

Senator John McCain Presents



AMERICA'S MOST
WASTED



INDEFENSIBLE

**\$13 BILLION SPENT ON INCAPABLE SHIPS, BAD-BEHAVING
PENTAGON EMPLOYEES, AFRICAN RATS & MORE**

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INDEFENSIBLE: \$13 BILLION IN WASTEFUL DEFENSE SPENDING

Today, America confronts the most diverse and complex array of national security challenges since the end of World War II. With these growing threats and constrained fiscal resources, we simply cannot afford to waste our precious defense dollars on unnecessary or poorly performing programs.

When I became Chairman of the Senate Armed Services Committee, I made one of my top priorities a sustained effort to root out the wasteful spending that edges out spending on the real military capabilities needed to defend our nation. This report is the latest in a series of oversight reports I've published on defense spending that highlight the misplaced spending priorities of both the Congress and the Department of Defense (DOD). It found more than \$13 billion in wasteful defense spending across the Department, including:

- \$12 billion for 26 Littoral Combat Ships with no proven combat capability
- \$458 million paid out inappropriately for travel expense reimbursements
- \$375 million for Missile Defense Agency (MDA) targets that weren't used or didn't work
- \$58 million for the Navy's experiments with alternative fuel sources for its Great Green Fleet
- \$12 million for defective spare parts that will need to be replaced or refunded
- \$1 million for travel claim reimbursements for unauthorized expenses at casinos and strip clubs

If DOD is going to continue to perform its mission and meet our high expectations, it is going to have to produce effective military forces in the most efficient manner possible. This will require the continual and careful weighing of current forces and existing programs against the necessary future capabilities, and wherever possible, the elimination of the wasteful programs that threaten to undermine current and future military readiness. This oversight report should help inform that discussion and eradicate the endemic, wasteful spending due to mismanagement that is so detrimental to our national defense.

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\$12.4 BILLION FOR 26 LITTORAL COMBAT SHIPS DESPITE PRACTICALLY NO PROVEN COMBAT CAPABILITY

DOD's development of the Littoral Combat Ship (LCS) is an unfortunate and classic example of acquisition gone awry. Initially expected to cost \$220 million per ship and to deliver its first combat capability in mine countermeasures in 2008, the LCS program unit cost has more than doubled to \$478 million, and the mine countermeasures capability is still not operational and not expected to be until 2020.¹



In 2002, the Navy first requested Congress authorize funding for the LCS program. After reviewing the Navy's plan, the consensus of the Members on the Armed Services committees was the "LCS has not been vetted through the [Pentagon's top requirements-setting body, called the] Joint Requirements Oversight Council," and "the Navy's strategy for the LCS does not clearly identify the plan and funding for development and evaluation of the mission packages upon which the operational capabilities of LCS will depend."² Despite these concerns, Congress approved funding for the LCS. As a result, the Navy awarded the first LCS construction contract in 2004 without well-defined requirements, a stable design, realistic cost estimates, or a clear understanding of the capability gaps the ship was needed to fill.

In 2010, after the LCS unit cost had more than doubled, the Navy finally began to bring LCS costs under control.³ With Congressional approval, the Navy overhauled and restructured the LCS program and, since then, the LCS program unit cost has

¹ Unit costs and initial operational capability dates are from the Government Accountability Office, *Littoral Combat Ship and Frigate: Congress Faced with Critical Acquisition Decisions*, GAO-17-262T, December 2017, p. 5-6. Costs are listed in inflation-adjusted constant fiscal year 2005 dollars. An average procurement unit cost of \$478 million for a quantity of 26 ships equates to \$12.4 billion in overall cost growth, which is listed in the banner.

² Statement of managers accompanying the Bob Stump National Defense Authorization Act for Fiscal Year 2003 (Public Law 107-314); November 12, 2002; p. 562.

³ Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapon Programs*, GAO-10-388SP, March 2010, p. 95.

stabilized. Today, 65 percent of the planned 40-ship LCS fleet has either been delivered to the Navy (8 ships), is under construction (14 ships), or is on contract (4 ships).

Meanwhile the Navy had been separately funding development of nearly a dozen new mine countermeasures systems. Although the Navy expected to use these on LCSs, their development lagged behind. This marked the beginning of a disconnect between the development of the LCS ship itself—the seaframe—and the mission packages it would carry that continues to plague the LCS program.

Unique to the LCS among U.S. Navy ships, the ship’s combat capability comes from three mission packages – mine counter-measures (MCM), surface warfare (SUW), and anti-submarine warfare (ASW). LCS seaframes outfitted with one of these packages would launch and recover weapons and sensors. The Navy plans to deliver each of these packages in increments of capability.⁴ The three packages have a combined total program cost of \$6.9B.⁵ The Navy had planned to field these packages in tandem with the seaframes to provide their warfighting capability, which required reaching initial operational capability (IOC) in MCM in 2008, SUW in 2010, and ASW in 2010.⁶

However, the Navy failed to meet to its own commitment to deploy LCS seaframes with these mission packages in part because Navy leaders prioritized deploying a ship with no capability over completing necessary mission package testing.⁷ As a result, the only capabilities that have achieved IOC today are 30 mm guns with a range of about two miles, as well as the ability to launch and recover helicopters and small boats. This is a very modest accomplishment given potential enemies’ small combatants carry guns with ranges in excess of 7 miles and missiles that can reach more than 100 miles.

Meanwhile, the MCM, ASW, and remainder of the SUW mission packages are a cumulative 26 years delayed and 13 mission packages have been delivered to the

⁴ Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapon Programs*, GAO-16- 329SP, March 2016, p. 107.

⁵ Ibid.

⁶ The initial operational capability dates are from the Government Accountability Office, *Littoral Combat Ship and Frigate: Congress Faced with Critical Acquisition Decisions*, GAO-17-262T, December 2017, p. 6.

⁷ Director of Operation Test & Evaluation, *Fiscal Year 2015 Annual Report*, p. 231.

