# ANALYSIS OF THE FY 2010 DEFENSE BUDGET REQUEST

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# EXECUTIVE SUMMARY

The Obama Administration has requested a total of $668 billion for the Department of Defense (DoD) in the FY 2010 budget. The "base" budget for the Department includes $534 billion in discretionary funding and an additional $4 billion in mandatory funding. The budget also includes, for the first time, full-year funding for the wars in Iraq and Afghanistan—now termed Overseas Contingency Operations (OCO). The cost of the wars is estimated at $130 billion for FY 2010. In real terms, the base DoD budget is an $18 billion increase over last year's budget, while the funding for the wars in Iraq and Afghanistan is a $17 billion decrease from FY 2009.

From FY 2001 to FY 2009 the base defense budget grew at an average real rate of 4.4 percent annually. The FY 2010 budget request slows the real rate of growth to 3.4 percent and projects a future rate of growth in the base budget of just 0.2 percent per year. Total DoD spending grew by 73 percent in real terms from FY 2001 to FY 2009, much of which was due to the cost of the wars in Iraq and Afghanistan. The FY 2010 budget request proposes a 1 percent decrease in total DoD spending, due primarily to reductions in the war-related funding.

From an historical perspective, the Obama Administration's defense budget remains near record levels. The previous peak in defense spending occurred in 1985 under the Reagan Administration. At $538 billion, the FY 2010 base defense budget, not including the added cost of the wars, exceeds the Reagan peak of $517 billion in 2010 dollars. Top-line projections for the base defense budget show that while defense spending will not continue to increase at the same rate as before, the Obama Administration intends to maintain a high level of funding in the coming years. The base defense budget proposed for the administration's first four years (FY 2010 - FY 2013) puts the president on pace to spend more on defense, in real dollars, than any other president has in one term of office since World War II.

## HIGHLIGHTS OF THE ADMINISTRATION'S BUDGET PROPOSAL

- The 2010 budget request moves non-war related items previously funded through supplemental appropriations into the base defense budget. According to the Department, the amount of this transfer totals $13 billion. It includes the cost of increasing the end strength of the Army and Marine Corps, additional UAVs and ISR assets, and additional helicopter crews and support systems. This shift in funding is

one reason the base defense budget is increasing this year and the cost of the wars is decreasing.

- In a break from the previous administration, the Obama Administration has laid out a projection for the cost of the wars in Iraq and Afghanistan over the coming years as part of the budget request. These projections reveal a significant decrease in funding for the wars, falling from $130 billion in FY 2010 to just $50 billion each year thereafter. This is consistent with the administration's stated goal of pulling combat forces out of Iraq in FY 2011, and is somewhat in line with CBO estimates of future war costs. But further escalation of the war in Afghanistan or a change in the situation in Iraq would almost certainly require these estimates to be revised upward.
- In an unusual step, the Department's budget does not include a detailed Future Year Defense Program (FYDP), although a top-line projection for future years is included. The Secretary of Defense has attributed the absence of the FYDP to the ongoing Quadrennial Defense Review (QDR), which will make determinations about future programs before the FY 2011 budget cycle.
- The budget request includes a special section entitled "Terminations, Reductions and Savings" that highlights $17 billion in program cuts or cancellations in the federal budget. Over half of these cuts, $8.8 billion, come from DoD programs—a relatively small portion (1.6 percent) of the defense budget. Moreover, while a number of defense programs were scaled back or terminated, many others were accelerated and received additional funding.
- Personnel costs are one of the fastest growing areas of the defense budget, growing at a real average annual rate of 5.6 percent since 2001. The growth in recent years is due in part to increases in the end strength and the rising costs of healthcare. Healthcare costs comprise $47 billion of the budget request and are projected to continue to increase by 5 to 7 percent annually. Outside of the DoD budget, the cost of veterans' benefits (which includes additional healthcare expenses) is rising at an even higher rate. The administration is requesting $110 billion in funding for veterans, a real increase of 12 percent from FY 2009.
- The budget takes steps toward reform by including war costs as part of the budget request and beginning to rebalance acquisitions to focus more on irregular warfare and near-term threats. However, several issues remain that will need to be addressed in the future. Defense acquisitions are taking longer to procure systems in smaller quantities with lower performance than promised, at a higher price than anticipated. At the same time, military pay, healthcare, retirement, and other benefits are growing faster than the overall defense budget. If allowed to continue, personnel-related costs will begin to crowd out other parts of the budget, specifically procurement and RDT&E, and will hamper the Department's ability to properly equip the force.

