



September 2016

BULK FUEL

Actions Needed to Improve DOD's Fuel Consumption Budget Data

Accessible Version

GAO Highlights

Highlights of [GAO-16-644](#), a report to congressional committees.

Why GAO Did This Study

DOD and the military services estimate total funding needs for fuel in annual budget requests by using planned consumption (measured in barrels of fuel) and a standard price per barrel set by DOD.

Senate Report 114-49, accompanying a bill for the National Defense Authorization Act for fiscal year 2016, included a provision for GAO to review DOD's approach to estimating fuel consumption. Among other objectives, this report (1) describes the military services' reported actual spending on fuel consumption compared to their budget estimates since 2012, and factors that were reported to have contributed to any differences, and (2) assesses the steps DOD takes to report accurate and complete fuel consumption data in annual budget requests. GAO analyzed DOD budget documents, including military service and DLA fuel data for fiscal years 2012 through 2015 and interviewed DOD officials responsible for preparing fuel consumption budget materials.

What GAO Recommends

GAO recommends that DOD (1) develop an approach to reconcile the military services' and DLA fuel consumption data and (2) report more complete fuel consumption data to Congress. DOD concurred with the first recommendation and did not concur with the second recommendation, stating that providing additional fuel consumption information could be useful, but doing so would be difficult and labor intensive. GAO believes the recommendation remains valid to ensure that Congress has information to assess trends in fuel consumption, as discussed in the report.

View [GAO-16-644](#). For more information, contact Cary Russell at (202) 512-5431 or russellc@gao.gov.

September 2016

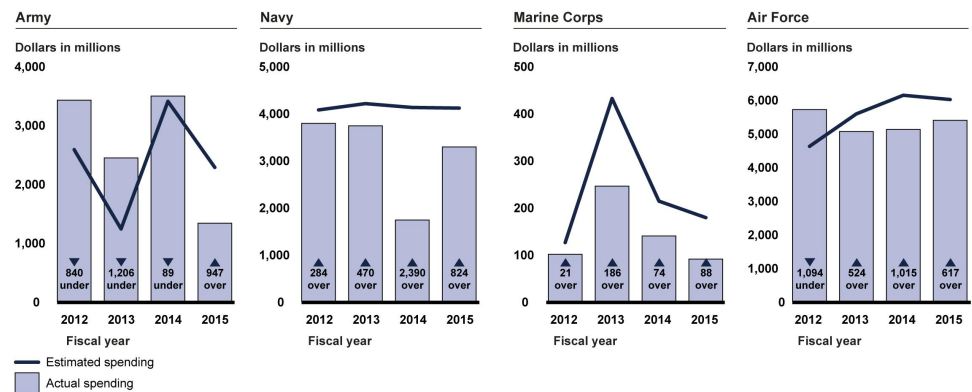
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Actions Needed to Improve DOD's Fuel Consumption Budget Data

What GAO Found

The military services' total obligations for fuel consumption spending decreased from a high of about \$13 billion in fiscal year 2012 to a low of about \$10.1 billion in fiscal year 2015 but differed from budget estimates, which officials largely attributed to changes in operations and training that affected fuel consumption. Specifically, each of the military services either over- or underestimated its actual fuel consumption spending when compared to budget estimates (see figure).

Military Services' Reported Actual Versus Estimated Fuel Consumption Spending, Fiscal Years 2012 through 2015



Source: GAO analysis of Department of Defense budget data. | GAO-16-644

The Department of Defense (DOD) takes some steps to report fuel consumption data in annual budget requests, but it does not fully reconcile differences in the military services' reported actual fuel consumption data and does not include some fuel consumption data. For each budget request, DOD validates the military services' fuel consumption data by ensuring that the budget estimates align with DOD's funding priorities, among other steps. However, GAO's analysis found differences between the military services' reported fuel consumption spending and Defense Logistics Agency (DLA) data on fuel sales to them. For example, DOD reported that the Navy's actual obligations for fuel consumption spending in fiscal year 2014 were about \$2.7 billion less than what DLA's fuel sales data show was sold. DOD had not established an approach to reconcile such differences. Having an approach to reconcile differences would provide DOD with a means to determine if any actions are needed to better assess the accuracy of the military services' reported fuel consumption data. Further, GAO's analysis found that DOD's budget requests for fuel did not include details in two areas that could be used by Congress to evaluate funding requests for fuel. First, the budget requests excluded fuel volume data that were collected during the budget development process. Fuel volume data would provide another measure of fuel consumption to justify DOD's funding requests. Second, the requests did not separate actual fuel consumption spending for day-to-day activities, such as training, from war-related spending, which has varied considerably from budget estimates. Without additional data in these two areas, Congress does not have full visibility over the amount of fuel volume the military services require for their activities or trends in fuel consumption spending for non-war-related purposes.

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Abbreviations

BBEDCA	Balanced Budget and Emergency Deficit Control Act of 1985
DLA	Defense Logistics Agency
DOD	Department of Defense
FASAB	Federal Accounting Standards Advisory Board
O&M	Operation and Maintenance
OCO	Overseas Contingency Operations
OMB	Office of Management and Budget
OUSD	Office of the Under Secretary of Defense

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September 12, 2016

The Honorable John McCain
Chairman
The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Mac Thornberry
Chairman
The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

The Department of Defense (DOD) generally, and the military services in particular, are the largest consumers of fuel in the United States Government. Specifically, in fiscal year 2015, the military services reported fuel consumption spending of about \$10.1 billion. For each fiscal year, DOD's fuel customers, such as the military services, estimate the amount of fuel they will consume, and DOD sets a standard price per barrel that it will charge its fuel customers. However, our previous work has shown that DOD has faced challenges in estimating its fuel costs. In 2014, we reported that during fiscal years 2009 through 2013, DOD's actual costs for fuel differed considerably from its budget estimates.¹ For

¹See GAO, *Bulk Fuel Pricing: DOD Needs to Reevaluate Its Approach to Better Manage the Effect of Market Fluctuations*, [GAO-14-595](#) (Washington, D.C.: July 8, 2014). We recommended that DOD reevaluate its approach for estimating the standard price so that the department would be better positioned to develop more informed estimates that minimized risks and uncertainty resulting from changing market conditions. We also recommended that DOD document its assumptions, including providing detailed rationale for how it estimates each component of the standard price. DOD agreed with our first recommendation, stating that the department continually evaluates methods to better estimate the price of fuel. DOD partially agreed with our second recommendation but noted that the department does not have a documented, specific, step-by-step process to develop the standard price. We address the status of these recommendations later in this report.

example, in 2009, DOD overestimated its bulk fuel costs by about \$3 billion and underestimated its bulk fuel costs in 2012 by about \$3.2 billion. Although fluctuations in the market price for fuel were, on average, the primary driver of the differences between DOD's actual and estimated fuel costs, our analysis showed that changes in actual fuel consumption during these same years accounted for, on average, 26 percent of the difference. In November 2015, we reported on several weaknesses in DOD's methodology for establishing the standard price for its fiscal year 2016 budget request.² We made recommendations to improve DOD's methodology for developing the standard price for fiscal year 2017 and for future fiscal years. We discuss actions DOD has taken to address these recommendations later in this report.

Senate Report No. 114-49,³ which accompanied a proposed Senate bill for the National Defense Authorization Act for Fiscal Year 2016, included a provision for us to review the military services' fuel consumption estimates in DOD's annual budget requests. This report (1) describes the military services' reported actual spending on fuel consumption compared to their budget estimates since 2012 and factors that the services reported to have contributed to any differences; (2) assesses the steps DOD takes to report accurate and complete fuel consumption data in its annual budget requests; and (3) evaluates the extent to which DOD's approach for determining the fiscal year 2017 standard price it will charge to fuel customers is consistent with federal budget guidance and leading practices for a credible and well-documented cost estimate.

To describe the military services' reported actual spending on fuel consumption compared to their budget estimates since 2012 and factors that were reported to have contributed to any differences, we analyzed DOD's operation and maintenance (O&M) budget justification materials for fiscal years 2012 through 2015. We compared data on actual obligations reported in the military services' O&M budget justification materials for fuel consumption against the military services' spending estimates for fuel consumption for these same years. We focused our

²GAO, *Bulk Fuel Pricing: DOD's Needs to Take Additional Actions to Establish a More Reliable Methodology*, [GAO-16-78R](#) (Washington, D.C.: Nov. 19, 2015).

³S. Rep. No. 114-49, accompanying S. 1376, a proposed bill for the National Defense Authorization Act for Fiscal Year 2016.

analysis on fiscal years 2012 through 2015, because this period covered the most recent complete year of actual fuel consumption and provided three years of consumption data to analyze any trends. To determine the reliability of the data, we obtained information on how the data were collected, managed, and used through interviews with and questionnaires to relevant officials and determined that the data presented in our findings were sufficiently reliable to present trends in this report on the military services' actual and estimated O&M spending for fuel consumption for fiscal years 2012 through 2015. We interviewed an official from the Office of the Under Secretary of Defense (OUSD) Comptroller who is responsible for managing the bulk fuel program and officials with the military services to better understand any factors that contributed to differences between actual and estimated fuel consumption.

To assess the steps DOD takes to report accurate and complete fuel consumption data in annual O&M budget requests, we analyzed DOD's O&M budget justification materials for fiscal years 2012 through 2015 as well as military service and Defense Logistics Agency (DLA) fuel data. We interviewed an official from the OUSD Comptroller who is responsible for managing the bulk fuel program, officials with military service budget and financial management offices, and DLA to determine how O&M budget justification materials generally, and fuel consumption estimates specifically, are prepared, evaluated, and reported to Congress. We also interviewed officials from DLA to determine how DLA reports its fuel sales to the military services. To understand the differences, if any, between the military services' fuel consumption data and DLA fuel sales, we analyzed actual obligations for fuel consumption spending reported in the military services' O&M budget materials for fiscal years 2012 through 2015 and compared the data with DLA data on fuel sales to the military services for these same years. To determine the reliability of both the O&M budget justification data and DLA fuel sales data provided to us by DOD, we obtained information on how the data were collected, managed, and used through interviews with and questionnaires to relevant officials. We assessed the information against federal internal controls⁴ and accounting

⁴See GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C. Nov. 1, 1999). These standards were in effect prior to fiscal year 2016 and cover the time period of DOD's data. The standards were subsequently updated. The updated standards went into effect on October 1, 2015.

standards⁵ that describe practices regarding how information should be recorded and communicated to management and others. We determined that the data were sufficiently reliable to present the military services' total O&M obligations for fuel consumption spending for fiscal years 2012 through 2015 and DLA fuel sales data to the military services for these same years. However, as discussed later in this report, we identified differences in the fuel consumption data reported by the military services and DLA. To understand the differences between the military services' O&M base request for fuel and actual fuel consumption for O&M base programs and activities, we calculated O&M base spending, because DOD does not report this information separately from O&M Overseas Contingency Operations (OCO) spending in its budget justification materials.⁶ To do this, we compiled and summed O&M OCO obligations for fuel consumption spending reported in the O&M OCO budget materials for each military service for fiscal years 2012 through 2015 and subtracted this amount from total O&M obligations for fuel consumption spending reported in the military services' budget exhibits, which included the total of O&M base obligations and O&M OCO obligations. We then compared this amount to fuel consumption estimates included in the military services' O&M base budget requests for each fiscal year.

To evaluate the extent to which DOD's approach for determining the fiscal year 2017 standard price charged to fuel customers is consistent with federal budget guidance and leading practices for a credible and well-documented cost estimate, we compared the methodology DOD selected to establish the fiscal year 2017 standard price with the Office of Management and Budget's (OMB) A-11 Circular,⁷ which governs federal

⁵Federal Accounting Standards Advisory Board (FASAB), *Handbook of Accounting Standards and Other Pronouncements, as amended* (Washington, D.C.: June 30, 2015). The *Handbook* contains the body of accounting concepts and standards for the U.S. government produced by the FASAB, whose mission is to serve the public interest by improving federal financial reporting through issuing federal financial accounting standards and providing guidance after considering the needs of external and internal users of federal financial information.

⁶DOD's O&M base spending refers to spending on its day-to-day activities, such as training. Since 2002, Congress has provided DOD with funding for overseas contingency operations through separate provisions in either annual or supplemental appropriation acts.