Navy without demonstrating the minimum requirements.⁸ In other words, U.S. taxpayers have bought 26 ships and 13 mission packages that have demonstrated next-to-no combat capability.

With or without the mission packages, keeping the LCS seaframe itself underway at sea has also been challenging. Despite commissioning the first ship in 2008, the Navy continues to discover “first-of-class” problems. Since 2013, five of the eight LCS delivered have experienced significant engineering casualties, resulting in lengthy in port repair periods, including during all three LCS deployments.⁹ Amazingly, despite nearly no proven LCS combat capability and persistent debilitating engineering issues, the Navy is charging ahead with an ambitious plan that keeps most ships deployed more than half the time, stationed around the world far from support facilities in the United States. In contrast, most Navy destroyers are planned to be deployed from the United States for less than 25 percent of their service lives. The rush to put four ships forward in Singapore by 2018 without proven combat capability and maintain a deployment tempo more than twice that of destroyers is a recipe for more wasted taxpayer dollars.

Although the LCS may yet deliver some capability, the nation still needs a capable small surface combatant that addresses the LCS’s critical shortfalls, including the ability to: attack enemy surface ships at over-the-horizon ranges with multiple missile salvos; defend nearby non-combatant ships from air and missile threats as an escort; conduct long-duration escort or patrol missions, including hunting enemy submarines, without frequent refueling; and exhibit robust survivability characteristics.

Fortunately, DOD has proposed curtailing the LCS program at 40 ships and down-selecting to a single ship design. Given the cost overruns, mission package testing woes, and rate of engineering failures, reducing the size of this program is a necessary first step. The Navy must also accept the reality of this program by: reducing the deployment model to a sustainable level more in-line with destroyers,

⁸ Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapon Programs*, GAO-16- 329SP, March 2016, p. 107.

⁹ Data provided by the Navy in November 2016. In 2013, *USS Freedom* suffered generator and combining gear failures requiring more than six months in repairs. In 2016, *USS Freedom* suffered a main engine casualty with repair duration to be determined. In 2016, *USS Fort Worth* suffered a combining gear failures and remained in Singapore for six months for repairs. In 2016, *USS Coronado* suffered a water jet failure requiring 24 days to repair. In 2015, *USS Milwaukee* suffered a clutch failure requiring more than a year and counting to repair. In 2016, *USS Montgomery* suffered a waterjet failure and hull cracks with repair duration to be determined.

delaying overseas deployments until combat capabilities are proven and onboard, increasing in-house technical support particularly related to engineering and propulsion systems, conducting a bottom-up manpower review to ensure enough sailors are assigned for the tasks required, and transitioning to a new small surface combatant as quickly as possible.

The LCS continues to experience new problems, but it is not a new program. That is why the Navy must not delay in reconciling their aspirations for the LCS with the program's troubled reality.

\$458 MILLION IN IMPROPER TRAVEL REIMBURSEMENT PAYMENTS

DOD spent nearly \$6 billion on travel in fiscal year 2014, \$458 million of which was improperly paid out because Department officials simply failed to follow existing policies and procedures and approved travel expense reimbursements for airfare, hotels, and rental cars without receipts, incomplete vouchers, or vouchers with amounts that did not match the receipt.¹⁰

An improper payment is any payment that should not have been made or was made in an incorrect amount.¹¹ It is a symptom of the Department’s notoriously poor financial management practices that usually results from untimely or inaccurate entry of information into pay systems. By law, DOD is required to make efforts to reduce its improper payment errors.¹² However, years of DOD efforts to mitigate payment errors have failed to do so—as shown in the table below, fiscal year 2015 is the fourth consecutive year DOD’s travel payment program has failed to reach improper payment reduction targets, and the amount of improper payments has actually *increased* each year. The DOD Inspector General (DOD IG) found the problem to be pervasive throughout the military services: a review of about 5,000 random military travel vouchers found that all vouchers had at least one error.

DOD Travel pay Program Estimated Improper Payment Rates and Amounts (in millions)¹³

Fiscal Year	Outlays	Estimated Improper Payment Rate (percent)	Estimated Improper Payments	Estimated Over Payments	Estimated Under Payments
2012	8,400	5.0	419.3	363.9	55.4
2013	7,300	6.5	474.8	421.1	53.7
2014	6,600	7.0	458.2	424.7	33.5
2015	6,600	7.9	520.4	487.6	33.8

¹⁰ Department of Defense Inspector General, *DoD Actions Were Not Adequate to Reduce Improper Travel Payments* (DODIG-2016-060) (Washington, DC: Department of Defense Inspector General, March 10, 2016), <http://www.dodig.mil/pubs/documents/DODIG-2016-060.pdf>.

¹¹ “Office of Federal Financial Management Improper Payments,” Office of Management and Budget, n.d., https://www.whitehouse.gov/omb/financial_fia_improper.

¹² *Improper Payment Elimination and Recovery Improvement Act (IPERA) of 2012*, Pub. L. No. 112-248 (2001).

¹³ Department of Defense, *FY 2012 DOD Agency Financial Report, FY 2013 DOD Agency Financial Report, FY 2014 DOD Agency Financial Report, FY 2015 DOD Agency Financial Report* (Washington, DC: Department of Defense (Comptroller), 2012-2015), <http://comptroller.defense.gov/Financial-Management/Reports/afr2015/>.

The DOD IG identified two key points of failure for the improper travel payments:

- Human error – authorizing officials are not following protocol and are approving deficient vouchers, even after receiving remedial training, and;
- System error – the Defense Travel Management Office (DTMO) Compliance Tool system that is supposed to automate the voucher review process—and for which the department spent \$630,000 to develop—is unable to identify when a voucher is missing appropriate documentation or when receipts do not agree with amounts claimed.

Though the Department conducted research and analysis and implemented corrective actions to address the approval of deficient vouchers for payment, its corrective actions were undermined because it failed to identify the underlying reasons *why* the improper payments were processed. For example, although inaccurate per diem rates accounted for over 50 percent of improper payments in fiscal year 2014, the Department did not identify the root causes for why the authorizing officials approved the inaccurate rates, so any remediation of training or policy could not be specifically tailored to the root cause of the error.

