated in prior budgets. See **Table 18**.

The President's budget request included \$1.7 billion in procurement funding for the C-130 aircraft program (all variants), which includes the procurement of nine aircraft as well as

modifications to the in-service fleet. Both the House and Senate-committee recommended substantial increases in procurement quantities – the House bill would authorize a total of \$2.9 billion (adding 11 aircraft) and the Senate amendment would authorize \$3.4 billion (adding 17 aircraft).

Both chambers also supported the President’s budget request for research, development, test and evaluation funding for an Air Force One replacement (formally known as the Presidential Aircraft Recapitalization program) and the VH-92 Presidential helicopter. However, the House bill included a provision (§211) that would place cost controls and require quarterly briefings to the HASC on efforts to control costs related to the program.

Table 18. Selected Tanker, Cargo, and Transport Aircraft Programs

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
KC-46 tanker	Proc	15	\$2,545.7	17	\$2,945.7	p. 32	17	\$2,945.7	
	R&D	–	\$93.8	–	\$0		–	\$93.8	
Air Force One replacement	Proc	–	–	–	–		–	–	
	R&D	–	\$434.1	–	\$434.1		–	\$434.1	
VH-92 Presidential Helicopter	Proc	–	–	–	–		–	–	
	R&D	–	\$451.9	–	\$451.9		–	\$451.9	
C-130 (all variants)^a	Proc	–	\$1,695.4	–	\$2,916.6	p. 26	–	\$3,443.9	p. 21, 27
	R&D	–	\$75.6	–	\$75.6		–	\$57.5	p. 68

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes:

- a. For more information see CRS Report R43618, *C-130 Hercules: Background, Sustainment, Modernization, Issues for Congress*, by Jeremiah Gertler and Timrek Heisler.

Patrol and Surveillance Aircraft

The President’s budget request also invests in several patrol and surveillance aircraft (see **Table 19**). Both chambers generally supported the request but also recommended additional funding for procurement of P-8 Poseidon aircraft for the Navy and an additional \$39.4 million for RQ-4 Global Hawk modifications. The House bill would further increase funding for the RQ-4 program by \$18.3 million to support continued modifications of existing RQ-4 aircraft. The House bill also included a provision (§1034) that would repeal §133 of the FY2012 NDAA (P.L. 112-81) which limited the Secretary of the Air Force in taking actions to retire U-2 aircraft.

Table 19. Selected Patrol and Surveillance Aircraft Programs

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
P-8 Poseidon	Proc	7	\$1,385.6	10	\$1,892.1		13	\$2,396.6	
	R&D	–	\$193.5	–	\$193.5		–	\$193.5	
E-2D Advanced Hawkeye	Proc	–	\$835.9	–	\$1,027.7		–	\$835.9	
	R&D	–	\$292.5	–	\$292.5		–	\$292.5	
AWACS mods	Proc	5	\$164.8	7	\$164.8	p. 27	5	\$164.8	p. 27
	R&D	–	\$151.7	–	\$151.7		–	\$151.7	
JSTARS replacement	Proc	–	–	–	–		–	–	p. 32
	R&D	–	\$417.2	–	\$417.2	p. 71	–	\$417.2	
RQ-4 Global Hawk/ MQ-4C Triton/ NATO AGS	Proc	–	\$750.1	–	\$807.8	p. 18, 35	–	\$789.5	
	R&D	–	\$573.1	–	\$573.1		–	\$573.1	
MQ-9 Predator	Proc	–	\$750.9	–	\$756.1	p. 32, 41	–	\$750.9	
	R&D	–	\$239.3	–	\$239.3		–	\$252.3	p. 75

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes: For more information see CRS Report R44108, *U.S. Command and Control and Intelligence, Surveillance, and Reconnaissance Aircraft*, by Jeremiah Gertler and Jeffrey Nelson.

Helicopters and Tilt-Rotor Aircraft

Both chambers generally supported the request and recommended additional funding for the AH-64 Apache program, CH-47 Chinook procurement, UH-1/AH-1 procurement and V-22 Osprey procurement (see **Table 20**). The House bill also recommended additional funding for AH-64 modifications and UH-60 Blackhawk procurement (8 additional aircraft). The Senate amendment would authorize an additional \$279.2 million to procure 2 additional CH-53Ks.