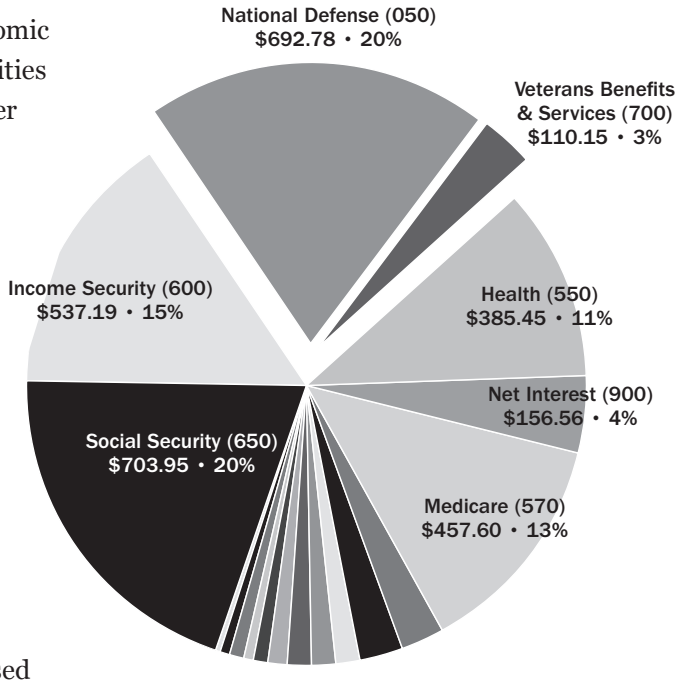
Overview of the Budget Request

# I. OVERVIEW OF THE BUDGET REQUEST

The Obama Administration is requesting a total of $668 billion for the Department of Defense (DoD) in the FY 2010 budget. The base budget for the Department includes $534 billion in discretionary funding and $4 billion in mandatory funding. The budget also includes, for the first time, full-year funding for Overseas Contingency Operations (OCO), principally the wars in Afghanistan and Iraq. The cost of the wars is projected to be $130 billion for FY 2010.

Total defense spending, however, includes more than is captured in the DoD budget alone. The budget request also includes an additional $17.7 billion for defense-related atomic energy programs, $7.4 billion for defense-related activities in other agencies, and $110 billion for veterans. Together these expenses total $803 billion, or 23 percent of the total federal budget, including both mandatory and discretionary funding. (Figure 1)

FIGURE 1. TOTAL FY 2010 BUDGET REQUEST(IN BILLIONS)




Because this is a transition year between administrations, the budget release has not conformed to the usual schedule. The Obama Administration unveiled the top- line numbers for the budget request on February 26, 2009, which only provided the total level of funding for the DoD. On April 6, 2009 Secretary Gates announced a number of program decisions in advance of the detailed budget release. The Office of Management and Budget (OMB) released the Budget Appendix on May 7, 2009, and over the following week both OMB and DoD released additional tables, exhibits, and justification books that detail the defense budget in its entirety.

## BASE DEFENSE BUDGET

The base defense budget request of $538 billion covers the peacetime costs of the Department and includes both mandatory and discretionary expenses. The mandatory expenses, which total just over $4 billion, are primarily accrual payments to the

**While much attention has been given to the high-profile weapons systems that are scaled back or terminated in the budget, many others are accelerated and receive additional funding.**