Moreover, both the Government Accountability Office (GAO) and the DOD IG have reported that the Department's methods for sampling and estimating improper payments is inadequate.¹⁴ To estimate improper payments within the travel payment program, the Department's payment services provider—the Defense Finance and Accounting Service (DFAS)—selects a simple random sample of vouchers from the entire population of program outlays, without accounting for the varying complexity, dollar amount, or risk associated with each voucher, and reviews them for errors.¹⁵ DFAS calculates the error rate for the simple sample and then scales it up to the larger population to create a projected overpayment number.

By relying on this method, the Department is very likely understating its improper payment rates. Even more concerning is the fact that the Department only attempts to recover improper payments in the sample population—overpayments in the larger population are essentially written off. Only \$5.5 million of the fiscal year 2014 travel overpayments were subject to recovery, indicating that DFAS did not take any effort to recapture around 99% of the overpayments from this program.

The Department's continued failure to comply with the law and to reduce improper payments by resolving payment system and process errors is costing U.S. taxpayers billions of dollars in unrecovered overpayments every year. The travel program is

¹⁴ DFAS has not implemented the sampling recommendations from the GAO report, which were echoed in a 2015 DOD IG report, for the travel payment program.

¹⁵ The Office of Management and Budget advises using a complex sample to account for these differences instead.

only one of the programs in which needless waste of this scale is occurring. Last year, the Department reported improper payments in excess of \$1.2 billion across all its accounts, a 26 percent increase over the previous year.¹⁶ And, given the flaws in the estimating model, the real number is likely higher.

¹⁶ Department of Defense, *FY 2015 DOD Agency Financial Report, Other Information* (Washington, DC: Department of Defense (Comptroller), 2015), http://comptroller.defense.gov/Portals/45/Documents/afr/fy2015/4-Other_Information.pdf.

\$375 MILLION SPENT ON MISSILE DEFENSE AGENCY TARGET THAT WEREN'T USED OR DIDN'T WORK

Sophisticated ballistic missile technology is increasingly available to countries hostile to the United States and our allies, and there is a rising threat of those technologies falling into the hands of non-state actors.¹⁷ The Missile Defense Agency (MDA) is developing the Ballistic Missile Defense System (BMDS)—our first line of defense—which uses interceptors to take out enemy missiles before they can strike their intended targets. MDA builds test targets that simulate enemy missiles during interceptor testing. Testing generates data critical to assess interceptor performance and sends “a very credible message to the international community on our ability to defeat ballistic missiles in flight, thus reducing their value to potential adversaries.”¹⁸



However, a series of Congress-directed GAO reports show MDA has been woefully deficient in developing test targets. MDA started a medium-range target program in 2003, fell behind schedule, and then had to either substitute another target during a test or entirely scrap the test, leading to cost growth and waste in the program.¹⁹ After investing at least \$42 million, and with little to show for it, MDA suspended the program in 2008.²⁰ But just two years later, MDA restarted work on the target under an existing contract—without competition. The plan was to deliver five targets for \$321 million.²¹ Instead, after spending \$333 million more, MDA only delivered two complete targets.

During a highly complex test of a new interceptor in 2015, MDA’s brand new target failed.²² Unfortunately, this is not an isolated incident. Developing a medium-range target typically costs about \$100 million, with first delivery in three to five years.

¹⁷ "Threat," U.S. Department of Defense Missile Defense Agency, August 29, 2016

¹⁸ "Testing," U.S. Department of Defense Missile Defense Agency, August 29, 2016.

¹⁹ The extended Medium Range Ballistic Missile (eMRBM).

²⁰ Government Accountability Office, *Defense Acquisition: Sound Business Case Needed to Implement Missile Defense Agency’s Targets Program* (GAO-08-1113) (Washington, DC: U.S. Government Accountability Office, September 26, 2008), <http://www.gao.gov/assets/290/281962.pdf>.

²¹ Government Accountability Office, *Missile Defense: Opportunity Exists to Strengthen Acquisition by Reducing Concurrency* (GAO-12-486) (Washington, DC: U.S. Government Accountability Office, April 20, 2012), <http://www.gao.gov/assets/600/590277.pdf>.

²² GAO, *Missile Defense: Ballistic Missile Defense System Testing Delays Affect Delivery of Capabilities*. [GAO-16-339R](https://www.gao.gov/products/GAO-16-339R), (Washington, D.C. Apr 28, 2016).

But MDA spent at least \$375 million on this first target, making it MDA's most expensive medium-range target. And it took nearly 10 years to deliver. MDA has since scrapped the unaffordable program.

MDA must manufacture its targets on time to achieve the goals of its intercept test program, which is critical to demonstrating that MDA's interceptors actually work.

\$58.6 MILLION ON NAVY EXPERIMENTS WITH ALTERNATIVE FUEL FOR THE GREAT GREEN FLEET

There are several causes of waste in DOD: cumbersome regulation, poor management, perverse bureaucratic incentives, and more. But adherence to political dogma can be among the most expensive, as demonstrated by Secretary of the Navy Ray Mabus's effort to invest in alternative sources of energy and develop the so-called "Great Green Fleet."

Under Secretary Mabus's direction, the Navy has pursued a variety of efforts to alter substantially the mix of fuels that it uses to power its ships, aircraft, ground vehicles and installations. Convinced of the necessity of freeing the Department from its dependence on petroleum, Secretary Mabus announced in the fall of 2009 that the Navy's goal would be to ensure at least 40 percent of its total energy consumption came from alternative sources.²³ Unfortunately, not only has the Navy failed to meet its goal, but the alternatives it explored have been without exception far more costly to taxpayers than traditional petroleum products.