⁷OMB Circular No. A-11, *Preparation, Submission, and Execution of the Budget* (2015).

agencies' budget development and with *GAO's Cost Estimating and Assessment Guide*, which outlines a compilation of best practices, including characteristics of a credible and well-documented cost estimate, that federal cost-estimating organizations and industry use to develop and maintain reliable cost estimates.⁸ We also interviewed an official from the OUSD Comptroller who is responsible for managing the bulk fuel program and reviewed documentation on DOD's analysis of various methodologies it examined to develop the fiscal year 2017 standard price. We did not evaluate the relative costs or benefits of the methodologies that DOD considered—such as the limitations or uncertainties that may be inherent in selecting one methodology over another. Appendix I provides further details on our scope and methodology.

We conducted this performance audit from July 2015 to September 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Congress provides the military services with O&M funds for certain expenses, such as pay and benefits for most of DOD's civilians; operations at military bases; training, education, and medical care for individual service members; and fuel and spare parts for DOD equipment, among other expenses. When developing annual O&M funding requests, the military services report that estimates of their fuel consumption are based on planned activity levels, which can vary by service. For example, the Air Force, Navy, and Marine Corps estimate their fuel consumption based on planned operational and training flying hours. According to Navy and Marine Corps officials, the Navy estimates its fuel consumption based on a planned number of steaming days for ship operations (i.e., the number of days a ship is not in port), and the Marine Corps estimates its fuel consumption for its ground units based on the number of days for planned training exercises. The Army estimates its fuel consumption based on historical fuel usage rates for vehicle miles during training

⁸GAO, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs*, [GAO-09-3SP](#) (Washington, D.C.: Mar. 2, 2009).

events and operational fuel requirements as determined by Army major commands and Army operations and plans.

In general, the military services follow a similar process for estimating fuel consumption requirements, with some differences in the extent to which they use actual fuel consumption data to estimate future fuel consumption. For example, officials from both the Air Force and Navy reported using historical averages to calculate fuel consumption estimates for their flying hour program and ship operations. However, the Air Force uses five years of data while the Navy uses three years of data to estimate fuel consumption for ship operations and data from the previous year to calculate fuel consumption estimates for its air operations. Officials with two military services—the Army and the Marine Corps—stated that they used other data points to approximate actual fuel consumption in order to calculate a fuel consumption estimate. For example, according to Army officials, the Army uses three to five years of sample test data from ground vehicles and equipment, fuel efficiency rates in technical manuals, and manufacturer's data for equipment to approximate fuel efficiency for each type of equipment item. Taken together, the Army uses these data points to approximate its actual fuel consumption. According to Marine Corps officials, the Marine Corps bases its fuel consumption requirements on the previous year's sales data from DLA and adjusts its fuel consumption estimate to reflect changes in operational and training requirements for the budget request year.

The military services and other fuel customers use O&M funding to reimburse DOD for the costs of purchasing bulk fuel on the world market to support their operations. The military services calculate their total O&M funding needs for fuel in a given fiscal year by using their planned volume of fuel consumption expressed in millions of barrels of fuel and the standard price per barrel that DOD will charge its fuel customers for fuel. The OUSD Comptroller, in coordination with DLA, estimates and sets a standard price for its fuel and other fuel-related commodities for each budget request. For its fiscal years 2016 and 2017 budget estimates, DOD established the standard price based on two components: the projected cost of refined fuel and operating costs, which cover various

overhead and transportation costs.⁹ According to DOD officials, in setting the standard price, DOD endeavors to closely approximate the actual per barrel price that will be paid during budget execution, which occurs almost a year later. If the actual market price of fuel is higher than the price DOD is charging its customers, DOD will have to pay more for fuel than it is being reimbursed from its customers. If the actual price is lower than the standard price, DOD will be reimbursed with more cash than it anticipated.

DOD and military service financial management officials prepare budget justification materials for their O&M funding requests on an annual basis. Beginning in fiscal year 2010, the military services have prepared separate budget justification materials for O&M base and O&M OCO funding requests.¹⁰ O&M base funding is used to pay for enduring day-to-day programs and activities—including fuel for training activities. O&M OCO funding is used to support activities associated with overseas contingency operations. DOD’s Financial Management Regulation¹¹ governs how the military services formulate these budget requests and communicate them to Congress. Specifically, the Regulation directs statutory and regulatory financial management requirements, systems, and functions for all appropriated and non-appropriated, working capital, revolving and trust fund activities. For fuel consumption estimates, the military services prepare two principal budget exhibits:

- *Petroleum, Oil, and Lubricants Consumption and Costs budget exhibit (the “OP-26”)*: Contains information on direct consumption by type of petroleum product. The military services prepare and submit to the OUSD Comptroller three separate exhibits for each budget submission: (1) OP-26A for flying hours; (2) OP-26B for unit fuel costs; and (3) OP-26C for sources of purchases for petroleum, oil, and lubricants consumption. According to DOD’s Financial

⁹Prior to fiscal year 2016, DOD established the standard price based on a set of forecasted economic assumptions, including the projected price of crude oil and other factors, such as refining costs, in addition to operating costs.

¹⁰Prior to fiscal year 2010, DOD provided separate budget justification materials for Global War on Terrorism requests, which were generally identified as supplemental or “bridge” requests.

¹¹DOD 7000.14-R Financial Management Regulation, volume 2A, chapter 3 covers the budget formulation and congressional justification requirements for O&M appropriations.

Management Regulation, the OP-26 is not provided to Congress with the budget justification materials accompanying the President's annual budget request.

- *Summary of Price and Program Changes budget exhibit (the "OP-32")*: Contains information by specific line items detailing, among other items, Defense-wide Working Capital Fund supplies and materials purchases related to fuel consumption, such as fuel purchases from the DLA's Defense Fuel Supply Center and locally-purchased fuel. According to DOD's Financial Management Regulation, the OP-32 is provided to Congress with the budget justification materials accompanying the President's annual budget request.

DLA, as the department-wide executive agent for bulk petroleum, is tasked with executing supply chain management for all bulk fuel owned by DOD.¹² DLA utilizes the Defense-wide Working Capital Fund to purchase bulk fuel for customers. DOD prepares Defense-wide Working Capital Fund operating and capital budget materials. These budget materials describe DLA's budget requests, provide justifications for any changes in the budget request from previous years, and report changes in the standard price of fuel across fiscal years. Generally, DOD's O&M budget justification materials for fuel consumption present data for three years, including actual total obligations for fuel consumption spending for the previous fiscal year, estimated obligations for fuel consumption spending for the current fiscal year, and estimated obligations for fuel consumption spending for the budget request fiscal year.

The Defense-wide Working Capital Fund covers DLA's costs for purchasing bulk fuel and is reimbursed through its sale of fuel to the military services and other customers at a standard price. The standard price is intended to remain unchanged until the next budget year. This helps to shield the military services from market price volatility by allowing

¹²DOD Directive 5101.8, *DOD Executive Agent (DOD EA) for Bulk Petroleum* (Aug. 11, 2004).

the cash balance in the fund to absorb minor fuel price fluctuations.¹³ For example, from fiscal years 2010 through 2015, the military services purchased an average of approximately 102 million barrels per year from DOD. Therefore, a standard price increase of even \$1 per barrel would result in a \$102 million difference from the military services' budget requests. According to DOD's Financial Management Regulation, working capital funds were established to satisfy recurring DOD requirements using a businesslike buyer-and-seller approach, and the goal for the Defense-wide Working Capital Fund is to remain revenue neutral, allowing the fund to break even over time—that is, to neither make a gain nor incur a loss.

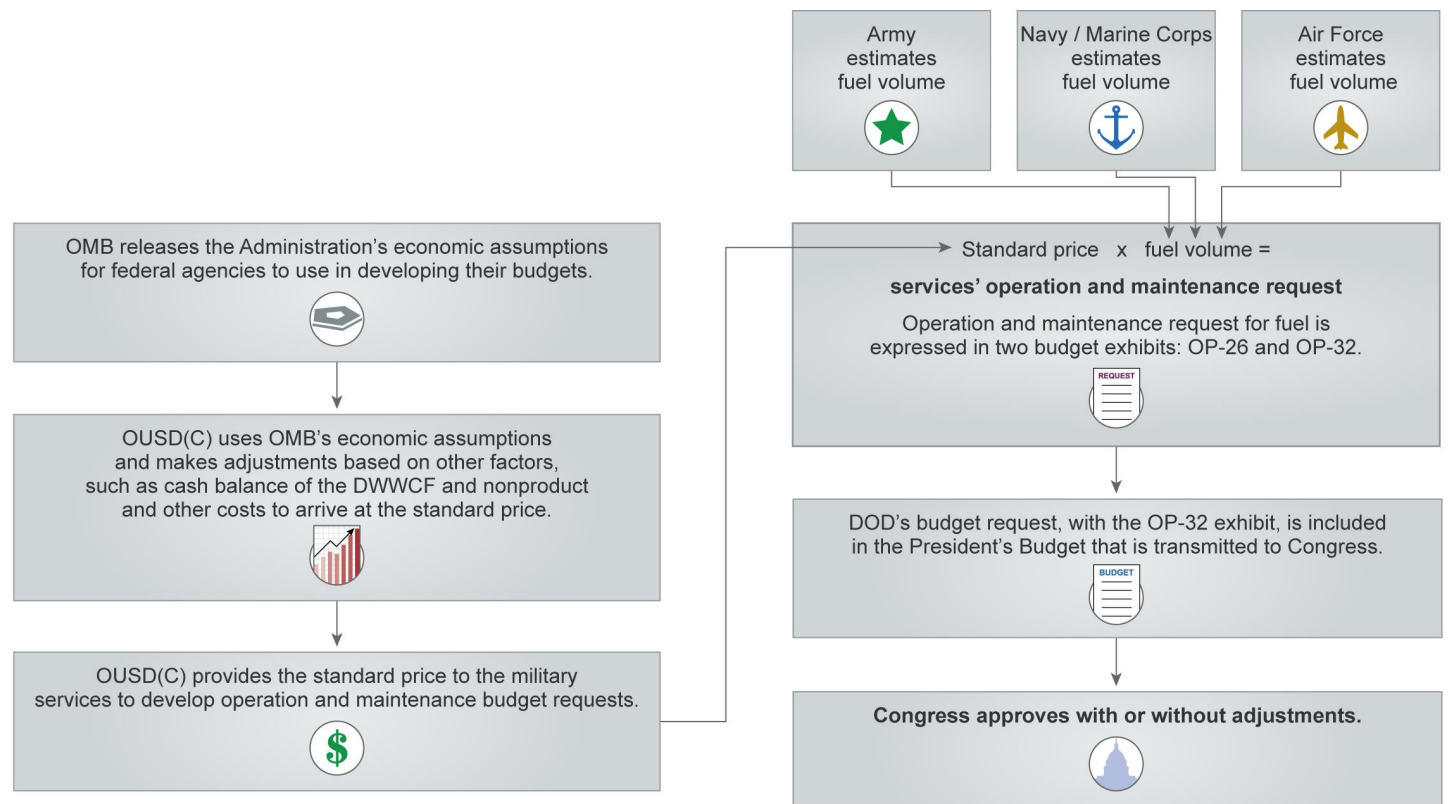
During the year the budget is executed, the actual price for a barrel of fuel on the world market may be higher or lower than DOD's standard price. If the actual price is higher, the cash balance in the Defense-wide Working Capital Fund will go down. If the actual price is lower, the cash balance in the fund will go up. To correct for these fluctuations, DOD may adjust the standard price for the following year. For example, DOD may increase the standard price to make up for losses in the previous year and bolster the cash balance in the fund. Alternatively, DOD may decrease the standard price to reimburse the military services, which had paid a higher price the previous year. DOD can also cover fund losses during the execution year by obtaining an appropriation from Congress, transferring funds from another DOD account into the fund, or adjusting the standard price out of cycle.¹⁴

Figure 1 illustrates the process and the main organizations involved in budgeting for fuel.

¹³According to DOD's Financial Management Regulation, it is DOD's policy that components and activities should budget to achieve an operating cash level in their working capital funds sufficient to maintain a positive cash balance throughout the budget year. Additionally, each component must establish an operating cash target measured in days of operating cash. The DOD Financial Management Regulation provides a formula for calculating target balances.

¹⁴DOD guidance requires that the department seek prior approval from the congressional defense committees for certain transfers between appropriations accounts and to reprogram funds within an appropriation if the amount to be transferred is above certain thresholds.