Table 20. Selected Helicopters and Tilt-Rotor Aircraft Programs

amounts in millions of dollars

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
AH-64 Apache	Proc	65	\$1,139.2	73	\$1,694.3		76	\$1,692.7	p. 12
	R&D	–	\$60.0	–	\$60.0		–	\$60.0	
AH-64 mods	Proc	–	\$238.1	–	\$382.9		–	\$238.1	
	R&D	–	–	–	–		–	–	
UH-60 Blackhawk	Proc	84	\$1,101.1	92	\$1,404.2		84	\$1,101.1	

Program		Request		House-passed H.R. 2810			Senate-passed H.R. 2810		
		Qty	Amt	Qty	Amt	H. Rept	Qty	Amt	S. Rept
	R&D	–	\$34.4	–	\$43.7		–	\$34.4	
CH-47 Chinook	Proc	6	\$220.4	14	\$574.9		10	\$467.0	
	R&D	–	\$194.6	–	\$194.6		–	\$194.6	
CH-53K	Proc	4	\$714.6	4	\$714.6		6	\$994.8	
	R&D	–	\$340.8	–	\$340.8		–	\$340.8	
UH-1/AH-1	Proc	22	\$720.5	27	\$871.5		29	\$941.0	
	R&D	–	\$61.3	–	\$61.3		–	\$61.3	
V-22 Osprey	Proc	6	\$995.0	10	\$1,345.6		12	\$1,557.5	p. 8, 15
	R&D	–	\$193.9	–	\$208.9		–	\$207.9	
Search and Rescue helicopter	Proc	–	–	–	–		–	–	
	R&D	–	\$354.5	–	\$354.5		–	\$354.5	p. 31

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Acquisition Reform

Since the 114th Congress, the House and Senate Armed Services Committees have worked to reform the Department of Defense’s acquisition processes. This focus continues in the House and Senate versions of H.R. 2810. The bills address several major areas of shared interest:

Commercial Items

Many provisions in the two bills expand the range of what may be considered commercial items, thus exempting them from certain federal procurement regulations. Intending to make buying commercial products easier, the House included a provision in its bill (§801) to “establish a program to procure commercial products through online marketplaces for purposes of expediting procurement and ensuring reasonable pricing of commercial products.” The Senate’s subtitle E, “Provisions Related to Commercial Items,” specifically includes several items (§851-855) intended to expand the range of products DOD could acquire under these less restrictive procedures.

Contracts for Services

Both chambers emphasize oversight and visibility of service contracts and seek to better evaluate the services contracts DOD lets. In addition, the Senate amendment would create a temporary authority for DOD to enter into multiyear services contracts for up to 15 years instead of the current limit of 5 years (§819) and would echo the emphasis on commercial products by requiring the Secretary of Defense to list industries in which there are significant numbers of commercial services providers (§820). Also of note, the House bill contains a provision limiting the total amount spent on services contracts to the amount requested in FY2010 (§870). This limit was enacted from FY2012 to FY2015. Although House NDAA bills in earlier years carried an extension in FY2016 and FY2017, neither provision was enacted.

Intellectual Property

The House and Senate bills each would bolster DOD's role in acquiring intellectual property rights for the goods and services it procures. DOD seeks intellectual property rights to ensure the department does not become beholden to a single contractor.⁶³ See §812 and §813 in the House bill, and §881, §892, and §899 in the Senate amendment for related provisions.

“Other Transaction” (OT) Authority

Both bills seek to increase DOD's use of *other transaction* (OT) authority. An OT is a special vehicle that allows DOD, using the authority found in 10 U.S.C. §2371, to enter into transactions with private organizations for basic, applied, and advanced research projects.⁶⁴ An OT, in practice, is defined in the negative: an OT is not a contract, grant, or cooperative agreement, and its advantages come mostly from OTs not being subject to certain procurement statutes and acquisition regulations. The Senate amendment includes a subtitle dedicated to such transactions. The Senate amendment (§871) and House bill (§855) would both extend this authority to include developing prototypes. The Senate amendment would also address education and training on OT (§872), and the use of OT for science and technology projects (§873) and for research and development programs (§874).

Acquisition System Management

Following on previous efforts to reform acquisition process management, both bills again propose changing parts of the process. The bills also address data analytics, software acquisition, and revisions to previous reforms. The Senate amendment (§804) would direct that the defense-specific acquisition regulations adopt language stating the purpose of the defense acquisition system and would require a report on whether Special Operations Command should have the same acquisition authorities as the military departments (§806). The House bill (§811) would insert new requirements to consider “reliability and maintainability” when DOD designs weapon systems and would codify use of operating and support costs in evaluating major programs at every stage of acquisition (§852).