Given the large fuel energy consumption by DOD, and the history of occasional oil shortages and resulting price spikes, a careful and thorough examination of alternative fuels is certainly prudent. Although in minor amounts in terms of volume, the Department has aggressively pursued alternatives. GAO estimated that, between fiscal year 2007 and fiscal year 2014, DOD purchased 32 billion gallons of conventional petroleum products at a cost of \$107.2 billion or *\$3.35 per gallon*. During the same period, it purchased two million gallons of alternative fuel at a cost of \$58.6 million or *\$29.30 per gallon*.²⁴

One prominent Navy venture in this area was a very public demonstration of Green Fuel potential during the 2012 Rim of the Pacific (RIMPAC) exercise in and around the Hawaiian Islands. In this exercise, the "Great Green Strike Group" reportedly used a blend of 50 percent traditional bunker fuel and 50 percent biodiesel on all the ships of the Carrier Strike Group (except the nuclear-powered aircraft carrier USS *Nimitz* (CVN-68)). According to transportation fuels analyst and retired Navy officer T.A. Kiefer, this 2012 50/50 mix was an expensive one, "with the neat biofuel costing *\$26.75 per gallon*, and the petroleum portion costing *\$3.25 per gallon*." This netted an average cost of \$15 per gallon, more than four times the cost of traditional petroleum alone.²⁵ In response to the excessive costs incurred in these

²³ Paula Paige, "SECNAV Outlines Five 'Ambitious' Energy Goals," Office of Naval Research, Oct 16, 2009, http://www.navy.mil/submit/display.asp?story_id=49044.

²⁴ Government Accountability Office, *DOD's Investments in Alternative Fuels* (GAO-15-674) (Washington, DC: U.S. Government Accountability Office, July 2015), p.13, <http://www.gao.gov/assets/680/671667.pdf>.

²⁵ Ship and Bunker News Team, "Latest US Navy Biofuel Bunkers Are Bad For the Environment, Expensive, Barely Biofuel At All, Says Critic," *Ship & Bunker*, July 6, 2016,

demonstrations, Congress passed legislation prohibiting the Pentagon from buying biofuels in mass unless the price is competitive with that of petroleum.²⁶ Unfortunately, the Department does not appear to have translated this mandate into specific percentages or cost caps within which Energy, Defense, or Navy contracting officials must determine the “competitiveness” of fuel bids.

Prudent research and experimentation with alternatives appears to have given way to dogma in these efforts. According to maritime industry sources, the Navy’s most recent (Summer 2016) “green” endeavor, touted as a success by the Navy, involved the use of a blend of 94.5 percent bunker fuel and 5.5 percent palm seed oil-based biomass fuel manufactured by the Italian company Eni and transferred into the USS *Mason* (DDG-87) from an Italian Navy tanker. While an improvement over the earlier \$15 per gallon figure, in *Ship & Bunker’s* estimate this 94.5/5.5 mix amounts to a cost per gallon of roughly 35 percent greater than the typical large-port fuel price at the time of its use.²⁷ By the Navy’s estimate, this biofuel blend cost \$2.20 per gallon for the 15,000 gallons of this alternative fuel transferred to the USS *Mason*.

The Navy obtained the 94.5/5.5 alternative fuel through an Acquisition and Cross-Servicing Agreement (ACSA) with the Italian Navy. According to a Navy representative, “[t]he reimbursement for this bunkering took the form of an equal value exchange, so no monetary payment was made.” At the time, the contracted cost of the Navy-preferred F-76 distillate fuel that was available in the Mediterranean was \$1.90 per gallon.²⁸

DOD is one of the largest consumers of energy in the country, with an estimated 3.8 million barrels of petroleum and other fuel products purchased in 2014 at a cost of around \$14.4 billion. A substantial portion of that figure—roughly one third—was consumed by the Navy, and thus it has an obligation to strictly account for the billions of dollars it spends each year on fuel and other energy. It also must ensure that this great sum procures the best combination of effectiveness and efficiency possible. After seven years of very expensive and time-consuming experiments with fuel alternatives, the Navy appears to have run aground on the reality of economics. Rather than recognize the effort for what it is—a failed, politically-driven attempt to change the market—the Navy has grasped for any lifeline on which it could hang to claim “success” in the area of an “operational” alternative fuel.

<http://shipandbunker.com/news/world/143015-latest-us-navy-biofuel-bunkers-are-bad-for-the-environment-expensive-barely-biofuel-at-all-says-critic>.

²⁶ Limitation on procurement of drop-in fuels, 10 U.S.C. § 2922h (2015).

²⁷ Ship and Bunker News Team, “Latest US Navy Biofuel Bunkers Are Bad For the Environment, Expensive, Barely Biofuel At All, Says Critic,” *Ship & Bunker*, July 6, 2016,

<http://shipandbunker.com/news/world/143015-latest-us-navy-biofuel-bunkers-are-bad-for-the-environment-expensive-barely-biofuel-at-all-says-critic>.

²⁸ Department of Navy LA to Senate Armed Services Committee, September 23, 2016 and October 3, 2016, Responses to Staff Questions regarding *Ship & Bunker* article of July 6, 2016.

Our ships, aircraft, Sailors and Marines have a real world mission to accomplish at sea. Nuclear power provides unique tactical and operational advantages to our submarine and aircraft carrier forces. For the remaining forces, widely-available petroleum bunker and aviation fuels provide the essential capacity for the Navy to function and fight as necessary. The Navy's leadership cannot be allowed to jeopardize that capacity by wasting millions of dollars on ideologically-driven alternative energy experiments.

\$12.3 MILLION SPENT ON DEFECTIVE SPARE AVIATION PARTS

The DOD IG recently issued a report that found DOD contractors delivered more than 200 different types of defective aviation parts estimated at a cost of \$12.3 million.²⁹ To add insult to injury, DOD failed to require the contractors to replace or refund the defective parts.



The Defense Logistics Agency's (DLA) Aviation activity has responsibility for acquiring spare parts for things like safety equipment, propellers, and engines supporting DOD's helicopters, bombers, and fighter aircraft. However, sometimes contractors deliver defective parts not built according to design, improperly assembled, or use incorrect materials.