Figure 1: Budget Process for DOD Bulk Fuel Program



DWWCF: Defense-wide Working Capital Fund
 OMB: Office of Management and Budget
 OP-26: Petroleum, Oil, and Lubricants Consumption and Costs budget exhibit
 OP-32: Summary of Price and Program Changes budget exhibit
 OUSD(C): Office of the Under Secretary of Defense (Comptroller)

Source: GAO analysis of Department of Defense (DOD) information. | GAO-16-644

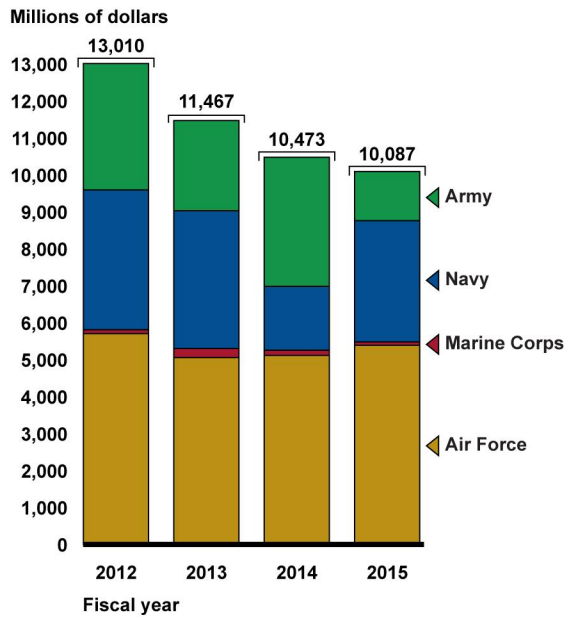
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During fiscal years 2012 through 2015, the military services reported a decrease in total obligations for fuel consumption spending but reported actual obligations differed from budget estimates during these years, which officials attributed to changes in operations and training that affected the level of fuel consumption. Specifically, each of the military services either over- or underestimated actual obligations for fuel consumption spending when compared to their budget estimates. DOD officials identified changes in operations and training levels during these years as the primary reasons for the differences between actual and estimated spending on fuel consumption, although other factors, such as changes in the standard price DOD charges its fuel customers, have contributed to differences in prior years.

**Military Services’ Reported
Actual Spending on Fuel
Consumption Decreased
from Fiscal Years 2012
through 2015 but Differed
from Budget Estimates**

In fiscal years 2012 through 2015, the military services’ reported a decrease in total obligations for fuel consumption spending from a high of about \$13 billion in fiscal year 2012 to a low of about \$10.1 billion in fiscal year 2015. The Army reported the greatest overall decrease in total obligations for fuel consumption spending during these years, from a high of about \$3.4 billion in fiscal year 2012 to a low of about \$1.3 billion in fiscal year 2015. Decreases reported in total obligations for fuel consumption spending for these fiscal years varied by military service, as shown in figure 2.

Figure 2: Total Obligations for Fuel Consumption Spending Reported by the Military Services, Fiscal Years 2012 through 2015 (dollars in millions)

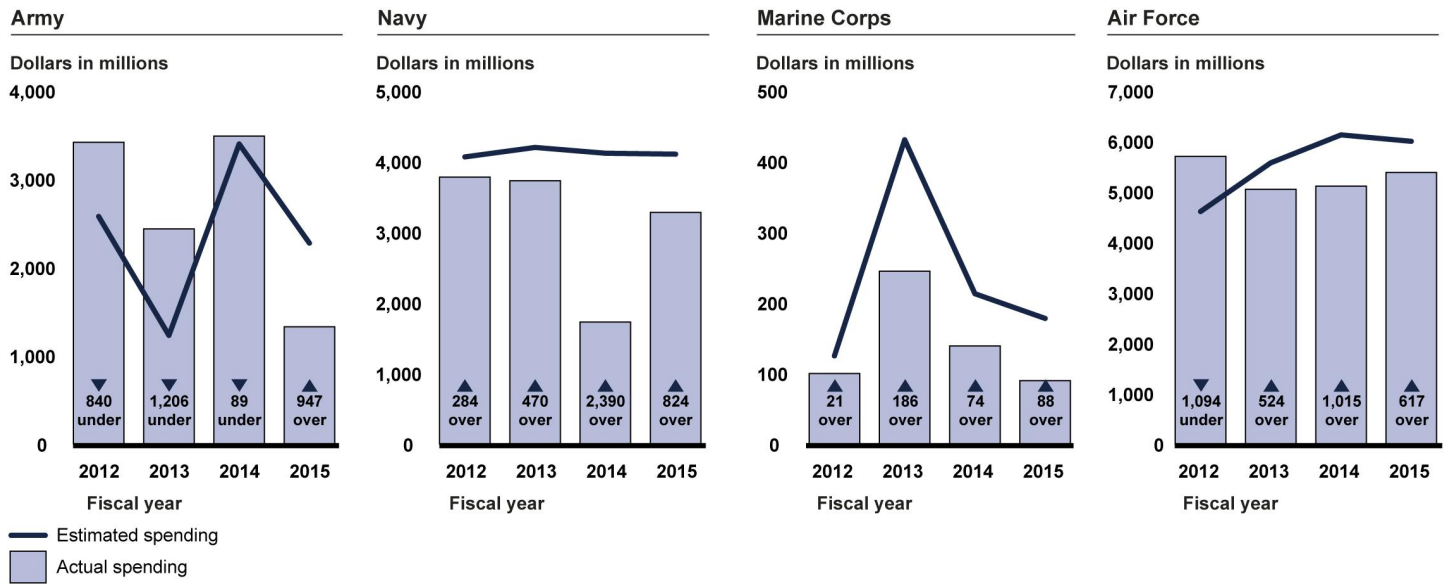


Source: GAO analysis of Department of Defense budget data. | GAO-16-644

Note: Marine Corps' aviation fuel consumption is included in the Navy's total above.

Our analysis of DOD's budget justification materials comparing the military services' reported actual obligations for fuel consumption spending against their budget estimates found that each of the military services over- or underestimated fuel consumption spending in each fiscal year from 2012 through 2015. For example, the Army underestimated its fuel consumption spending by about \$840 million in fiscal year 2012, while the Navy overestimated its spending by about \$2.4 billion in fiscal year 2014. The differences in actual obligations and estimated spending reported for each military service are shown in figure 3.

Figure 3: Military Services' Reported Actual Obligations Versus Estimated Fuel Consumption Spending, Fiscal Years 2012 through 2015



Source: GAO analysis of Department of Defense budget data. | GAO-16-644

Military Services Identified Various Factors that Contributed to Differences between Actual and Estimated Spending on Fuel Consumption

According to military service officials, differences between actual obligations and estimated spending on fuel consumption are mainly attributable to changes in planned operations and training. For example:

Army budget officials told us that fiscal year 2015 marked a change in its mission in Afghanistan, from the end of Operation Enduring Freedom to the beginning of Operation Freedom's Sentinel.¹⁵ According to these officials, changes in operational missions were the main driver of the difference between its actual and estimated fuel consumption spending for that fiscal year.

¹⁵Operation Enduring Freedom was an overseas contingency operation in Afghanistan that began in October 2001 and was replaced by Operation Freedom's Sentinel in December 2014. Operation Freedom's Sentinel supports the North Atlantic Treaty Organization's Resolute Support mission and the U.S. counterterrorism mission against al Qaeda, its remnants, and its affiliates in Afghanistan.

Air Force financial management officials identified changes in fighter and tanker support during overseas missions as factors that contributed to differences between its actual and estimated fuel consumption spending.

One Navy budget official told us that delays in the delivery of ships and equipment can lead to differences between actual and estimated fuel consumption spending. For example, Navy budget officials cited the delay in deployment of the Littoral Combat Ship in fiscal year 2015, noting that they included fuel consumption spending estimates for these ships in annual budget requests for that year, but the ships were not yet ready to deploy, and thus the fuel consumption spending estimates were overstated.

Marine Corps budget officials told us that it is difficult to identify an accurate budget estimate for fuel consumption spending up to 18 months in advance of the year of budget execution, because factors like a change in operational tempo or a sudden need to deploy or redeploy forces can have a significant effect on actual fuel consumption spending.

Officials told us that other factors can result in differences between actual and estimated spending on fuel consumption, such as inclement weather or maintenance issues. For example, Air Force and Navy officials stated that inclement weather can affect fuel efficiency for air and ship operations or result in delays or the cancellation of training activities. Army officials stated, for instance, that entire training schedules have been canceled as a result of inclement weather. Unforeseen maintenance issues during the year of budget execution can also have an effect on fuel consumption spending. For example, Army officials stated that funding budgeted for fuel can be used for spare parts and other costs related to operation and maintenance instead of fuel, which has contributed to differences between actual and estimated spending on fuel consumption.

Budgetary actions that affect O&M funding levels for fuel have also affected actual consumption spending, according to service officials. In fiscal year 2013, for example, officials reported that actual fuel consumption spending was lower than estimated spending as a result of

actions DOD took to address sequestration.¹⁶ In our prior work, we highlighted several actions identified by DOD officials that DOD and the military services took to address these budgetary reductions.¹⁷ For instance, all four of the military services cancelled or reduced participation in training exercises in fiscal year 2013. Additionally, the Air Force stood down 17 of 62 operational squadrons for 3 months during fiscal year 2013 and reduced flying hours for 10 other squadrons for a period of 1 to 3 months.

Military service officials also described changes in the standard price that DOD charges its fuel customers that can result in differences between actual and estimated fuel consumption spending. The military services use the standard price as a key component when developing their O&M budget requests. If DOD changes the standard price actually charged to fuel customers during the year of budget execution, the military services' O&M budgets can be affected as a result. For instance, in 2014, we reported that from fiscal years 2009 through 2013, the differences between the price DOD paid for fuel and the standard price it charged its fuel customers accounted for, on average, 74 percent of the difference between DOD's actual and estimated fuel costs.¹⁸ DOD officials told us that they try to avoid changes to the standard price when possible to avoid the negative effect on the military services' O&M budgets. We found that for fiscal years 2012 through 2015, DOD generally kept the standard price it charged fuel customers the same throughout the year or

¹⁶In August 2011, Congress and the President enacted the Budget Control Act (BCA), amending the Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA). Among other things, the BCA imposed discretionary spending limits for fiscal years 2012 to 2021 to reduce projected spending by about \$1 trillion. The BCA also established the Joint Select Committee on Deficit Reduction (Joint Committee), which was tasked with proposing legislation to reduce the deficit by an additional \$1.2 trillion or more through fiscal year 2021. The Joint Committee was directed to report its proposal by December 2, 2011, and Congress and the President were to enact legislation by January 15, 2012. The Joint Committee did not report a proposal, and Congress and the President did not enact legislation. This failure triggered the sequestration process in section 251A of BBEDCA, known as the "Joint Committee sequestration." As required, the President ordered a sequestration of discretionary and direct spending on March 1, 2013—5 months into fiscal year 2013.

¹⁷GAO, *Sequestration: Documenting and Assessing Lessons Learned Would Assist DOD in Planning for Future Budget Uncertainty*, [GAO-15-470](#) (Washington, D.C.: May 27, 2015).

¹⁸[GAO-14-595](#).

decreased it. For example, DOD decreased the standard price three times in fiscal year 2012 (from \$165.90 to \$97.02 per barrel) and left it unchanged for fiscal years 2013 and 2014. In fiscal year 2015, DOD decreased the standard price from \$155.40 to \$136.92 per barrel. As a result, changes in the standard prices charged to fuel customers had a limited effect on the differences between actual and estimated fuel consumption spending for these years.

DOD Does Not Fully Reconcile Differences in Reported Fuel Consumption Spending and Does Not Include Certain Fuel Consumption Data in Annual Budget Requests

DOD takes some steps to report fuel consumption data in annual budget estimates, but it does not fully reconcile differences between the military services' reported actual fuel consumption spending and DLA's reported fuel sales and does not include certain data that the Congress could use to evaluate the military services' funding requests for fuel. For each budget request, DOD validates the military services' fuel consumption data by reviewing the military services' fuel consumption estimates to ensure that the estimates align with DOD's overall funding priorities, among other steps. However, DOD does not reconcile differences between the military services' actual obligations for fuel consumption spending reported in O&M budget requests and DLA's reported fuel sales to the military services that could potentially improve the accuracy of the military services' annual budget estimates. Further, DOD's annual O&M budget requests for fuel contain some actual and estimated fuel consumption spending data, but the requests did not include fuel volume data or separate the military services' actual O&M base obligations for day-to-day activities, such as training, from its actual O&M OCO obligations for fuel consumption spending.