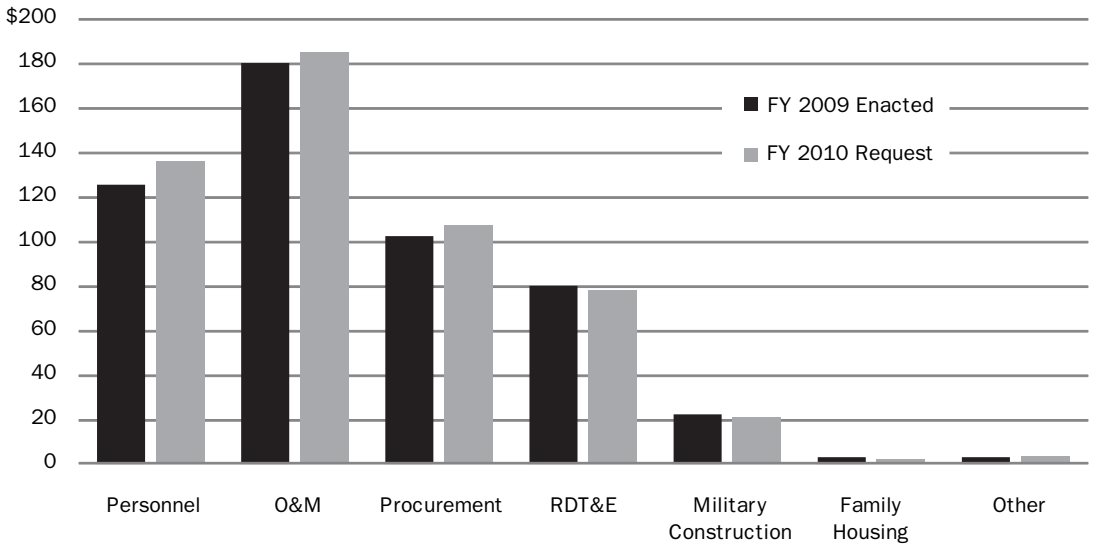
Military Retirement Fund. In real terms, the base budget is a 3.4 percent increase over the FY 2009 budget.[1]

The proposed base budget increases the level of funding for each of the Services, with the Navy receiving the greatest increase. The net increase for the Navy is $7.4 billion (5.0 percent) in real terms. It includes over $4 billion for procurement of additional Navy aircraft and a net increase of $1 billion for Navy shipbuilding and conversion. Defense-wide funding also increases in real terms by $4.4 billion, despite cuts to some high-profile missile defense programs funded through this component of the budget.

While much attention has been given to the high-profile weapons systems that are scaled back or terminated in the budget, many others are accelerated and receive additional funding. Overall, procurement funding in the base budget is set to rise in real terms by $4.7 billion (Figure 2). Personnel and Operations and Maintenance accounts also increase in this budget, due in part to the movement of items that had previously been funded through supplemental appropriations, such as the cost of increasing the end strength of the Army and Marine Corps, into the base budget. The request decreases funding for Research, Development, Test, and Evaluation (RDT&E), Military Construction, and Family Housing.

[1] All real values shown are in FY 2010 dollars and are calculated using the GDP deflators provided in the Office of Management and Budget's *FY 2010 Historical Tables, Table 10.1*. Using DoD's own deflators would show a more modest growth in defense spending because, relative to the GDP deflator, DoD's deflators tend to understate growth in personnel costs.

FIGURE 2. BASE DISCRETIONARY BUDGET AUTHORITY BY TITLE
(IN BILLIONS OF FY 2010 DOLLARS)



## DIFFERENCES FROM PREVIOUS YEARS

Secretary Gates termed the FY 2010 defense budget a "reform budget," and with the release of the detailed budget request, the Department revealed what shape that reform will take. This budget is a departure from the previous administration's budgets in several ways. First, it moves items not directly related to the wars in Iraq and Afghanistan out of the war funding and into the base budget. According to Secretary Gates, the amount of this transfer totals $13 billion[2], which is one reason the base defense budget is increasing this year and the cost of the wars is decreasing. Examples of costs that are being moved into the base budget are:

- Increasing the end strength of the Army and Marine Corps above their pre-war levels, including personnel, equipment, and infrastructure costs[3]
- Procuring additional UAVs and ISR assets; and
- Funding for additional helicopter aircrews and other helicopter support

The FY2010 budget request includes funding for the wars in Iraq and Afghanistan as part of the budget. In previous years, the Bush Administration declined to provide projections for the cost of ongoing military operations in conjunction with the release of the budget, instead relying on supplemental appropriations that were usually requested separately. While supplemental appropriations have been used in the past to fund conflicts, it is unprecedented to use them for a conflict of this duration.

Funding the war through supplemental appropriations meant that these spending bills were not subject to the same congressional budget oversight and enforcement mechanisms as other appropriation bills. The supplementals did not provide long-term plans for future funding and were not part of the Future Year Defense Program. Including the full cost of the wars in the annual budget, as well as moving non-war related items into the base budget, has the effect of giving these programs a "seat at the table" in the annual budget process within DoD and subjects them to greater scrutiny by Congress.