Bid Protests to GAO

The Senate amendment includes a provision (§821) that would modify the procedure by which a bidder can protest the bidder's loss of a competition on procedural grounds. In a case in which GAO denies every point of a protest, the Senate provision would require the party filing the protest to pay the cost of processing the protest, if that party had revenues in excess of \$100.0 million during the previous year.

FY2018 Acquisition Reform Initiatives

For more background and information see CRS Report R44920, *Select Acquisition Reform Provisions in the House and Senate Versions of the FY2018 National Defense Authorization Act*, by Russell Rumbaugh.

⁶³ “Guidance: Intellectual Property Strategy,” Department of Defense, August 2014, http://bbp.dau.mil/docs/IP_Strategy_Brochure_FINAL_em.pdf.

⁶⁴ “Use of ‘Other Transaction’ Agreements Limited and Mostly for Research and Development Activities,” Government Accountability Office, GAO-16-209, January 2016.

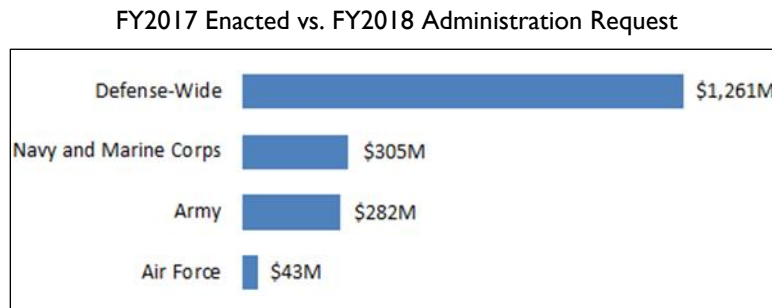
Military Construction Budget Request⁶⁵

For military construction (MILCON) and family housing in FY2018, the Administration has requested \$9.8 billion in the base budget and \$600 million in OCO funds, for a total of \$10.4 billion. This compares with \$8.1 billion appropriated (\$7.7 base and \$420 million OCO) for these programs in FY2017.

DOD's proposed increase in military construction funds would continue an upward trend that began in FY2015. The Department has indicated it would use the additional amounts in FY2018 to address priorities that include the establishment of new missions at a location (such as the arrival of Joint Strike Fighters at various bases); support to combatant commands (such as improvements to existing air bases); medical facility recapitalization (at Fort Bliss, Fort Leonard Wood, Walter Reed, and Rhine Ordnance Barracks); and quality of life improvements (such as the replacement of schools for service members' dependents).

The two largest projects the Administration has proposed would fund construction of a replacement National Geospatial-Intelligence Agency (NGA) complex in St. Louis, MO (\$381 million) and a National Security Agency operations facility for more than 3,000 personnel at Fort George G. Meade, MD (\$314 million). Funding for the NSA and NGA projects accounts for almost a quarter of the President's overall military construction request. Compared with the military departments, the Defense-Wide account would receive a larger increase in funding (\$1.3 billion over the FY2017 appropriation), though each of the services also would receive some additional amounts (see **Figure 8**).

Figure 8. Proposed Changes in the Military Construction Spending, by Military Department



Source: Department of Defense, FY2018 Military Construction Budget Request

Overseas Contingency Operations

The Administration has requested \$638 million in OCO funds, an increase of \$218 million over FY2017 enacted amounts. Most of this increase would provide for European Reassurance Initiative construction projects within the OCO account. Funding for ERI projects represents roughly half of the Administration's entire OCO request. Within the ERI request, the largest amounts for military construction in specific countries would fund projects in Luxembourg, Hungary, and Slovakia.

⁶⁵ This section authored by Christopher Mann (7-0451).

Table 21. FY2018 European Reassurance Initiative Military Construction Request
amounts in millions of dollars

Country	Request	House-passed H.R. 2810	Senate-passed H.R. 2810
ESTONIA	\$13.9	\$13.9	\$13.9
HUNGARY	\$55.4	\$0.0	\$55.4
ICELAND	\$14.4	\$14.4	\$14.4
LATVIA	\$3.9	\$3.9	\$3.9
LUXEMBOURG	\$67.4	\$67.4	\$67.4
NORWAY	\$10.3	\$0.0	\$10.3
ROMANIA	\$3.0	\$3.0	\$3.0
SLOVAKIA	\$46.0	\$0.0	\$46.0
WORLDWIDE UNSPECIFIED	\$92.7	\$92.7	\$92.7
Total	\$306.9	\$195.2	\$306.9

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

The Administration has requested an additional \$331 million in non-ERI, OCO appropriations for a relatively small number of capital intensive projects. These include the construction of a new airfield in Jordan (\$143 million), an enlisted barracks at Guantanamo Bay (\$115 million), and security upgrades at Incirlik Air Base in Turkey (\$22 million).