DOD and the Military Services Perform Steps to Validate and Report Fuel Consumption Data When Developing Annual Budget Requests

Each military service develops an annual O&M funding estimate for fuel consumption based on planned activity levels, such as flying hours, steaming days, tank miles, and base operations, among other factors, and the standard price provided by the OUSD Comptroller. Consistent with requirements established in DOD's Financial Management Regulation, the military services each prepare an OP-26 ("Petroleum, Oil, and Lubricants Consumption and Costs") and OP-32 ("Summary of Price and Program Changes") budget exhibit to justify their O&M funding requests for fuel consumption. More specifically, the military services prepare the OP-26 budget exhibit for planned fuel consumption that describes estimates for a total of both O&M base and O&M OCO fuel volume requirements (i.e., millions of barrels of fuel) and dollars, which are used by the military services and the OUSD Comptroller to gauge the

effect of any fuel price changes on DOD's O&M funding requests during the budgeting process.¹⁹ For example, during the budget development process, the services prepare the OP-26 budget exhibit showing fuel volume requirements and the standard price to develop their O&M funding estimates. An OUSD Comptroller official explained that the department would use the OP-26 data to assess any effect on the military services' O&M estimates and funding needs if it were to adjust the standard price for the President's budget request submission, but it does not submit the OP-26 to Congress with its annual O&M budget justification materials. Separately, the military services prepare individual OP-32 budget exhibits for their O&M base and O&M OCO funding requests. The OP-32 exhibits summarize the total price and program changes in dollars from the previous fiscal year to the current fiscal year and from the current fiscal year to the budget request year. Unlike the OP-26, DOD submits the OP-32 to Congress with the budget justification materials accompanying the President's annual budget request.

According to an OUSD Comptroller official who oversees the bulk fuel program, the OUSD Comptroller evaluates the military services' fuel consumption estimates contained in these budget exhibits to ensure that they align with overall DOD funding priorities to support the President's budget request and that the data are consistent among all exhibits. The official stated these budget exhibits are also reviewed to ensure that the military services' fuel consumption estimates are in line with historical fuel consumption. The official stated that the OUSD Comptroller reviews DLA data on fuel sales to the military services as one point of comparison when evaluating the military services' fuel consumption budget estimates, but the official noted that differences between DLA and the military services' fuel sales data can exist. Specifically, DLA reports its actual and estimated fuel sales in the Defense-wide Working Capital Fund budget exhibit provided annually to Congress. DLA also publishes a fact book each fiscal year, which contains information regarding DLA's business operations that includes data on fuel sales to the military services, among other information. Following the requirements established in DOD's

¹⁹According to an OUSD official, the OP-26 is initially submitted to support the military services' two-year budget submission (also known as the Budget Estimate Submission) and is later updated to align with fuel pricing changes and funding priorities reflected in the President's Budget request.

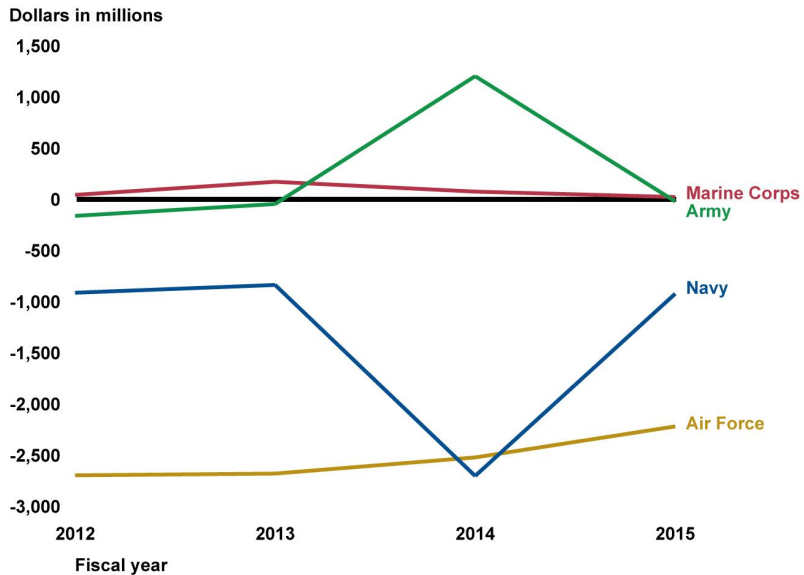
Financial Management Regulation, the OP-32 budget exhibits are then incorporated into the overall O&M budget request for each service.²⁰

DOD Does Not Reconcile Differences between the Military Services' Fuel Consumption Budget Data and DLA Fuel Sales

Based on our review of military service and DLA data for fiscal years 2012 through 2015, we found significant differences between the military services' reported actual obligations for fuel consumption spending reported in annual O&M budget requests and DLA fuel sales data. For example, in the President's budget request for fiscal year 2016 that was submitted to Congress in February 2015, DOD reported that the Navy's actual obligations for fuel consumption spending in fiscal year 2014 were about \$2.7 billion less than what DLA's fuel sales data show was sold to the Navy in that year. In addition, in this same budget request, DOD reported that the Army's actual obligations for fuel consumption spending in fiscal year 2014 were about \$1.2 billion more than what DLA's fuel sales data show was sold to the Army for the same fiscal year. Figure 4 shows differences between military services' actual obligations for fuel consumption spending that were reported in the President's annual budget requests and fuel sales to the military services reported by DLA for fiscal years 2012 through 2015.

²⁰DOD 7000.14-R, *Financial Management Regulation*, volume 2A, chapter 3 covers the budget formulation and congressional justification requirements for O&M appropriations.

Figure 4: Differences between the Military Services' Actual Obligations for Fuel Consumption Spending Reported in the President's Annual Budget Requests and Fuel Sales Reported by DLA, Fiscal Years 2012 through 2015



Source: GAO analysis of Department of Defense budget and Defense Logistics Agency fuel sales data. | GAO-16-644

DLA and military service officials provided some explanations for why differences may exist between the military services' actual obligations for fuel consumption spending reported in annual budget requests and DLA fuel sales data, but neither DLA nor the military services could fully account for these differences, even though they compared the two data sets during the budget review process during the budget review process. For example, according to DOD officials, DLA fuel sales for an individual service may include sales to DOD's combatant commands, such as U.S. Transportation Command.²¹ Officials explained that the large differences

²¹To support its worldwide military missions and meet evolving national security challenges, DOD operates three functional combatant commands: U.S. Special Operations Command, U.S. Strategic Command, and U.S. Transportation Command. DOD also has six geographic combatant commands that are responsible for missions in specific areas of the world: U.S. Africa Command, U.S. Central Command, U.S. European Command, U.S. Northern Command, U.S. Pacific Command, and U.S. Southern Command.

between the Air Force's reported obligations for fuel consumption spending and DLA's fuel sales to the Air Force could be attributable to the inclusion of fuel sales to U.S. Transportation Command in DLA's data sets if Air Force aircraft flew missions for the command. However, the obligations for fuel consumption spending would not necessarily be accounted for in the Air Force's data.

Additionally, according to an official from the OUSD Comptroller, the Air Force might purchase fuel from DLA in order to support an Army mission. The Army would then be responsible for reimbursing the Air Force for this fuel consumption.

Another reason for these discrepancies, officials explained, is the result of the military services' accounting practices for fuel consumption spending. For example, when an Air Force aircraft is used to support a U.S. Transportation Command or other DOD component mission, the fuel purchased from DLA for that aircraft is initially charged to an Air Force account. Officials stated that through a monthly review of accounting records, the Air Force's fuel charges for that particular aircraft would eventually be charged to the appropriate DOD component organization. Yet, DLA would not be informed of the final consumer of the fuel, and would thus record the sale of the fuel to the Air Force. DOD and military service officials stated these reasons would not account for all discrepancies between DLA's data and military services' actual obligations for fuel consumption spending. However, despite these significant differences in military service and DLA data, DOD officials were unable to provide an analysis or other documentation that explained the differences between the military services' actual obligations for fuel consumption spending reported in annual budget requests and DLA fuel sales data.

DOD has not established an approach to reconcile data on fuel consumption reported by the military services and DLA fuel sales to the military services, although DLA's Strategic Plan for 2015-2022 emphasizes DLA's commitment to collaborating with the military services to increase transparency. The plan highlights the need to have an ongoing, open dialogue with the military services about DLA's costs. On an annual basis, DLA coordinates with the military services to define estimated fuel requirements, which DLA uses to purchase fuel worldwide

for eventual sale to the military services.²² DOD officials told us that during the annual budget development process, the OUSD Comptroller uses DLA's fuel sales data to validate the military services O&M fuel consumption estimates; however, neither OUSD Comptroller, DLA, nor the military services act to reconcile any differences between data on DLA's fuel sales and the military services' actual obligations for fuel consumption spending. These officials noted that the directive establishing DLA as the department's executive agent for bulk fuel does not require DLA to record or report fuel sales data to the military services or other fuel customers or reconcile any differences with the military services' data, and there is no department-wide policy that requires consistency between DLA fuel sales data and military service actual obligations for fuel consumption spending. *Standards for Internal Control in the Federal Government* states that appropriate control activities include the establishment of activities to monitor performance measures and indicators, which may include comparisons and assessments relating different sets of data to one another so that analyses of the relationships can be made and appropriate actions taken.

The OUSD Comptroller official who is responsible for the bulk fuel program told us that, based on issues we raised during the course of our work, the department is taking some initial steps to understand the differences between the military services' and DLA's fuel consumption data. Specifically, the department held a series of initial working group meetings in April and May 2016 to discuss the military services' fuel consumption O&M budget exhibits and DLA's process for reporting its fuel sales, including how DLA fuel sales are recorded and reported and how DLA's data relate to the information the military services report in their O&M budget justification materials. For example, in May 2016, the OUSD Comptroller, DLA, and the military services discussed possible adjustments to DOD's accounting practices for fuel consumption spending to more accurately record DLA fuel sales to fuel customers. However, while DOD held an initial set of working groups at the time of our review, it did not have specific plans or milestones to address the

²²The military services purchase most, but not all of their fuel from DLA in a given fiscal year. For example, we found that between fiscal years 2012 through 2015, on average, about 90 percent of the military services reported spending on fuel consumption was comprised of purchases from DLA. The remaining fuel consumption spending was from other sources, including fuel purchased at local commercial locations.

limitations and inconsistencies between the military services' and DLA's data, although an OUSD Comptroller official agreed that a more formal process to reconcile differences would help validate the military services' annual O&M budget estimates for planned fuel consumption spending. Given the significant differences between the military services' and DLA's fuel data, having an approach to reconcile differences would provide DOD with a means to understand any discrepancies in its fuel consumption data and better assess the accuracy of the military services' actual fuel consumption spending that is reported in annual budget requests.

DOD's Annual Budget Requests Provided to Congress Do Not Include Certain Fuel Consumption Data

DOD's annual O&M budget requests and the accompanying budget justification materials provide Congress with certain information on the military services' actual and estimated fuel consumption spending that can help it make appropriations decisions, conduct oversight, and provide control over funds. However, the Senate Armed Services Committee has expressed its concern with DOD's fuel consumption estimates, noting that as DOD transitions from large-scale contingency operations in Afghanistan, the military services' fuel consumption estimates should be more consistent as full-spectrum training resumes.²³ The committee also stated that given recent fuel price fluctuations due to changes in the global oil market, accurate fuel consumption estimates become even more important in trying to adequately determine budget requests, particularly in times of fiscal constraints. *Standards for Internal Control in the Federal Government*²⁴ emphasizes using quality and complete information to make decisions and communicate such information externally. Moreover, the *Handbook of Federal Accounting Standards*²⁵ states that agencies should provide reliable and timely information on the full costs of their federal programs in order to assist congressional and

²³S. Rep. No. 114-49, accompanying S. 1376, a proposed bill for the National Defense Authorization Act for Fiscal Year 2016.

²⁴See GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C. Nov. 1, 1999). These standards were in effect prior to fiscal year 2016 and cover the time period of DOD's data. The standards were subsequently updated. The updated standards went into effect on October 1, 2015.

²⁵Federal Accounting Standards Advisory Board, *Handbook of Accounting Standards and Other Pronouncements, as amended* (Washington, D.C.: June 30, 2015).

executive decision makers in allocating federal resources and making decisions to improve economy and efficiency.