## TERMINATIONS, REDUCTIONS, AND SAVINGS

The FY 2010 budget request includes a separate document entitled *Terminations, Reductions, and Savings* that has not been included in previous budget requests. This document summarizes programs that are reduced or terminated in the budget in an effort to reduce spending. The savings total some $17 billion in FY 2010 from 121 different programs across the federal budget. Sixteen of these programs and $8.8 billion of the savings come from the defense budget (Table 1). The savings are quite small in

[2] Robert Gates, *Defense Budget Recommendation Statement* (Arlington, VA: n/p, April 6, 2009).

[3] Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11* (Washington DC: CRS, October 15, 2008), p. 29.

relation to the total DoD base budget (less than 2 percent) and are more than offset by increases in other areas of defense spending.

The real value of these savings, however, depends to a great extent on the methodology used for calculating the savings. The administration defines savings as the difference between what was being spent on a program in FY 2009 and what is proposed for FY 2010. While the method is clear and consistently applied, it does not capture other important factors that can significantly affect the dollar value of the proposed changes.

First, it does not take into account planned variations in program funding from year to year. Most acquisition programs have planned increases or decreases in funding over time, as work ramps up or ramps down according to where the program is in its lifecycle. For example, termination of the Air Force's Combat Search and Rescue (CSAR-X) program is counted as $144 million in savings for FY 2010 since the budget was reduced from $233 million in FY 2009 to $89 million in FY 2010. But the program was in the process of ramping up development activities, and the FYDP from last year's budget shows that the plan was to spend $572 million in FY 2010. Thus, cancelling the program actually saves $483 million in FY 2010 over what would have been spent had the program continued as planned.[4]

Second, the savings do not fully take into account cost avoidance. For example, the Air Force did not budget any funding for additional C-17 aircraft in FY 2009. Congress added funds to continue buying the C-17 in a supplemental appropriation, keeping the production line open. When calculating the savings, the Obama Administration bases the calculation off of the Air Force's plan to cease funding the program. By this calculus, there are no savings from cancelling this program. In fact, the cancellation is counted as costing money, since the FY 2010 budget adds $91 million for the shutdown of the production facility. It does not take into account the cost avoidance of not buying more C-17s, which if procured at the rate of fifteen per year (as they had been in the past) would mean nearly $3 billion in savings for FY 2010. It is a matter of judgment as to whether or not this type of cost avoidance should be included, but since the administration included the C-17 as an example of savings, it certainly implies that the cost avoidance from not buying unplanned C-17s should be considered.

Finally, the savings do not account for the long-term funding implications and increases in other programs that are necessary to compensate for the reductions proposed. For example, the Transformational Communications Satellite (TSAT) program was terminated for a savings of $768 million in FY 2010. The total projected cost of the program was $20 billion. However, as a result of ending this program, the Department now needs to buy two more Advanced Extremely High Frequency (AEHF) communication satellites. As a result, $3 to $5 billion will be added to the AEHF program over the next several years to procure the additional satellites.[5]

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[4] Data obtained from Department of the Air Force Fiscal Year 2009 Budget Estimates: Research, Development, Test and Evaluation, Descriptive Summaries, Volume II. (February 2008) p. 778.

[5] Author's estimate of the cost based on the cost of previous AEHF satellites. The exact cost will not be known until the government reaches an agreement with the prime contractor, Lockheed Martin.

The table below provides a summary of each of the terminations and reductions proposed by the administration and the savings (or added costs) they assign to each.