According to DOD's rules and processes for ensuring the quality of spare parts, the discovery of a defective component should trigger an investigation to determine how significant the defect is, as well as how many of the parts are in DOD's inventory. A DOD Product Quality Deficiency Report should then document the defect, enabling DOD to seek "restitution"—that is, to ask the contractor to replace or refund the defective parts. Due to incomplete accounting, ineffective coordination, and/or simple absence of follow-through, DLA has failed to seek such restitution consistently, according to the DOD IG. The Department is not only missing opportunities to recover taxpayer money from contractors making defective parts, but the parts often remain in DOD's inventory, posing a risk to the operation and maintenance of military aircraft and the missions they support.

The examples in the table below illustrate how DLA has been throwing taxpayer money away and potentially endangering our service members and their missions in the process.³⁰

²⁹Department of Defense Inspector General, *Defense Logistics Agency Aviation Can Improve its Processes to Obtain Restitution From Contractors That Provide Defective Spare Parts* (DODIG-2016-052) (Washington, DC: Department of Defense Inspector General, February 23, 2016), http://www.dodig.mil/pubs/report_summary.cfm?id=6810.

³⁰ DOD IG reviewed Product Deficiency Reports closed between January 2014 and June 2014.

Part	Defect	Why No Restitution?	Value
Power Cable Assembly (\$4,090 ea.)	Cable splice that could cause short circuit, equipment damage, or death	DLA aviation recommended part destruction instead of return/follow-up with the contractor	16 parts, \$65,440
Wiring Harnesses (\$657 ea.)	Did not use proper connectors, did not cover wires	Multiple quality reports filed for the same contractor, but DOD didn't account for affected parts in inventory	203 parts, \$133,371
C-5 Aircraft Co-Pilot Control Wheel (\$35,909 ea.)	Incorrect machining of wheel recess and backwards assembly of electrical bundle	Ineffective coordination on inventory and process for returns	30 parts, \$1,077,270

In response to the audit, the DLA is planning to review deficiency reports closed between January 2014 and November 2015 to identify mission critical and high-value items to pursue, and to review the responsibilities and procedures for discovering and handling defective parts in order to improve their effectiveness.

AT LEAST \$150 MILLION FOR SHIPBUILDERS TO FIX THEIR OWN MISTAKES

The Navy has been paying its shipbuilders millions of dollars to fix thousands of defects—like peeling paint, or cracks in a ship’s hull—even when a defect is the shipbuilder’s fault.³¹ This means the Navy pays twice: once for original construction, and then again for the fix. And even after that, sometimes the shipbuilder profits from fixing the defect. How is this happening?



The Navy paid 66% of cost to fix a shipbuilder’s defect; Coast Guard got shipbuilder to pay 70%

The Navy has been consistently accepting ships from the shipbuilder that had a lot of defects, so Congress asked GAO to look at how things like warranties or guarantees were being used to ensure quality.³² From the GAO report, it is evident that the Coast Guard and commercial shipbuilders are using warranties, and have

³¹ GAO, *Navy Shipbuilding: Opportunities Exist to Improve Practices Affecting Quality*, GAO-14-122 (November 19, 2013) and GAO, *Navy and Coast Guard Shipbuilding: Navy Should Reconsider Approach to Warranties for Correcting Construction Defects*, GAO-16-71 (March 3, 2016). The exterior hull paint of the Amphibious Transport Dock (LPD) 25 began peeling shortly after delivery, because the shipbuilder did not prep the surface properly in between coats. 17 cracks were identified aboard the Littoral Combat Ship (LCS) 1 following nearly 30 months of operation, including post delivery trials, early deployment, and fleet operations.

³² GAO-16-71. Warranties give the government a contractual right to direct the correction of defects at the contractor’s expense. Guarantees are Navy-specific contractual mechanisms that provide for the correction of defects; but unlike warranties are not covered in Federal Acquisition Regulation.

been more successful than the Navy in holding shipbuilders financially responsible for defects—the right thing to do when a customer receives a defective product.³³

Apparently the Navy exclusively uses guarantees, not warranties, in its shipbuilding contracts. Although the Navy’s practice of using a guaranty goes back 50 years, Navy officials acknowledge the guaranty was being used for other reasons, and not to ensure ship quality.³⁴ The Navy’s guaranty provision ensures that the shipbuilder performs the work to fix the defect, but the Navy pays for that work instead of the shipbuilder, even when it is agreed the shipbuilder made the mistake. For the warranties the Coast Guard uses, the government has guidance and training on how to structure and implement them to achieve quality objectives, as well as clear legal recourse options.³⁵

GAO found that Navy guarantees on four ships have resulted in the Navy paying shipbuilders \$5.36 million to correct defects that were the shipbuilders’ fault.³⁶ If this is a typical sample, the Navy stands to pay at least \$150 million more to fix defects on the 25 ships delivered between 2010 and 2015. “At least,” because this figure is actually expected to grow. After the limitation of liability is reached—which the Navy is setting far below its own guidance—the Navy typically awards follow-on contracts to fix additional defects.³⁷ For example, the limitation of liability for LPD 25 was just \$1 million, which is less than one tenth of one percent of the ship’s target price. Ships in the troubled LCS program fared worse: for LCS 3 the limitation of liability was only \$100,000, and for LCS 4, it was actually zero.³⁸

Prevalent shipbuilding contracting approaches using guarantees shield shipbuilders from being held fully financially responsible for defects even when the shipbuilder is technically responsible.³⁹ The use of guarantees can also impede transparency. Under a guaranty, the Navy may not track payments and defects because claims are not differentiated from other costs. The Navy’s practice of awarding follow-on, cost-reimbursement contracts to correct remaining defects—under which the

³³ GAO-16-71. The Coast Guard generally uses warranties but has also used the Navy’s guarantee provision. Commercial shipbuilders use warranties.

³⁴ In GAO-16-71 report, the Navy officials did not have a uniform understanding of the Navy’s objective for using a guaranty: some attributed it to maintaining a contractual relationship with the shipbuilder for parts and labor, others indicated it was for engineering services after delivery.