DOD Provides Some Fuel Consumption Spending Data in Its Annual Budget Requests

Our analysis of DOD's annual O&M budget requests to Congress found that they contain some actual and estimated fuel consumption spending data. For example, the OP-32 budget exhibits included in DOD's annual O&M budget materials provide the military services' fuel consumption spending estimates for both their O&M base and O&M OCO funding needs for the current fiscal year and budget request year. In addition, the military services' budget exhibits report data on actual obligations for fuel consumption spending for the total of both O&M base and O&M OCO spending combined for the prior fiscal year. The military services also report actual obligations for O&M OCO-only fuel consumption spending for the prior fiscal year in the OP-32 budget exhibit accompanying the O&M OCO budget request for each service. Separately, DLA reports information on its energy management activities in the Defense-wide Working Capital Fund budget justification materials provided to Congress on an annual basis. These budget materials include DLA's estimated fuel sales to the military services (for both O&M base and O&M OCO) for the current fiscal year and budget request year and actual fuel sales to the military services (for O&M OCO only) for the prior fiscal year. Also included are details on DLA's overhead costs and the standard price the military services will be charged for fuel.

Fuel Volume Data and O&M Base Obligations Are Not Included in Budget Requests

We also found, however, that DOD's annual budget requests do not provide information in two areas that could be used by Congress to evaluate the military services' funding requests for fuel. Specifically, DOD's budget requests did not (1) provide fuel volume data and (2) separate the military services' actual O&M base obligations for fuel consumption spending for day-to-day activities from its actual O&M OCO obligations for war-related fuel consumption spending. The military services do provide the OUSD Comptroller with actual and estimated fuel volume data in the OP-26 budget exhibits during the budget development process. These budget exhibits describe the volume of fuel (i.e., millions of barrels of fuel) that the military services estimate they will use for a total of their base and OCO needs when developing annual budget estimates. However, although DOD collects and evaluates fuel volume data from the military services, it does not include the OP-26 budget exhibits in the O&M budget justification materials it provides annually to Congress. According to an OUSD Comptroller official who oversees the bulk fuel program, DOD's historical practice has been to use the fuel volume requirements data included on the OP-26 during the budget development process. Although the DOD Financial Management

Regulation states that the OP-26 will not be included with the military services' budget justification materials submitted to Congress, it does not specifically preclude DOD from providing fuel volume information. The official could not explain the reasoning behind the Financial Management Regulation direction to exclude the OP-26 from DOD's budget request. Because the military services' O&M funding estimates for fuel can be affected by market price fluctuations from one year to the next, fuel volume data would provide another measure of estimated or actual fuel consumption to justify DOD's funding requests for fuel.

Additionally, the military services' O&M budget materials submitted to Congress do not report actual O&M base obligations for fuel consumption spending separately from actual O&M OCO obligations for the prior fiscal year.²⁶ For example, as noted above, the OP-32 budget exhibits accompanying the military services' O&M budget requests provide data on (1) actual obligations for the total of O&M base and O&M OCO fuel consumption spending combined and (2) O&M OCO-only spending. According to the OUSD Comptroller official who oversees the bulk fuel program, DOD and the military services collect and track O&M base obligations and O&M OCO obligations for fuel consumption spending separately, but DOD's Financial Management Regulation does not require O&M base obligations to be reported separately from O&M OCO obligations in its budget justification materials and does not specifically preclude DOD from doing so. This official also stated that Congress has not asked the department to report O&M base obligations for fuel consumption spending separately from its O&M OCO obligations.

Table 1 shows the extent to which DOD's various O&M budget documents contain fuel consumption information and are reported to Congress.

²⁶We have previously reported on DOD's use of OCO funds and have made prior recommendations on this issue, including that DOD develop guidance for transitioning base budget programs and activities funded through OCO appropriations to the base budget that it has partially agreed with but has not yet implemented. See, for example, GAO, *Defense Headquarters: Guidance Needed to Transition U.S. Central Command's Cost to the Base Budget*, [GAO-14-440](#) (Washington, D.C.: June 9, 2014). We recently reported on trends in DOD's O&M funding and its use of OCO funds. See GAO, *Defense Budget: DOD Needs to Improve Reporting of Operation and Maintenance Base Obligations*, [GAO-16-537](#) (Washington, D.C.: Aug. 16, 2016).

Table 1: Extent to Which Department of Defense Operation and Maintenance (O&M) Budget Documents Contain Fuel Consumption Data and Are Reported to Congress

Budget document	Estimated Fuel Consumption			Actual Fuel Consumption			Reported to Congress
	Fuel volume, in barrels	O&M base, in dollars	O&M OCO, in dollars	Fuel volume, in barrels	O&M base, in dollars	O&M OCO, in dollars	Not specified
OP-26, fuel consumption and costs	Contained in Budget Documents	Not Contained in Budget Documents ^a	Not Contained in Budget Documents ^a	Contained in Budget Documents	Not Contained in Budget Documents	Not Contained in Budget Documents	No
OP-32, effect of price changes	Not Contained in Budget Documents	Contained in Budget Documents	Contained in Budget Documents	Not Contained in Budget Documents	Not Contained in Budget Documents ^b	Contained in Budget Documents ^b	Yes
Defense-Wide Working Capital Fund, Operating and Capital Budgets ^c	Not Contained in Budget Documents	Contained in Budget Documents	Contained in Budget Documents	Not Contained in Budget Documents	Not Contained in Budget Documents ^b	Contained in Budget Documents ^b	Yes

Source: GAO analysis of Department of Defense data | GAO-16-644

^aThe OP-26 budget exhibits include an estimated total of both O&M base and O&M OCO spending combined.

^bThe Department of Defense reports actual obligations for the prior fiscal year for fuel consumption spending in two ways: total O&M obligations (O&M base obligations plus O&M OCO obligations) and OCO obligations only. It does not report actual obligations for O&M base fuel consumption spending separate from O&M OCO fuel consumption spending.

^cThis exhibit includes additional information conveyed to Congress, including DLA's overhead costs and the standard price the military services will be charged for fuel.

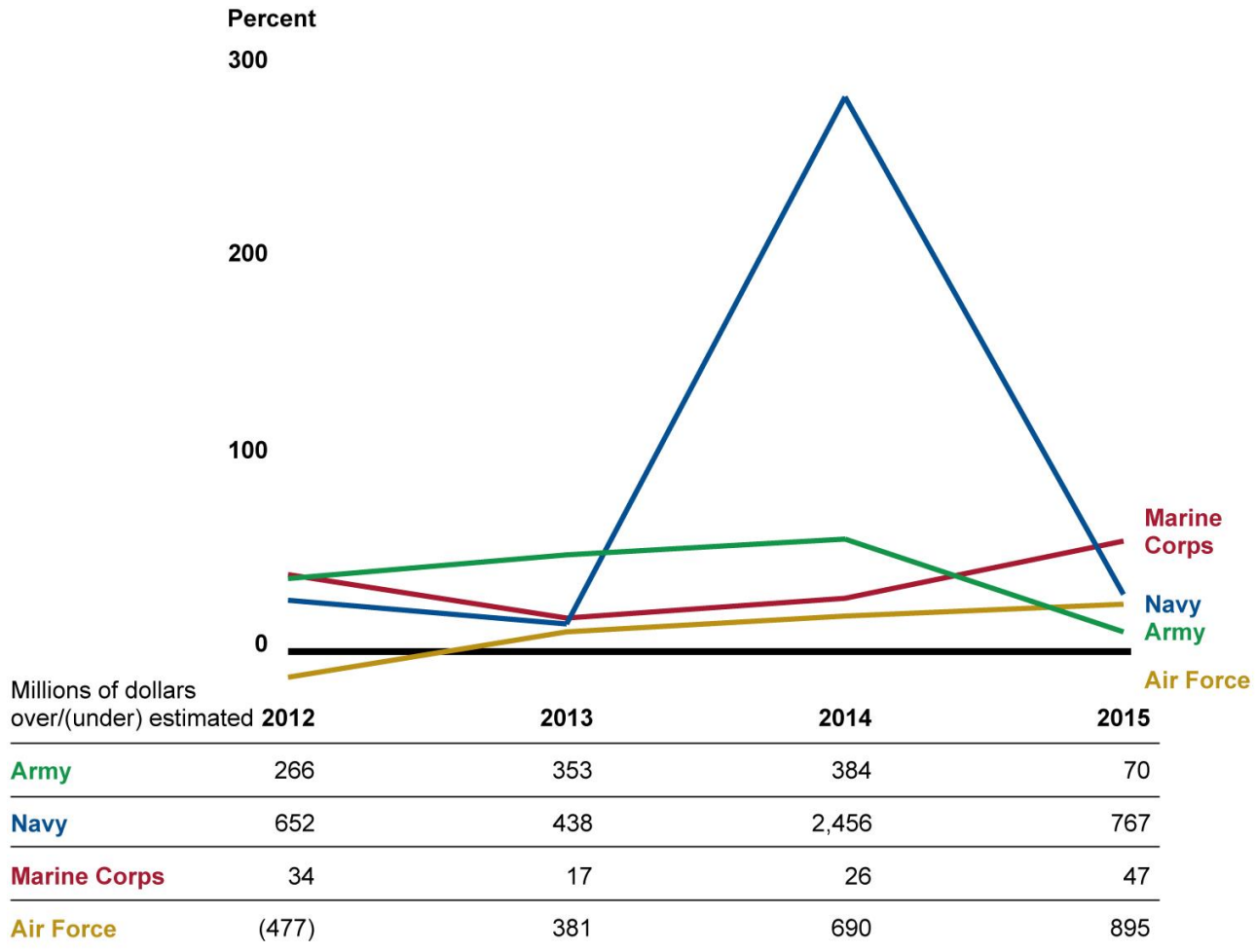
Military Services Overestimated O&M Base Spending on Fuel Consumption

Additional data on the military services' actual fuel consumption could assist Congress in determining funding levels that are needed for their activities, including full-spectrum training. In the absence of such data, congressional decision makers may not have the data they need to assess any trends in actual O&M base obligation for non-war-related purposes when evaluating the military services' budget requests for fuel. For example, although DOD does not report actual O&M base obligations for fuel consumption spending separately from actual O&M OCO obligations for prior fiscal years, we conducted an analysis to separate the military services' actual O&M base and actual O&M OCO obligations for fuel consumption spending. In conducting this analysis, we calculated O&M base obligations, because DOD does not report this information in its budget justification materials, as noted above. To do this, we first compiled and summed data on actual O&M OCO obligations for fuel

consumption spending reported in the OP-32 budget exhibits accompanying the military services' O&M OCO requests for fiscal years 2012 through 2015. We then subtracted this amount from the total O&M obligations for fuel consumption spending for these same years that are reported in the OP-32 budget exhibits accompanying the military services' O&M base budget requests which, as we also noted above, included actual obligations for fuel consumption spending in the prior fiscal year for the total of both O&M base and O&M OCO obligations combined. We then compared this amount to the estimates for fuel consumption spending included in the military services' O&M base budget request for each fiscal year.

Our analysis found that the military services generally overestimated the amount of actual O&M base fuel consumption spending for fiscal years 2012 through 2015, with one exception, as figure 5 shows. For example, the Army, Navy, and Marine Corps each overestimated O&M base fuel consumption spending each year during this time period. The amount and percent difference of the overestimate for these services, comparing our estimate of actual O&M base obligations for fuel consumption spending with the original estimates, varied each year from a high of about \$2.5 billion for the Navy in fiscal year 2014, or about a 280 percent difference from its original estimate, to a low of about \$17 million for the Marine Corps in fiscal year 2013, or about a 17 percent difference from its original estimate. Our analysis also showed that the Air Force overestimated its O&M base fuel consumption in three out of the four years during this time frame. For example, the Air Force underestimated O&M base fuel consumption spending by about \$477 million in fiscal year 2012, or about a 13 percent difference from its original estimate. In fiscal year 2015, however, the Air Force overestimated its O&M base fuel consumption spending by about \$895 million, or about a 24 percent difference from its original estimate.

Figure 5: Amount and Percent Difference between the Military Services' O&M Base Obligations for Fuel Consumption Spending (as calculated by GAO) and the Military Services' O&M Base Budget Estimates, Fiscal Years 2012 through 2015 (dollars in millions)



Source: GAO analysis of Department of Defense data. | GAO-16-644

Navy officials noted that congressional budget actions can affect the amount of O&M base fuel consumption spending in a particular fiscal year. Navy officials stated that, in fiscal year 2014, Congress realigned funds from base funding to OCO funding, which resulted in a difference of \$800 million from the Navy's original O&M base budget request for fuel. This realignment then affected the base activities the Navy was able to execute for that fiscal year. A Navy official noted that this realignment was

one explanation for the differences between actual and estimated fuel consumption spending in the Navy's O&M base spending for fuel.