Family Housing

Family Housing funds within the MILCON appropriation have generally remained level since FY2014, following a period of steep decline with the privatization of most of the DOD's government-owned housing within the United States.⁶⁶ The Administration has requested \$1.4 billion in Family Housing appropriations for FY2018, an increase of \$130 million over FY2017 enacted amounts.

Base Realignment and Closure

The Administration has requested authorization to conduct a Base Realignment and Closure (BRAC) round in 2021. DOD has recommended revising the legislation to include a requirement that the Secretary of Defense certify that the elimination of excess infrastructure as a primary objective, and that net savings would be achieved within five years of implementation. As further justification for a new BRAC round, senior officials have cited the need to revise stationing requirements to account for anticipated changes in force structure. Provisions in the Senate and House versions of the FY2018 NDAA (§2702, in each case) would prohibit an additional Base Realignment round.⁶⁷

⁶⁶ At enduring installations overseas, family housing funds still support more than 36,000 units.

⁶⁷ Section 2702 in both the House bill and Senate amendment.

Authorization of FY2018 Military Construction Projects

In FY2018, congressional committees have recommended altering the Administration's MILCON topline request by less than 2% overall. The Senate recommended an increase of \$700 million to the President's proposed topline. The Senate would also move \$300 million of the Administration's OCO request — for ERI construction — into the base account. See **Table 22**.

Table 22. Proposed Authorization for Selected FY2018 Military Construction and Family Housing Activities

amounts in millions of dollars

Department	Request	House-passed H.R. 2810	Senate-passed H.R. 2810
Army	\$1,734.0	\$1,865.4	\$1,863.6
Navy & Marine Corps	\$2,093.9	\$2,144.2	\$2,479.9
Air Force	\$2,367.2	\$2,305.2	\$2,730.2
Defense-wide ^a	\$3,330.8	\$2,978.7	\$2,829.4
BRAC	\$255.9	\$290.9	\$255.9
OCO	\$638.1	\$636.9	\$331.2
Total	\$10,420.0	\$10,221.3	\$10,490.2

Source: H.R. 2810, H.Rept. 115-200, S. 1519, and S.Rept. 115-125.

Notes: Totals may not reconcile due to rounding.

a. Includes the NATO Improvement Program.

Among the largest changes the House bill would make to the President's request are: a decrease by \$181 million for a replacement National Geospatial-Intelligence Agency (NGA) complex in St. Louis, MO (\$381 million proposed; reduced to \$200 million); and a reduction by \$130 million in a Presidential Aircraft Recapitalization Complex at Joint Base Andrews, in Maryland (\$254 million proposed, reduced to \$124 million).⁶⁸ In its report accompanying H.R. 2810, the House Armed Services Committee expressed support for fully funding these projects over time, but said it was authorizing the amounts that the lead agency on each project could spend in FY2018.

Like the House version of the FY2018 NDAA, the Senate amendment would significantly reduce funds for the construction of a replacement National Geospatial-Intelligence Agency (NGA) complex in St. Louis, MO (\$381 million proposed; reduced to \$50 million); and a Presidential Aircraft Recapitalization Complex at Joint Base Andrews, in Maryland (\$254 million proposed, reduced to \$58 million). The Senate version of the bill would authorize less than the Administration requested for a new hospital at Fort Leonard Wood, in Missouri (\$250 million proposed; reduced to \$50 million).

The House bill would also remove roughly \$112 million in OCO-ERI funded projects in Hungary, Norway, and Slovakia. House authorizers fully funded the remaining \$195 million for OCO-ERI projects in Estonia, Iceland, Latvia, Romania, and unspecified locations worldwide.

⁶⁸ The project would fund an aircraft complex to maintain and service a replacement for Air Force One, a militarized Boeing 747 (VC-25A) that transports the President on official travel and serves as a mobile command center. The current aircraft is to reach the end of its life cycle by 2020. Its intended replacement, a Boeing 747-8, is larger and heavier than its predecessor.

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