³⁵ GAO-16-71. The Federal Acquisition Regulation (FAR) subpart 46.7 applies to warranties and provides the government with a contractual right for the correction of defects, at the contractor’s expense, notwithstanding other requirements of the contract regarding inspection and acceptance.

³⁶ GAO-16-71. The ships are: San Antonio Class Amphibious Transport Dock LPD 25, Littoral Combat Ships 3 and 4, and Arleigh-Burke Class Guided Missile Destroyer DDG 112.

³⁷ GAO-16-71. The Navy’s standard clause on limitation of liability states that it should be set at two percent of the target construction cost of the ship or an amount to be determined by the program.

³⁸ GAO-16-71.

³⁹ GAO-16-71. This includes awarding fixed-price incentive fee contracts for construction that feature government-shipbuilder cost sharing above the target price, as well as awarding standalone contracts or modifications to existing contracts to fix defects.

shipbuilder also earns fee (and therefore a profit)—is a disincentive for shipbuilders to deliver high quality construction to the Navy on the first try.⁴⁰

Navy officials shared their belief that the Navy’s history of using guarantees as part of their overall approach lowers construction costs for the ship, as compared with pricing a warranty. However they had no data or basis to make this comparison, and GAO’s report reveals they are clearly missing opportunities. Recognizing the unacceptable potential for waste and lack of accountability, this year’s defense authorization bill requires future Navy shipbuilding contracts to include a warranty of at least one year. This will not do anything to defray the \$150 million the Navy may have to pay shipbuilders for ships already delivered or under contract, but it marked an important first step in staving off future wasteful spending.

⁴⁰ GAO-16-71.

\$352 MILLION ON DOD-FUNDED DOCTORATE DEGREES

Since 2005, DOD has spent \$352 million on graduate degree fellowships for 3,200 U.S. citizens and nationals through the National Defense Science and Engineering Graduate (NDSEG) Fellowship program, but those fellows incurred no further obligation to DOD as a result of that taxpayer investment.⁴¹

However, the return on investment for these fellowships is unclear. Besides not incurring any military or other government service obligation at the end of their fellowship, nor is there a requirement that NDSEG fellows even work in a national security-related job upon graduation. The



Department says the benefits it receives in exchange for funding this program are a pool of native-born, doctoral-degreed U.S. researchers pursuing on-going basic and applied projects in areas critical to DOD's needs; working for DOD or other U.S. government agencies or for contractors supporting DOD or government facilities; supporting the U.S. defense industrial base; and inspiring the next generation of U.S. citizens to pursue degrees in fields important to the nation's defense.

As threats to our nation grow and our technological edge over our adversaries shrinks, we need to invest in our nation's next generation of scientists and engineers to keep that edge.⁴² But without an obligation incurred by the fellows, DOD cannot be certain that these fellowships or their resulting research will actually benefit national security. This leaves us to ask: with a shrinking defense budget and a federal deficit of \$18.1 trillion and growing, should DOD be spending \$23 million a year on advanced degrees and research from which it may never see any benefits?⁴³

⁴¹ The NDSEG program makes investments in science, engineering, or other STEM fields of study, with a focus on specific disciplines such as aeronautical and astronautical engineering, computer and computational sciences, and mechanical engineering. In addition to fully paid tuition, fellowship recipients receive an annual stipend of \$102,000. "National Defense Science and Engineering Graduate Fellowship," NDSEG, <https://ndseg.asee.org/>.

⁴² Department of Defense, *Quadrennial Defense Review 2014* (Washington, DC: Department of Defense, March 4, 2014), http://archive.defense.gov/pubs/2014_Quadrennial_Defense_Review.pdf.

⁴³ Congressional Budget Office, *Federal Debt and the Statutory Limit* (Washington, DC: Congressional Budget Office, October 2015), <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/50888-FederalDebtLimit.pdf>.

\$1.3 MILLION TO RESEARCH THE MATING HABITS OF AFRICAN GIANT POUCHED RATS

Bomb-sniffing dogs may be getting some competition from an unlikely animal if a DOD funded study of African giant pouched rats determines how to produce and scale large numbers of the animals that can sniff out mines. In 2014 and 2015, researchers at Cornell University received grants from the Army Research Office (ARO) to investigate the mating habits and determine personality traits of African giant pouched rats through intensive fieldwork, behavioral tests, and genetic profiling.⁴⁴ The research used behavior tests, including a variety of mazes, to classify rats as “hawkish” or “dovish,” among other personality traits.

While one company has had some success with the rats in mine detections, thus far researchers have found that the rats do not perform better than mine-detection dogs. Likewise, the head of the Mines Advisory Group in South and Southeast Asia remarked that he could not “envision hordes of rats wiping out minefields in Cambodia,” adding that “I don’t think they can add a whole lot to what dogs can do.”⁴⁵



And the rats also come with their own set of challenges.⁴⁶ For example, the rats do not work well when it is extremely hot, limiting their demining hours to the morning in warm climates. Furthermore, the grant proposal noted the “extremely expensive” shipping costs, adding that “per diem costs to house these large-sized and demanding animals” presents a “significant cost” and delays in shipping prevented the team from finishing research funded by the first ARO grant it received to study the rats in 2011.⁴⁷

⁴⁴ Alan Poling, Bart Weetjens, Cristophe Cox, Negussie W. Beyene, Harvard Bach, and Andrew Sully, “Using Trained Pouched Rats To Detect Land Mines: Another Victory For Operant Conditioning,” *Journal of Applied Behavior Analysis* 44, no. 2 (Summer 2011): pp. 351-5.

⁴⁵ Denis D. Gray, “Smart Rats Sniffing Out Cambodia’s Vast Mine Fields,” *Associated Press*, February 24, 2016, <http://bigstory.ap.org/article/79766d68bb704febbb1101072f79512d/smart-rats-sniffing-out-cambodias-vast-mine-fields>.