TABLE 1. SUMMARY OF TERMINATIONS, REDUCTIONS, AND SAVINGS FROM FY 2010 BUDGET REQUEST

| **Program** | **Decision** | **Savings in FY 2010** (in millions of dollars, negative numbers indicate savings) |
|---|---|---|
| F-22 Raptor | End production at 187 aircraft. | -$2907 |
| Contracted Service Support | Reduce the number of support services contractors from 39 percent of the defense workforce to 26 percent, and replace selected contractors with 33,600 new civil service positions. | -$900 |
| Recruiting and Retention Adjustments to Maintain End strength | Reduce enlistment and reenlistment bonuses, advertising, and the number of recruiters in light of recent success in meeting and exceeding end strength levels. | -$793 |
| Transformational Satellite Communications System (TSAT) | Terminate the TSAT program and instead buy two additional AEHF communications satellites. | -$768 |
| VH-71 Presidential Helicopter | Terminate the existing program, develop options for a new Presidential Helicopter program to begin in FY 2011, and fund service life extensions for the current fleet. | -$750 |
| Aircraft Carrier Replacement Program | Begin procuring replacement aircraft carriers at a rate of one every five years rather than every four years, which will eventually reduce the fleet to a total of ten carriers in 2040. | -$727 |
| Future Combat System (FCS) Manned Ground Vehicles | Cancel the manned vehicle portion of FCS and reexamine requirements for the next generation of ground combat vehicles. | -$633 |
| Ground Based Midcourse Defense (GMD) | Deploy only 30 of the 44 Ground Based Interceptors procured, and instead focus on testing resolving technical issues before deciding whether to deploy the remaining 14 missiles. | -$524 |
| Joint Strike Fighter Alternative Engine | Terminate the alternative engine program. | -$465 |
| Multiple Kill Vehicle (MKV) | Terminate the MKV program and invest instead on more near-term missile defense programs and theater missile defense. | -$283 |
| Airborne Laser (ABL) | Cancel plans to procure a second test aircraft and instead focus on resolving issues with the existing test aircraft. | -$214 |
| Combat Search and Rescue Helicopter (CSAR-X) | Terminate program and review requirements to see if a multipurpose aircraft could carry out the same mission. | -$144 |
| Next Generation Bomber | Do not pursue technology efforts aimed at producing a Next Generation Bomber and instead rely on upgrades to the 173 bombers already in the Air Force inventory. | 0 |
| CG(X) Next Generation Cruiser | Delay the CG(X) beyond FY 2015 and use the added time to reexamine the hull and propulsion systems needed for this ship. | $8 |
| C-17 Globemaster | End production of aircraft after the 205 already ordered and fund the orderly shutdown of the production line. | $91 |
| LPD-17 and Mobile Landing Platform (MLP) Transport Ships | Delay building the LPD-17 and MLP ships by one year and reassess requirements for amphibious lift. | $247 |

## FUNDING FOR THE WARS

Total funding approved since 2001 for the wars in Iraq and Afghanistan and related operations around the world, now referred to as Overseas Contingency Operations (OCO), is $864 billion in then-year dollars.[6] This total does not include the $79.9 billion recently appropriated for the remainder of FY 2009. The war in Iraq alone, which represents approximately 80 percent of the total cost, has already exceeded the costs of the Vietnam War and each of the other wars in American history with the exception of World War II.[7]

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The FY 2010 budget request includes funding for Overseas Contingency Operations. Over the past seven years, the wars in Iraq and Afghanistan have been funded primarily through supplemental appropriations. While it is not unusual to fund military operations through supplemental appropriations, it is unusual to continue using supplemental appropriations for a conflict of this duration. For comparison, the Vietnam conflict used supplemental appropriations exclusively its first year, FY 1965. From FY 1966 to FY 1969 the conflict relied on a combination of supplemental and regular appropriations. All funding was moved to regular appropriations for FY 1970 and beyond.[8]

For the first time, the FY 2010 budget request includes projections for future costs of the wars. These projections anticipate the cost will drop from $130 billion in FY 2010, to just $50 billion per year for FY 2011 and beyond. Thus over the next ten years, running FY 2010 to FY 2019, war costs are estimated at $580 billion, which is consistent with Congressional Budget Office (CBO) estimates that the cost of the wars over the ten-year period, running FY 2009 to FY 2018, would range from $440 to $865 billion.[9] However, further escalation of the war in Afghanistan or a change in the situation in Iraq would almost certainly require the administration's projections to be revised upward.

## OTHER DEFENSE-RELATED FUNDING

The administration's FY 2010 request provides $17.7 billion for atomic energy defense activities, primarily through the Department of Energy. It includes $6.4 billion for weapons activities, $2.1 billion for non-proliferation programs, and $1.0 billion to support naval nuclear reactor programs. It also provides $6.5 billion for defense environmental restoration, waste management and other activities, down sharply from the $12.2 billion provided in FY 2009 but in line with funding from previous years.

The budget request includes an addition $7.4 billion for defense-related activities in other agencies. More than half of this amount, $4.5 billion, is directed for de-

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6 Belasco, p. 8.

7 Stephen Daggett, *Costs of Major U.S. Wars* (Washington DC: CRS, July 24, 2008) pp. 1–2.

8 Stephen Daggett, *Military Operations: Precedents for Funding Contingency Operations in Regular or in Supplemental Appropriations Bills* (Washington DC: CRS, June 13, 2006).