DOD also produces additional sources of information that contain data that could be used by decision makers to measure the military services' fuel consumption, but these sources lack details in these same areas and are not provided to Congress. For example, DLA publishes annually a fact book in which, among other activities, it reports the total dollar amount of fuel it recorded having sold to the military services for that fiscal year, but the fact book does not report the fuel volume associated with these sales. Further, according to a DLA official, DLA does not submit the fact book to Congress with its annual budget request. As our analysis shows, there is no single document or set of documents that provides Congress with information on actual and estimated fuel volume and fuel consumption spending that it could use to evaluate the military services' budget requests for fuel. Unless DOD reports more complete information on its actual and estimated fuel consumption, Congress will not have full visibility over the amount of fuel volume the military services require on an annual basis for their activities, or trends in the military services' spending for non-war-related fuel consumption, which has varied considerably from budget estimates.

DOD's Approach for Determining the Fiscal Year 2017 Standard Price Methodology Is Consistent with Federal Budget Guidance and Leading Practices for a Credible Cost Estimate, but DOD Has Not Fully Documented Its Rationale for Estimating the Price

DOD's approach for determining the fiscal year 2017 standard price of fuel is consistent with federal budget guidance and leading practices for a credible cost estimate, but DOD has not fully documented its rationale for estimating the standard price. In 2014 and 2015, we found weaknesses with DOD's methodology for developing its standard price. DOD adjusted its methodology for establishing the fiscal year 2017 standard price that aligns with federal budget guidance and leading cost estimating practices because DOD used valid and reliable data and it assessed the relative risks and limitations of various pricing options. However, DOD has not fully documented its process for establishing the standard fuel price as we have previously recommended.

Prior Weaknesses Found with DOD's Standard Price Methodology

In July 2014, we found that DOD had not updated its approach to establishing the standard price for fuel to reflect current market conditions since 2007, nor had it documented its rationale for the assumptions it uses in estimating the standard price.²⁷ We recommended that DOD reevaluate its approach for establishing the standard price to allow DOD to develop more informed estimates and be better positioned to minimize risks and uncertainty resulting from changing market conditions. We also recommended that DOD document its assumptions, including providing detailed rationale for how it establishes the standard price.

In November 2015, we found that, consistent with our recommendation, DOD had evaluated a range of options to establish the standard price for

²⁷[GAO-14-595](#).

the President's fiscal year 2016 budget request and developed a new methodology.²⁸ However, we found that the new methodology did not reflect actual market conditions or fully account for risks to the reliability of DOD's fuel cost estimates. More specifically, we found that DOD had not used valid and reliable data on market conditions when evaluating options for adjusting its fuel pricing methodology because it used OMB's *Gas and Oil* price index as a dollar value rather than applying it in its analyses as a percentage to measure the change in prices from one year to the next.²⁹ Our analysis showed that applying the *Gas and Oil* price index as a measure of a change in fuel prices from one year to the next produced results that differed from what DOD found. For example, DOD applied the *Gas and Oil* price index for fiscal year 2016 as a dollar price of \$122.56 per barrel of refined fuel. In contrast, we calculated a refined fuel price estimate between \$58.10 and \$83.58, depending on how the Gas and Oil price index is applied to actual fuel prices.³⁰

Furthermore, we found that DOD's analysis of the methodology based on the use of the price index did not review and understand the limitations and risks to the reliability of its fuel estimate which, in this case, resulted from determining a projected fuel price that applied the price index to

²⁸[GAO-16-78R](#).

²⁹A price index is a normalized average that shows the change in the price over time from a reference year, which is defined as 100.0. An increase of 22 percent from that base period, for example, is shown as 122.0. According to an OMB official we spoke to in our prior work, the *Gas and Oil* price index is based on the Commerce Department's Bureau of Economic Analysis's *Motor Vehicle Fuel, Lubricants, and Fluids* price index. The *Motor Vehicle Fuel, Lubricants, and Fluids* price index, part of the Personal Consumption Expenditure component of the Consumer Price Index, reflects the regular domestic household use of motor fuel. According to the official, OMB adjusts the *Gas and Oil* price index for federal agencies use in developing budget estimates to account for a future projected price of crude oil.

³⁰To perform our analysis, we applied the value of the *Gas and Oil* price index to actual refined fuel prices paid by DOD. To do so, we first determined the percentage change in the *Gas and Oil* price index from one fiscal year to the next for fiscal years 2009 through 2016. We then determined a range of price estimates for the refined fuel portion of the standard price for fiscal years 2010 through 2016, using the annual percentage change from the *Gas and Oil* price index and actual refined fuel costs paid by DOD under three scenarios: (1) the average price paid by DOD for refined fuel in the previous fiscal year, (2) the price paid by DOD for refined fuel in September of the previous fiscal year, and (3) the average price paid by DOD for refined fuel for a 6-month period (April through September) of the previous fiscal year.

actual fuel prices that would be almost 2 years old at the time of DOD's budget request. According to its budget materials, DOD had a fiscal year 2016 estimate of planned fuel consumption totaling 81 million barrels of fuel, which, according to our analysis, led DOD to request in its fiscal year 2016 budget request \$9.9 billion for refined fuel based on the refined fuel portion of the standard price of \$122.56 per barrel of refined fuel.³¹ In contrast, our analysis found that the difference between the estimates for refined fuel when applying the *Gas and Oil* price index as a reflection of the change in prices from fiscal year 2014 would have resulted in a budget request based on the refined fuel portion of the standard price of between about \$8.6 billion and about \$8.9 billion, depending on how the price index was applied to fiscal year 2014 actual refined fuel prices.

As a result, we recommended that, in addition to fully implementing our prior recommendations, DOD use valid and reliable data on market conditions and review and understand the risks and limitations of using data, such as actual fuel price data from 2 years prior when it developed its standard price for fiscal year 2017 and future fiscal years. In commenting on our draft report in November 2015, DOD agreed or partially agreed with our previous recommendations but did not state the reasons for the partial concurrence or what actions it planned to take in response to our recommendations.

³¹To this refined fuel portion of its standard price, DOD added nonproduct costs of \$21.50 per barrel to arrive at its total standard price of \$144.06 per barrel for fiscal year 2016.

Fiscal Year 2017 Standard Price is Consistent with Federal Budget Guidance and Leading Practices for a Credible Cost Estimate, but DOD Has Not Fully Documented Its Rationale for Estimating the Price

For its fiscal year 2017 budget request, DOD adjusted its methodology to address our prior recommendations. According to documentation from the OUSD Comptroller, DOD evaluated three methodologies for developing the fiscal year 2017 standard price. The first option DOD evaluated used projections of the price of regular gasoline contained in the Energy Information Administration's³² November 2015 Short-Term Energy Outlook³³ to calculate a future price of regular grade gasoline upon which to base the standard price. The second and third options calculated a two-year percentage change in the *Gas and Oil* price index applied against two different periods of actual average refined product costs. One of these options used a 1-year average of DOD's actual refined fuel costs for fiscal year 2015; the other used a 5-year average of actual refined fuel costs for fiscal years 2011 through 2015. According to DOD's analysis, DOD chose the option using the percent change in the *Gas and Oil* price index applied against the most recent 1-year average of actual refined product costs.

An official with the OUSD Comptroller who oversees the bulk fuel program stated that several factors underpinned the department's decision to select the fiscal year 2017 standard price methodology. First, leadership within the department felt strongly that fuel pricing should be developed in a consistent manner for each budget cycle that is based on information included in the Administration's economic assumptions. Second, the methodology DOD selected provided an estimate that seemed reasonable compared with the actual fiscal year 2015 average price for refined petroleum products. Finally, the official noted that the methodology is based on actual fuel prices that were adjusted to account for projected market changes.

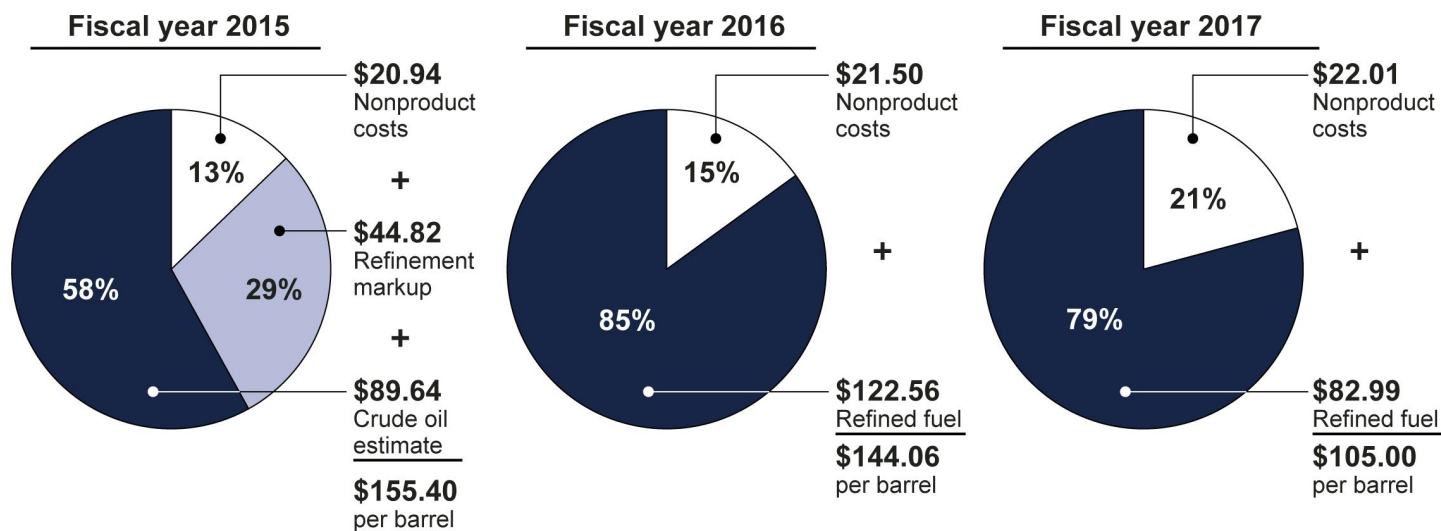
Figure 6 shows a comparison of how DOD calculated the fiscal year 2017 standard price with the approach it used in prior years. For fiscal year

³²Congress created the Energy Information Administration within the Department of Energy in 1977. As a statistical agency, it provides policy-independent data, forecasts, and analyses to promote sound policy making, efficient markets, and public understanding regarding energy and its interaction with the economy and the environment.

³³Produced on a monthly basis, the Energy Information Administration's *Short-Term Energy Outlook* reports forecasts and analysis of global and U.S. energy supply, demand, and prices for the following 18 months.

2017, DOD established the projected price of refined fuel at \$105 per barrel.

Figure 6: Comparison of the Components of DOD’s Fiscal Year 2015, Fiscal Year 2016, and Fiscal Year 2017 Standard Price



Source: GAO analysis of Department of Defense data. | GAO-16-644

Notes: Percentages may not add to 100 percent due to rounding. According to DOD officials, in fiscal year 2015 and prior years the refinement markup was determined based on a percentage of the forecasted crude oil price. This markup historically ranged from 30 percent to 50 percent of the price of crude oil. For fiscal year 2016, the refined fuel price equaled the value of the *Gas and Oil* price index provided by OMB in November 2014. For fiscal year 2017, DOD determined the refined fuel price by calculating the two-year percentage change in the value of the *Gas and Oil* price index from fiscal year 2015 to fiscal year 2017 and then applying this percentage change to the average actual refined fuel costs in fiscal year 2015. Nonproduct costs include facilities sustainment, restoration, and modernization; transportation; and storage costs.

We evaluated DOD’s standard price methodology for fiscal year 2017 and found that it is consistent with federal budget guidance and leading practices for a credible cost estimate because DOD used valid and reliable data and it assessed relative risks and limitations by reviewing various pricing options. OMB’s Circular No. A-11 requires that federal agencies’ budget submissions be consistent with OMB’s economic assumptions. Our *Cost Estimating and Assessment Guide* states that one characteristic of a credible cost estimate is the availability of valid data

that are suitable and relevant, and that data should be fully reviewed before being used in a cost estimate to understand the limitations and risks.³⁴ In our prior work, we reported that DOD has discretion over which economic assumptions provided by OMB to apply in developing its bulk fuel estimates for budgeting purposes.³⁵ For its fiscal year 2017 methodology, DOD (1) incorporated the administration's economic estimates and (2) applied the *Gas and Oil* price index against actual refined fuel prices to develop a price estimate that, according to DOD's analysis, it concluded was reasonable compared with the fiscal year 2015 average price for refined petroleum products.