⁴⁶ Alan Poling, Bart Weetjens, Cristophe Cox, Negussie W. Beyene, Harvard Bach, and Andrew Sully, “Teaching Giant African Pouched Rats to Find Landmines: Operant Conditioning With Real Consequences,” *Behavior Analysis in Practice* 3, no. 2 (Fall 2010): pp. 19-25.

⁴⁷ Denis D. Gray, “Smart Rats Sniffing Out Cambodia’s Vast Mine Fields,” *Associated Press*, February 24, 2016, <http://bigstory.ap.org/article/79766d68bb704febbb1101072f79512d/smart-rats-sniffing-out-cambodias-vast-mine-fields>.

While the pursuit of enhanced mine detection is an important goal, it is unacceptable in light of current budget constraints that limited defense resources are being used to conduct genetic sequencing, cross breeding, and behavior analysis on large rodents, especially when they do not demonstrate a substantially greater capability than the dogs we already have.

\$48 MILLION IN POTENTIAL ANNUAL SAVINGS IF DOD WERE USING EXISTING, APPROVED METHODS TO OBTAIN SATELLITE COMMUNICATIONS SERVICES

DOD spent more than \$1 billion in 2011 leasing commercial satellite communications (SATCOM) critical to a variety of defense missions, including unmanned aerial vehicles, intelligence, and voice and data for military personnel. But DOD could save 16 percent—up to \$48 million that year alone—if the way DOD buys SATCOM services were not so fragmented and inefficient.

At the direction of the Senate Armed Services Committee, GAO has been reviewing DOD's strategy for getting SATCOM. Once considered peripheral, SATCOM is now essential to DOD's communications, but GAO found that DOD isn't tracking its spending patterns on SATCOM. The result is that DOD fails to plan appropriately for how it obtains SATCOM, often doing so at the last minute at a higher cost.⁴⁸



Agency-wide acquisition policy requires the military services and DOD agencies to work through the Defense Information Systems Agency (DISA) to obtain commercial SATCOM, which has established vehicles to get the best value and economy of scale from the satellite communications industry.⁴⁹

DOD organizations have some authority to buy SATCOM outside of the DISA process on the spot market, during times of conflict and typically using supplemental funds. Other times DOD organizations just don't use DISA, even when they should, because they think they can get a better price. Unfortunately, according to GAO, using these alternatives costs more: the average cost for going

⁴⁸ Government Accountability Office, *Defense Satellite Communications: DOD Needs Additional Information to Improve Procurements* (GAO-15-459) (Washington, DC: U.S. Government Accountability Office, July 17, 2015), <http://www.gao.gov/assets/680/671484.pdf>.

⁴⁹ Government Accountability Office, *Telecommunications: Competition, Capacity, and Costs in the Fixed Satellite Services Industry* (GAO-11-777) (Washington, DC: U.S. Government Accountability Office, September 7, 2011), <http://www.gao.gov/assets/330/322861.pdf>. DISA has established preferred contracting vehicles with the General Services Administration.

outside the approved channels was 16 percent higher than comparable services leased through DISA.

Without an idea of how and how often demand for SATCOM is filled on the spot market, as well as how often DOD organizations are going outside the process, DOD is missing opportunities to observe sustained increases in demand that it can meet through established mechanisms ahead of time and more cost-effectively.

If DOD had procured the 30 percent of the \$1 billion it spent outside of the DISA process in 2011, at a savings of 16 percent it would have yielded a \$48 million in savings that year alone. Unfortunately, we can't estimate potential waste from 2012 through 2014 because DOD is not tracking its spending on SATCOM, something GAO has urged the Department to do since at least 2004.⁵⁰ What we do know is that DOD's reliance on commercial SATCOM grew by more than 800 percent between 2000 and 2011, and demand has since increased. By not tracking its spending, the Department is limiting its ability to strategically plan for and adjust its approach to obtaining SATCOM in the future. Buying on the spot market when demand for SATCOM is increasing comes at a premium. While supplemental funding allows the military services and DOD agencies the flexibility to obtain commercial SATCOM at their discretion, it also impedes DOD's ability to save money through centralized, multi-year acquisitions, and manage military and commercial SATCOM as a whole.⁵¹

Another part of the problem is that the DOD organization that develops exclusively military SATCOM capabilities does not coordinate its efforts with the organization that is obtaining commercial SATCOM. Since demand for SATCOM to conduct military operations is only going to continue, we need to put the people buying the satellites for military use in the same room with those buying capacity on the spot market, to reconcile SATCOM supply with warfighter requirements. Until DOD implements a strategic approach to buying SATCOM services that harmonizes military and commercial SATCOM, it will continue to needlessly waste millions of dollars every year with its ad hoc approach.

⁵⁰ Government Accountability Office, *Satellite Communications: Strategic Approach Needed for DOD's Procurement of Commercial Satellite Bandwidth* (GAO-04-206) (Washington, DC: U.S. Government Accountability Office, December 10, 2003), <http://www.gao.gov/assets/250/240820.pdf>.

⁵¹ GAO-15-459.

\$1 MILLION ON DOD PERSONNEL MISUSING THEIR GOVERNMENT TRAVEL CARDS GAMBLING AND AT STRIP CLUBS ... SOME OF WHICH TAXPAYERS ACTUALLY PAID FOR

A Navy petty officer spent \$1,758—more than six times his total authorized allowance for meals and expenses—at adult entertainment establishments Dreams Cabaret, Jaguars Gold Club, Tequila Sunrise, and Red Parrot Gentlemen’s Club.⁵² Only after being informed by the DOD IG did the Navy take disciplinary action, including the creative solution of having the petty officer lead a training session for his organization to illustrate his renewed understanding of DOD travel policy.

Unfortunately, this is not an isolated incident—according to the DOD IG, DOD employees repeatedly abused their government travel cards at casinos and strip clubs. More troubling, they got away with it, leaving taxpayers to foot the bill.