9 See footnotes (a) and (c) in Table 1-8 of CBO, *The Budget and Economic Outlook: An Update* (Washington DC: CBO, September 2008) p. 21.

fense activities in the Federal Bureau of Investigation. It also provides $1.6 billion for the Department of Homeland Security, specifically to the US Coast Guard, Federal Emergency Management Agency, and the National Protection and Programs Directorate.

A total of $110 billion is included for veterans and veterans' benefits, primarily through the Department of Veterans Affairs. This figure represents a 12 percent real increase over FY 2009 and includes $53 billion in discretionary spending and $57 billion in mandatory spending. The administration proposes to expand eligibility for veterans' health care to over 500,000 people and more than double spending on veterans' education, training, and rehabilitation. Spending on veterans increased, on average, at a real annual rate of 6.7 percent from FY 2001 to FY 2009. After the sharp increase this year, the administration projects only a 2.5 percent real increase annually through FY 2014. In comparison, funding for veterans in the FY 2010 request exceeds funding in the base defense budget for military pay and allowances ($105 billion), RDT&E ($79 billion), and procurement ($107 billion).

## HISTORICAL PERSPECTIVES

The base defense budget request for FY 2010, adjusted for inflation, is at the highest dollar amount since World War II, and is higher than total defense spending at any point in the Vietnam or Korean Wars.[10] This budget continues a stretch of nearly uninterrupted increases in the defense budget dating back to FY 1998.[11] The previous peak in defense spending occurred in 1985 at an inflation-adjusted level of $517 billion, following a six-year buildup that began in 1979. (Figure 3)

Total DoD spending, including the cost of the wars in Iraq and Afghanistan, is beginning to come down from its peak in FY 2008 as forces in Iraq begin to draw down from the surge. But the future of the conflicts in Iraq and Afghanistan is far from certain. Any deterioration of the conditions in these countries or the emergence of new threats or instabilities in the region that requires more US involvement could drive the cost of the wars back up to (and possibly beyond) previous levels.

President Obama's plan for the base defense budget over the coming years puts him on track to spend more on defense in a single four-year term than any other president since World War II.[12] While defense spending is at record levels and will likely remain there, the rate of growth is slowing. The average annual increase in the base budget since the buildup began in 1998 has been 4.1 percent in real terms. The budget pro-

**President Obama's plan for the base defense budget over the coming years puts him on track to spend more on defense in a single four-year term than any other president since World War II.**

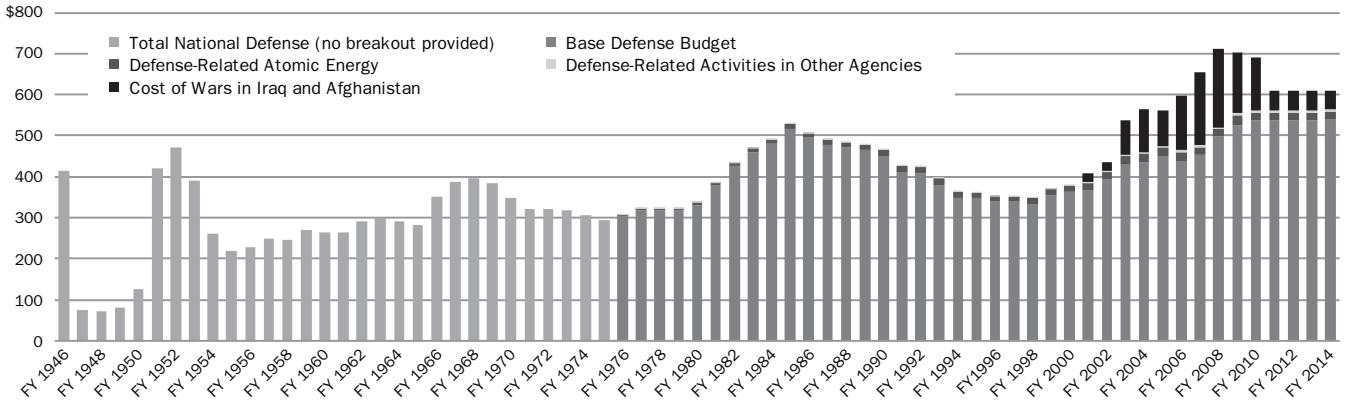
[10] As a share of the overall US economy (i.e. percent of GDP), the defense budget was higher during the Korean and Vietnam Wars than it is today. Defense spending consumes a smaller share of the GDP today because even though the defense budget has grown faster than inflation the overall economy has grown even faster than the defense budget.