While DOD revised its standard price methodology to address our prior recommendations, it has not fully documented its rationale for the assumptions it used in estimating the fiscal year 2017 standard price. For its fiscal year 2017 standard price, DOD documented parts of the methodology it used. Specifically, DOD detailed in an internal OUSD Comptroller memorandum the various options it considered, the reasons why it chose the methodology it used, and the calculations it used to arrive at its estimated standard price. However, we found that DOD has not documented its process for establishing the standard price in three areas. First, DOD has not documented a formalized process that describes the steps it will take on an annual basis to determine the standard price for future fiscal years. Second, documentation detailing the options DOD considered and the rationale behind the methodology it chose is not available to Congress and its fuel customers. Third, DOD has not documented the formal review and approval of the new methodology by senior Comptroller officials.

Our *Cost Estimating and Assessment Guide* states that a cost estimate should be supported by detailed documentation that describes how it was derived. According to the guide, the documentation should include, among other things, the estimating methodology used to derive the costs for each element of the cost estimate, and it should also discuss any limitations of the data or assumptions. Further, a well-documented methodology allows decision makers to understand and evaluate the budget request and make proper determinations. In partially agreeing with

³⁴GAO-09-3SP.

³⁵GAO-14-595.

our 2014 recommendation, DOD noted the department did not have a documented, specific, step-by-step process to develop the standard price but that it priced fuel by using a formal process that had been presented to the department's leadership, briefed to congressional staff, discussed with the administration, and reproduced in various instructional and informational briefings and papers.

The OUSD Comptroller official responsible for managing the bulk fuel program stated that the department does not have a similar formal process for determining rates for other commodities and working capital funds. The official stated that, therefore, DOD does not want to make the bulk fuel standard price determination unique and apart from these other commodities. However, because of concerns with the quality and transparency of information available to congressional decision makers and department fuel customers concerning the methodology selected each year and its application to relevant data used in estimating fuel rate prices for the next fiscal year, the Senate Armed Services Committee directed DOD to submit detailed guidance to the congressional defense committees no later than February 1, 2017, that includes the following elements:

- The steps DOD will take to develop and implement a process for the annual review and selection and application of an appropriate methodology for estimating fuel rate prices for the next fiscal year;
- The process for identifying an appropriate methodology to assess the accuracy of estimated fuel rate prices as compared with actual fuel prices for the most recent fiscal year; and
- The establishment of a detailed process for the annual development of estimated fuel rate prices for the next fiscal year, to include requiring documentation of the rationale for using one methodology over another for estimating the next fiscal year's fuel rate price and the limitations and assumptions of underlying data, and establishing a timeline for developing annual estimated fuel rate prices for the next fiscal year.³⁶

³⁶S. Rep. No. 114-255, accompanying S. 2943, a proposed bill for the National Defense Authorization Act for Fiscal Year 2017.

We continue to believe that documentation by DOD of its assumptions would provide greater transparency and clarify for fuel customers and decision makers the process DOD uses to set the standard price, as we recommended in 2014 and 2015.

Conclusions

The military services have reported actual spending on fuel consumption that differed from their fuel consumption budget estimates, attributing most of the differences to changes in operations and training that affected fuel consumption during the year of budget execution. The OUSD Comptroller takes some steps to validate the military services' fuel consumption estimates, but neither this office nor the military services have an approach to reconcile the military services' reported fuel consumption spending data with DLA's fuel sales during the annual budget development process. Having an approach to reconcile differences would provide DOD with a means to understand any discrepancies in its fuel consumption data and determine whether any actions are needed to better assess the accuracy of the military services' actual fuel consumption spending that it reports to Congress in annual budget requests. DOD's O&M budget materials provide some actual and estimated fuel consumption spending data but are limited in the amount of information they convey because they do not provide data on fuel volume or separate actual O&M base obligations for the military services' fuel consumption spending for day-to-day activities from their O&M OCO obligations. As a result, Congress does not have full visibility over the amount of fuel volume the military services require on an annual basis for their activities, or trends in the military services' spending for non-war-related fuel consumption, which has varied considerably from budget estimates. DOD adjusted the methodology it used to set the standard price in fiscal year 2017 to address our prior recommendations, but it has not fully documented the rationale it uses in the standard price process. As we previously reported, until DOD documents its rationale for how it establishes the standard price, fuel customers and decision makers will not have the transparency and clarity they need to understand the process and make fully informed decisions.

Recommendations for Executive Action

In order to improve the accuracy of the information included in the O&M budget justification material submitted to Congress and provide complete information to review the military services' fuel consumption spending requests, we recommend that the Secretary of Defense direct the Under Secretary of Defense (Comptroller), in consultation with the military services and DLA, to take the following two actions:

-
- Develop an approach to reconcile data on fuel consumption reported by the military services and fuel sales to the military services reported by DLA and take any appropriate corrective actions to improve the accuracy of actual fuel consumption spending data, and
 - Report complete fuel consumption information to Congress, to include actual and estimated fuel volume and actual O&M base obligations for fuel consumption spending separate from O&M OCO obligations. This information could be provided as part of DOD's annual O&M budget justification materials, or through other reporting mechanisms.

Agency Comments and Our Evaluation

We provided a draft of this report to DOD for review and comment. In its written comments, which are summarized below and reprinted in Appendix II, DOD concurred with the first recommendation and did not concur with the second recommendation.

DOD concurred with the first recommendation that it develop an approach to reconcile the military services' and DLA fuel consumption data. DOD stated that the OUSD Comptroller had established a working group with representatives from the military services and DLA to reconcile fuel sales reports. DOD further stated that the working group expected to complete its work to support the development of the President's Budget for fiscal year 2018.

DOD did not concur with the second recommendation that it report more complete fuel consumption information to Congress. DOD stated that it agreed that including additional fuel consumption detail could be useful information and stated that it will look at ways to incorporate additional data in upcoming budget submissions. However, DOD stated that it would be very difficult and labor intensive to implement a system to separate base from OCO data and cited several reasons. Among those reasons, DOD stated that many legacy financial systems currently in use cannot easily distinguish between base and OCO execution data. DOD also stated that manually identifying these data would be extremely labor intensive. However, DOD stated that once all DOD components convert from the legacy systems, the department should be able to report base and OCO obligations consistently and effectively. We acknowledge DOD's ongoing efforts to transition from its legacy systems; however, in our report, we note that fuel volume information is available and that the military services already provide the OUSD Comptroller with actual and estimated fuel volume data during the annual budget development process. Further, our report discusses the basic steps we took to calculate O&M base obligations separately from O&M OCO obligations

for fuel consumption spending with DOD's existing budget materials. These steps included compiling and summing data on actual O&M OCO obligations for fuel consumption spending reported in budget exhibits accompanying the military services' O&M OCO requests and subtracting these amounts from the total O&M obligations for fuel consumption spending that are reported in the budget exhibits accompanying the military services' O&M base budget requests. As we noted in our report, the budget exhibits include actual obligations for fuel consumption spending for the total of both O&M base and O&M OCO obligations combined. We then compared this amount to the estimates for fuel consumption spending included in the military services' O&M base budget request.

DOD also stated that it is already required to report total obligations to Congress by appropriation. However, neither the OMB circular that governs federal agencies' preparation, submission, and execution of their budgets nor relevant sections of the U.S. Code preclude the department from providing additional detail on O&M base obligations. As we discuss in our report, the military services generally over-estimated the amount of actual O&M base fuel consumption spending for the period we reviewed; therefore, without additional data that distinguishes between O&M base and O&M OCO spending, Congress does not have the information to assess trends in the military services' spending for non-war-related fuel consumption, which has varied considerably from budget estimates. Moreover, as we also noted in our report, DOD produces data in various sources that could be used by decision makers to measure the military services' fuel consumption. DOD could report additional information on actual O&M base obligations for fuel consumption spending as well as actual and estimated fuel volume as we recommended as part of DOD's annual O&M budget justification materials, or through other reporting mechanisms that the department determined would assist Congress in its decision making. Without more complete information, Congress does not have full visibility over the amount of fuel volume the military services require on an annual basis for their activities.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, the Under Secretary of Defense (Comptroller), the Secretaries of Army, Navy, and Air Force, and the Commandant of the Marine Corps. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-5431 or russellc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

A handwritten signature in black ink, appearing to read "Cary Russell". The signature is written in a cursive, flowing style.

Cary Russell
Director, Defense Capabilities and Management

Appendix I: Objectives, Scope, and Methodology

Our objectives were to (1) describe the military services' reported actual spending on fuel consumption compared to their budget estimates since 2012 and factors that were reported to have contributed to any differences; (2) assess the steps the Department of Defense (DOD) takes to report accurate and complete fuel consumption data in its annual budget requests; and (3) evaluate the extent to which DOD's approach for determining the fiscal year 2017 standard price charged to fuel customers is consistent with federal budget guidance and leading practices for a credible and well-documented cost estimate.

To describe how the military services' reported actual spending on fuel consumption compared to their budget estimates since 2012 and factors that were reported to have contributed to any differences, we analyzed DOD's operation and maintenance (O&M) budget justification materials for fiscal years 2012 through 2015. We focused our analysis on fiscal years 2012 through 2015 because this period covered the most recent complete year of DOD fuel sales and provided three years of cost data to analyze any trends. We identified the specific accounting lines in each O&M budget exhibit related to fuel for both O&M base and O&M Overseas Contingency Operations (OCO) fuel consumption.¹ We then compared the military services' reported actual obligations for fuel consumption spending that are contained in these accounting lines against the military services' budget estimates. To determine the reliability of the data, we obtained information on how the data were collected, managed, and used through interviews with and questionnaires to relevant officials and determined that the data presented in our findings were sufficiently reliable to present trends in this report on the military services' actual and estimated O&M spending for fuel consumption for fiscal years 2012 through 2015. We interviewed an official from the Office of the Under Secretary of Defense (OUSD) Comptroller, who is responsible for managing the bulk fuel program, and budget and financial management officials with the military services to better understand any factors that contributed to differences between actual and estimated fuel consumption.

¹The specific accounting lines we used in our analysis were DLA Energy (Fuel Products) (401), Service Fund Fuel (402) and Locally Purchased Fuel (937).

To assess the steps DOD takes to report accurate and complete fuel consumption data in annual budget requests, we analyzed DOD's budget justification materials for fiscal years 2012 through 2015, as well as military service and Defense Logistics Agency (DLA) fuel data. We interviewed an official from the OUSD Comptroller who is responsible for managing the bulk fuel program, officials with military service budget and financial management offices, and DLA to determine how O&M budget justification materials generally, and fuel consumption estimates specifically, are prepared, evaluated, and reported to Congress. We interviewed officials from each military service to determine how budget justification materials are prepared for their annual O&M budget requests. We interviewed officials from DLA to determine how it reports its fuel sales to the military services. To understand the differences between the military services' fuel consumption data and DLA fuel sales, we analyzed the military services' actual obligations for fuel consumption spending reported in their O&M budget materials for fiscal years 2012 through 2015 against DLA data on fuel sales to the military services for these same years. To determine the reliability of both the O&M budget justification data and DLA fuel sales data provided to us by DOD, we obtained information on how the data were collected, managed, and used through interviews with and questionnaires to relevant officials. We assessed the information against federal internal controls² and accounting standards³ that describe practices regarding how information should be recorded and communicated to management and others. We determined that the data were sufficiently reliable to present the military services' total O&M obligations for fuel consumption spending for fiscal years 2012 through 2015 and DLA fuel sales data to the military services for these same years. However, as discussed in this report, we identified differences in the fuel consumption data reported by the military services and DLA. To

²See GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: Nov. 1, 1999). These standards were in effect prior to fiscal year 2016 and cover the time period of DOD's data. The standards were subsequently updated. The updated standards went into effect on October 1, 2015.

³Federal Accounting Standards Advisory Board (FASAB), *Handbook of Accounting Standards and Other Pronouncements, as amended*, (Washington, D.C.: June 30, 2015). The Handbook contains the body of accounting concepts and standards for the U.S. government produced by the FASAB, whose mission is to serve the public interest by improving federal financial reporting through issuing federal financial accounting standards and providing guidance after considering the needs of external and internal users of federal financial information.

understand the differences between the military services' O&M base request for fuel and actual fuel consumption for O&M base programs and activities, we calculated O&M base spending, because DOD does not report this information separately from O&M OCO spending in its budget justification materials. To do this, we compiled and summed the O&M OCO obligations for fuel consumption spending that were reported in the O&M OCO budget materials for each military service for fiscal years 2012 through 2015 and subtracted this amount from total O&M obligations for fuel consumption spending reported in the military services' O&M base budget exhibits (which included the total of O&M base obligations and O&M OCO obligations). We then compared this amount to fuel consumption estimates included in the military services' O&M base budget requests for each fiscal year. We assessed this information against the *Standards for Internal Control in the Federal Government*⁴ and *Handbook of Federal Accounting Standards*⁵ on how information should be recorded and communicated to management and others.