In May 2015, the DOD IG reported that DOD personnel charged over 5,000 of these transactions, totaling more than \$1 million in a single year.⁵³ In its response to the DOD IG’s report, DOD management said it was confident that the cardholder—not DOD—was responsible to pay all charges. But the breakdown in DOD’s process to identify misuse was so concerning that the Senate Armed Services Committee asked the DOD IG to take a second look. What the DOD IG’s report found was disturbing.⁵⁴

Any personal use of a government travel card is considered misuse, and the misuse uncovered by the DOD IG should have been readily apparent to approving officials. In a follow up report published this August, the DOD IG showed that the breakdown in DOD’s process to address cardholder misuse occurred at every step in the process: preventing misuse, detecting misuse, ensuring cardholders aren’t reimbursed for their misuse, disciplining cardholders for misuse, monitoring

⁵² DODIG-2015-125 at 10-11

⁵³ DOD Inspector General, *DoD Cardholders Used Their Government Travel Cards for Personal Use at Casinos and Adult Entertainment Establishments*, DODIG-2015-125 (May 19, 2015).

⁵⁴ DOD Inspector General, *DoD Officials Did Not Take Appropriate Action When Notified of Potential Travel Card Misuse at Casinos and Adult Entertainment Establishments*, DODIG-2016-127 (August 30, 2016).

cardholders with known misuse, and restricting use of their card to prevent further misuse. The cases of the five cardholders below illustrate the control failures throughout the process, including coordination between DOD cardholder chains of command and DOD travel management:

Army Lieutenant Colonel – 37 transactions totaling \$7,760⁵⁵

After being confronted about his misuse, the cardholder told DOD travel officials he would tell his commander about his misconduct but did not, and DOD travel officials failed to follow up to confirm that he had done so. The commander's first notification of the cardholder's conduct was when DOD IG met with all officials to follow up on their initial referral about misuse.

Air Force Civilian – 7 transactions totaling \$1,564⁵⁶

The employee traveled 150 miles from his approved travel location to a destination resort in Nevada with five casinos, and after making seven attempts to withdraw about \$4,000, successfully withdrew \$1,500 in cash. A DOD official responsible for oversight of his travel card use at the time talked to the employee but "found nothing improper with the transactions." After DOD IG's referral in 2014, a Human Resource manager concluded the transactions were misuse, but erroneously believed the employee could not be disciplined because of a misinterpretation of a labor agreement's 45-day clock to investigate and discipline, thinking the clock had started with the employee's conduct instead of when management had discovered the conduct. By the time this misunderstanding was cleared up in August 2015, the 45-day window since discovery had actually expired.

Navy Civilian – 274 transactions totaling \$31,732⁵⁷

Despite warnings dating back to 2007, officials did not initially consider some transactions as misuse, and the DOD travel official did not review the cardholder for additional misuse. The cardholder filed and was overpaid \$2,802 in false mileage claims. The cardholder was counseled, his access to classified information revoked, and he was placed on administrative leave before ultimately retiring.

Air Force Lieutenant Colonel – 89 transactions totaling \$14,371⁵⁸

It took the cardholder's commander over a year from DOD IG's referral of misuse transactions to issue a letter of counseling.

⁵⁵ DODIG-2016-127 at 10-11 and 62. Cardholder #25.

⁵⁶ DODIG-2015-125 at 14-16. Also, DODIG-2016-127 at 18-19 and 60. Cardholder #3.

⁵⁷ DODIG-2016-127 at 12-14 and 62. Cardholder #22.

⁵⁸ DODIG-2016-127 at 17-18 and 61. Cardholder #14.

Defense Threat Reduction Agency (DTRA) Civilian – 24 transactions totaling \$9,483⁵⁹

Despite being investigated by DTRA's IG and receiving a reprimand and a security warning, the cardholder misused his card seven more times. The cardholder has been indefinitely suspended and final disciplinary action is pending the outcome of the DTRA IG's second investigation.

Air Force Reserve Lieutenant Colonel/Civilian – 371 transactions totaling \$35,332⁶⁰

The cardholder misused his card at three different commands, was disciplined twice, and as he transitioned from one command to another, his commanders were not notified of the misuse or the discipline. This led one commander to reduce a disciplinary action, stating that it was the cardholder's first misconduct offense of any kind as a mitigating factor in the decision.

Not only did DOD fail to identify the misuse and stop it from occurring, but even after the DOD IG shared its data on misuse with DOD officials, they failed to fully address it. Indeed, after the DOD IG had identified 30 specific cardholders whose misuse was particularly significant, and had referred the misuse transactions to DOD for follow up, initially DOD only agreed that 23 of the 30 cardholders had misused their cards. In this follow-up review, the DOD IG tracked the cardholders' activity since referring them to DOD management, and found that 2 cardholders continued to misuse their card, even after being disciplined.

It's bad enough that DOD's preventive controls weren't effective at stopping this misuse, but DOD officials also actually approved reimbursements for cardholders' transactions at casinos and strip clubs. The DOD IG found that out of its sample of 30 cardholders whose improper activity they had reviewed in depth for the first report, 22 of these cardholders had fraudulently submitted for reimbursement, and DOD had paid them \$8,544.

DOD personnel holding security clearances are particularly vulnerable to being targeted for blackmail, and standards of conduct are higher than other government employees with respect to financial activity. Agencies that sponsor clearances for their employees are supposed to monitor their activity to ensure they are not a national security risk, and report individuals for reevaluation when they engage in activity that could place them at risk—like gambling. Of the sample of cardholders with improper activity, 25 had security clearances, and the DOD IG found that DOD had only referred two of the cardholders for reevaluation of their security clearances.

⁵⁹ DODIG-2016-127 at 20-22 and 62. Cardholder #20.

⁶⁰ DODIG-2016-127 at 24-26 and 61. Cardholder #19.

Until DOD holds personnel at all levels accountable—including management responsible for overseeing the program and approving the transactions for reimbursement—its travel card program and millions of taxpayer dollars will remain vulnerable to abuse and a focus of further Congressional oversight.