[11] The exception being the FY 2006 base budget, which was a slight decrease in real terms from the year before.

[12] The FY 2010 budget proposes $2.15 trillion in base defense spending from FY 2010-13. In comparison, the next highest level of base defense spending for a four-year term since FY 1946 is President Bush's second term ($1.92 trillion from FY 2006-09), followed by President Reagan's second term ($1.91 trillion from FY 1986-89). All values are in FY 2010 dollars.

jections provided by the administration keep base defense spending at a plateau with only minimal increases above the rate of inflation. Within the defense budget, military healthcare and personnel-related costs are projected to continue to grow faster than inflation, which means these costs will begin to consume a larger share of the budget than procurement, RDT&E, and other types of spending.

FIGURE 3. GROWTH IN NATIONAL DEFENSE SPENDING
(IN BILLIONS OF FY 2010 DOLLARS)



# II. DETAILS OF THE BUDGET REQUEST

The following sections provide a brief analysis of how major funding categories and programs fare under the administration's FY 2010 budget request.

## OPERATIONS AND MAINTENANCE

The O&M budget covers the costs of purchasing fuel, spare parts, and many other items associated with carrying out training activities, as well as real-world operations in Iraq, Afghanistan and elsewhere. As such, the readiness of the US military to fight effectively on short notice is largely dependent on the provision of adequate funding in this account. In addition, the O&M budget covers the cost of many programs less immediately related to near-term readiness, such as military health care, base operations and other support, or "infrastructure," activities. These costs include the salaries of most civilian DoD personnel, who perform many of DoD's infrastructure functions.

The FY 2010 request for DoD's base budget provides some $186 billion for O&M. This level is very high by historical standards, and should be adequate to cover normal peacetime O&M funding requirements. The administration's request works out to about $133,000 per active-duty troop. This is twice as much in real terms as DoD provided per troop in FY 1990, the year the United States began sending forces to the Persian Gulf in preparation for Operation Desert Storm, and one third more than in FY 2000, just prior to the invasion of Afghanistan.

The budget request also provides an additional $91 billion in O&M funding for Overseas Contingency Operations (OCO). This includes $7.5 billion for the Afghanistan Security Forces Fund and $700 million for the Pakistan Counterinsurgency Capability Fund. It does not include any money for the Iraq Security Forces Fund, which received $3 billion in FY 2008 and $1 billion in FY 2009 before being zeroed out in this budget. The remainder of the funds are divided among the Army ($52 billion), Air Force ($10 billion), Navy ($6 billion), Marine Corps ($4 billion), Guard and Reserve ($1 billion), and defense-wide and other activities ($9 billion).

The high level of total O&M funding in the budget request is due in no small part to the increased operational tempo (OPTEMPO). Although some elements of the Air Force and Navy have been stressed substantially over the past few years—such as the Air Force's tanker and transport fleets—overall, these two Services appear to be operating relatively close to their traditional peacetime OPTEMEPO levels (measured, for example, in terms of aircraft flying hours and ship steaming days). By comparison, Army and Marine Corps units, which account for the vast majority of the forces deployed in

and around Iraq and Afghanistan and represent the bulk of the US military's counter-insurgency capabilities, are currently operating under far greater stress. For example, Army combat vehicles in Iraq and Afghanistan are reportedly being operated at five times their normal, peacetime rate.[13]

Notwithstanding the high tempo at which US forces are operating in Iraq and Afghanistan, and the resulting wear and tear on equipment, US Army and the Marine Corps units deployed in those countries appear to remain highly effective. It also appears that Congress has, in recent years, generally been providing funding sufficient to cover the cost of these operations, including required equipment maintenance and repair activities. The FY 2010 OCO budget request includes $17.6 billion for replenishment, replacement, and repair, which is above the military's estimate of $15 billion annually.[14] Yet the material readiness of units is more troubling than might otherwise be assumed based simply on an analysis of funding requirements for reset. The readiness rates of deployed units seems to be kept consistently high because the Army has taken equipment from non-deployed units in order to make deploying units fully equipped. As a result, some non-deployed Army brigades are not functionally available to respond to additional contingencies that may arise unexpectedly.[15]