To determine the extent to which DOD's approach for determining the fiscal year 2017 price charged to fuel customers is consistent with federal budget guidance and leading practices for a credible and well-documented cost estimate, we reviewed documentation on DOD's analysis of various methodologies it examined, as well as its justification for the one it ultimately chose to apply for fiscal year 2017. We did not evaluate the relative costs or benefits of the methodologies that DOD considered—such as the limitations or uncertainties that may be inherent in selecting one methodology over another. Specifically, we determined how DOD evaluated methodologies for setting the standard fuel price for fiscal year 2017. To better understand the steps DOD took, we

⁴See [GAO/AIMD-00-21.3.1](#).

⁵FASAB, *Handbook of Accounting Standards and Other Pronouncements, as amended*.

determined how it applied OMB's *Gas and Oil* price index⁶ when evaluating methodologies for setting the standard fuel price, compared to what it did in prior years. We also interviewed an official from the OUSD Comptroller, who is responsible for managing the bulk fuel program, about DOD's methodology for developing its standard price in fiscal year 2017 and its plans for determining the methodology in the future. We compared DOD's methodology for establishing the fiscal year 2017 standard price for budgeting purposes with OMB's Circular A-11,⁷ which governs federal agencies' budget development, and with our *Cost Estimating and Assessment Guide*,⁸ which is a compilation of best practices, including the characteristics of a credible and well-documented cost estimate, which federal cost-estimating organizations and industry use to develop and maintain reliable cost estimates.

We interviewed official, and, where appropriate, obtained documentation, from the following organizations:

- Office of the Under Secretary of Defense (Comptroller)
- Defense Logistics Agency – Energy
- Defense Logistics Agency – Finance
- Air Force Petroleum Agency
- Army Petroleum Center
- Naval Supply Systems Command

⁶A price index is a normalized average that shows the change in the price over time from a reference year, which is defined as 100.0. An increase of 22 percent from that base period, for example, is shown as 122.0. According to an OMB official, the *Gas and Oil* price index is based on the Commerce Department's Bureau of Economic Analysis's Motor Vehicle Fuel, Lubricants, and Fluids price index. The Motor Vehicle Fuel, Lubricants, and Fluids price index, part of the Personal Consumption Expenditure component of the Consumer Price Index, reflects the regular domestic household use of motor fuel. According to the official, OMB adjusts the *Gas and Oil* price index for federal agencies use in developing budget estimates to account for a future projected price of crude oil.

⁷OMB Circular No. A-11, *Preparation, Submission, and Execution of the Budget* (2015).

⁸GAO, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs*, [GAO-09-3SP](#) (Washington, D.C.: Mar. 2, 2009).

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- Office of the Assistant Secretary of the Air Force, Financial Management and Comptroller
 - Office of the Assistant Secretary of the Army, Financial Management and Comptroller
 - Office of the Assistant Secretary of the Navy, Financial Management and Comptroller

We conducted this performance audit from July 2015 to September 2016, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from the Department of Defense



OFFICE OF THE UNDER SECRETARY OF DEFENSE
1 100 DEFENSE PENTAGON
WASHINGTON, DC 20301-1100

AUG 17 2016

COMPTROLLER

Mr. Cary Russell
Director, Defense Capabilities and Management
U.S. Government Accountability Office
441 G Street, NW
Washington DC 20548

Dear Mr. Russell,

This is the Department of Defense (DoD) response to the GAO Draft Report GAO-16-644, "BULK FUEL: Actions Needed to Improve DOD's Fuel Consumption Budget Data," dated July 7, 2016 (GAO Code 100183). The Department is providing official written comments for inclusion in the report.

Sincerely,

Monique L. Dilworth
Director for Operations



GAO DRAFT REPORT DATED JULY 7, 2016
GAO-16-644 (GAO CODE 100183)

“BULK FUEL: ACTIONS NEEDED TO IMPROVE DOD’S FUEL CONSUMPTION
BUDGET DATA”

DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATION

RECOMMENDATION: In order to improve the accuracy of information included in the O&M budget justification material submitted to Congress and the completeness of information available to review the Military Departments’ fuel consumption spending requests, the GAO recommends that the Secretary of Defense direct the Under Secretary of Defense (Comptroller), in consultation with the Military Departments and DLA, to take the following two actions:

1. Develop an approach to reconcile data on fuel consumption reported by the Military Services and fuel sales to the Military Services reported by DLA and take any appropriate corrective actions to improve the accuracy of actual fuel consumption spending data; and
2. Report more complete fuel consumption information to Congress to include actual and estimated fuel volume and actual O&M base obligations for fuel consumption spending separate from O&M OCO obligations. This information could be provided as part of DoD’s annual O&M budget justification materials, or through other reporting mechanisms.

DoD RESPONSE:

RECOMMENDATION 1: Concur. The Office of the Under Secretary of Defense (Comptroller) (OUSD (C)) has established a working group with representatives from the Military Departments and the Defense Logistics Agency to reconcile the fuel sales reports. We expect to have the work completed to support the development of President’s Budget for fiscal year 2018.

RECOMMENDATION 2: Nonconcur. The Department agrees that including additional fuel consumption detail could be useful information and will look at ways to incorporate additional data in upcoming budget submissions. However, implementing a system to separate base from Overseas Contingency Operations (OCO) would be very difficult and labor intensive for several reasons:

1. Many legacy financial systems currently in use cannot easily distinguish between baseline and OCO execution. Once all Components convert from legacy financial systems, the Department should be able to report obligations for base and OCO programs across all appropriations consistently and effectively.
2. Monthly execution reports (e.g., SF-133 Report on Budget Execution and Budget Resources and AR 1002 Appropriation Status by Fiscal Year Program and Subaccounts) from the Defense Finance and Accounting Service (DFAS) do not delineate between base and OCO execution. Additionally, the AR 1002 report does not contain the granularity necessary to identify fuel related purchases.
3. The Department is required to report total obligations by appropriation per the Office of Management and Budget (OMB) Circular A-11 as well as 31 United States Code § 1511 through § 1514 and § 1554.
4. Due to limited resources as a result of headquarters reductions, the requirement to manually separately identify base and OCO execution in budget justification materials will be extremely labor intensive.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Cary Russell (202) 512-5431 or russellc@gao.gov

Staff Acknowledgments

In addition to the contact named above, Matthew Ullengren (Assistant Director), Robert Brown, Amy Bush, Adam Hatton, Amie Steele Lesser, Felicia M. Lopez, and Pedro Almoguera made key contributions to this report.

Appendix IV: Accessible Data

Agency Comment Letter

Text of Appendix II: Comments from the Department of Defense

Page 1

OFFICE OF THE UNDER SECRETARY OF DEFENSE

1100 DEFENSE PENTAGON

WASHINGTON, DC 20301 - 1100

COMPTROLLER

AUG 17 2016

Mr. Cary Russell

Director, Defense Capabilities and Management

U.S. Government Accountability Office

44 1 G Street, NW

Washington DC 20548

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Sincerely,

Monique L. Dilworth

Director for Operations

"BULK FUEL: ACTIONS NEEDED TO IMPROVE DOD'S FUEL CONSUMPTION BUDGET DATA"

DEPARTMENT OF DEFENSE COMMENTS TO THE GAO RECOMMENDATION

RECOMMENDATION: In order to improve the accuracy of information included in the O&M budget justification material submitted to Congress and the completeness of information available to review the Military Departments' fuel consumption spending requests, the QAO recommends that the Secretary of Defense direct the Under Secretary of Defense (Comptroller), in consultation with the Military Departments and DLA, to take the following two actions:

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2. Report more complete fuel consumption information to Congress to include actual and estimated fuel volume and actual O&M base obligations for fuel consumption spending separate from O&M OCO obligations. This information could be provided as part of DoD's annual O&M budget justification materials, or through other reporting mechanisms.

DoD RESPONSE:

RECOMMENDATION 1: Concur. The Office of the Under Secretary of Defense (Comptroller) (OU SD (C)) has established a working group with representatives from the Military Departments and the Defense Logistics Agency to reconcile the fuel sales reports. We expect to have the work completed to support the development of President's Budget for fiscal year 2018.

RECOMMENDATION 2: Nonconcur. The Department agrees that including additional fuel consumption detail could be useful information and will look at ways to incorporate additional data in upcoming budget submissions. However, implementing a system to separate base from Overseas Contingency Operations (OCO) would be very difficult and labor intensive for several reasons:

1. Many legacy financial systems currently in use cannot easily distinguish between baseline and OCO execution. Once all Components convert from legacy financial systems, the Department should be able to report obligations for base and OCO programs across all appropriations consistently and effectively.
2. Monthly execution reports (e.g., SF-133 Report on Budget Execution and Budget Resources and AR 1002 Appropriation Status by Fiscal Year Program and Subaccounts) from the Defense Finance and Accounting Service (DFAS) do not delineate between base and OCO execution. Additionally, the AR 1002 report does not contain the granularity necessary to identify fuel related purchases.
3. The Department is required to report total obligations by appropriation per the Office of Management and Budget (OMB) Circular A-1 1 as well as 31 United States Code § 1511 through § 1514 and § 1554.
4. Due to limited resources as a result of headquarters reductions, the requirement to manually separately identify base and OCO execution in budget justification materials will be extremely labor intensive.

Data Tables

Data Table for Highlights Figure: Military Services' Reported Actual Versus Estimated Fuel Consumption Spending, Fiscal Years 2012 through 2015

	Fiscal year	Actual spending	Estimated spending
Army	"2012"	3419	2579
	"2013"	2439	1232
	"2014"	3490	3400
	"2015"	1330	2277
Navy	"2012"	3782	4067
	"2013"	3730	4201
	"2014"	1729	4119
	"2015"	3281	4106
Marine Corps	"2012"	100	125
	"2013"	245	431
	"2014"	139	213
	"2015"	90	178
Air Force	"2012"	5705	4611
	"2013"	5053	5577
	"2014"	5115	6130
	"2015"	5386	6003

Data Table for Figure 2: Total Obligations for Fuel Consumption Spending Reported by the Military Services, Fiscal Years 2012 through 2015 (dollars in millions)

	Air Force	Marine Corps	Navy	Army
"2012"	5705	104	3782	3419
"2013"	5053	245	3730	2439
"2014"	5115	139	1729	3490
"2015"	5386	90	3281	1330

Data Table for Figure 3: Military Services' Reported Actual Obligations Versus Estimated Fuel Consumption Spending, Fiscal Years 2012 through 2015

	Fiscal year	Actual spending	Estimated spending
Army	"2012"	3419	2579
	"2013"	2439	1232
	"2014"	3490	3400
	"2015"	1330	2277
	Navy	"2012"	3782
"2013"		3730	4201
"2014"		1729	4119
"2015"		3281	4106
Marine Corps	"2012"	100	125
	"2013"	245	431
	"2014"	139	213
	"2015"	90	178
Air Force	"2012"	5705	4611
	"2013"	5053	5577
	"2014"	5115	6130
	"2015"	5386	6003

Data Table for Figure 4: Differences between the Military Services' Actual Obligations for Fuel Consumption Spending Reported in the President's Annual Budget Requests and Fuel Sales Reported by DLA, Fiscal Years 2012 through 2015

	Air Force	Marine Corps	Navy	Army
"2012"	-161	-912	44	-2696
"2013"	-45	-836	172	-2679
"2014"	1204	-2702	76	-2521

	Air Force	Marine Corps	Navy	Army
"2015"	-19	-922	23	-2218

Data Table for Figure 5: Amount and Percent Difference between the Military Services' O&M Base Obligations for Fuel Consumption Spending (as calculated by GAO) and the Military Services' O&M Base Budget Estimates, Fiscal Years 2012 through 2015 (dollars in millions)

	Air Force	Marine Corps	Navy	Army
"2012"	37	-13	26	39
"2013"	49	10	14	17
"2014"	57	18	281	27
"2015"	10	24	29	56

Data Table for Figure 6: Comparison of the Components of DOD's Fiscal Year 2015, Fiscal Year 2016, and Fiscal Year 2017 Standard Price

	Nonproduct costs	Refinement markup	Crude oil estimate	Refined fuel
Fiscal year 2015	13%	29%	58%	N/A
Fiscal year 2016	15%	N/A	N/A	85%
Fiscal year 2017	21%	N/A	N/A	79%

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