Another major component of the O&M budget is the civilian military workforce. Legislation enacted in 2003 gave DoD authority to reform and reorganize the way it manages its civilian workforce. The changes include: reducing the time required to hire new personnel; replacing the General Schedule (GS) system for determining pay levels with one that gives managers greater discretion to tie pay to performance; and making it easier to fire civilian workers. The new system, known as the National Security Personnel System (NSPS) is intended to link pay more directly to performance. Current enrollment in the new system is around 200,000 for DoD.[16]

The future of the NSPS remains uncertain. DoD's proposals for implementing the NSPS have been challenged in court by government employee unions. In March 2009, the Obama Administration announced that it was initiating a review of NSPS and would temporarily suspend converting any additional positions from the GS system to NSPS. In May, Deputy Secretary of Defense William Lynn and Director of the Office of Personnel Management John Berry created a task group to "deliver recommendations aimed at helping the Department determine (1) if the underlying design principles and methodology for implementation are reflected in the program objectives; (2) whether

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[13] Frances Lussier, *Replacing and Repairing Equipment Used in Iraq and Afghanistan: The Army's Reset Program* (Washington, DC: CBO, September 2007), p. 5.

[14] In 2006–07, the Army and the Marine Corps (the two Services most heavily involved in military operations) estimated that they would require about $15 billion annually to cover war-related equipment replacement and repair costs, plus comparable levels of funding for at least two years after hostilities had ended. DoD overall was provided about $19 billion and $36 billion for reconstitution (i.e., "reset") in FY 2006 and FY 2007 respectively.

[15] Sharon L. Pickup, *Military Readiness: Impact of Current Operations and Actions Needed to Rebuild Readiness of U.S. Ground Forces* (Washington DC: GAO, February 14, 2008), p. 5.

[16] Wendy Ginsberg, *Pay-for-Performance: The National Security Personnel System* (Washington DC: CRS, September 17, 2008).

the program objectives are being met; and (3) whether NSPS is operating in a fair, transparent, and effective manner."[17]

If O&M costs grow faster than projected but the overall DoD budget remains at its current plateau, O&M costs will begin to crowd out Procurement, RDT&E, and other areas of the budget. During the Clinton Administration, O&M cost growth above projections was a key factor in delaying projected increases in the procurement accounts. For much of that period, the Clinton Administration submitted budgets which projected significant increases in procurement funding two or more years down the road. But each year, O&M costs proved to be higher than anticipated, forcing the administration to divert funding to the O&M accounts and push back the projected upturn in procurement funding. In more recent years, projected increases in procurement funding have been slowed by a combination of continued O&M cost growth, and high rates of growth in military personnel costs and RDT&E funding requirements. Some of the major sources of cost growth in O&M accounts are:

- MILITARY HEALTH CARE. The FY 2010 budget request includes a total of $47 billion in health care costs, $28 billion of which is funded through the Defense Health Program line in O&M. The rising cost of health care is a problem that extends beyond DoD to the rest of the federal budget. Health care costs in general are projected to grow well above the rate of inflation over the next decade, and DoD is projecting a 5-7 percent increase annually. The increase in DoD health care costs is driven by more troops and their families electing to use TRICARE, expanded benefits enacted by Congress (such as TRICARE for Reservists), and an unwillingness on the part of Congress and the Administration to raise TRICARE fees. At the projected rate of growth, health care costs will nearly double every ten years.

**At the projected rate of growth, health care costs will nearly double every ten years.**

- EQUIPMENT MAINTENANCE AND REPAIR. Through most of the 1990s, the age of the Services' weapons inventory increased only modestly, despite the fact that relatively few weapons were purchased during the decade. This is because the Services bought large quantities of new weapon systems in the 1980s, and then in the 1990s cut force structure by about one third, with the oldest equipment generally being retired first. However, the buildup of the 1980s is receding further into the past, and most of the planned force structure cuts were completed by the middle of the 1990s. As a result, the average age of most major weapon systems is projected to increase substantially over the next decade. For example, the average age of aircraft in the Air Force inventory is twenty-four years and is projected to climb to twenty-seven years by 2020.[18] Making matters worse, as Secretary Gates has noted, DoD modernization initiatives have been plagued by the piling on of "exquisite" requirements, which has driven up

[17] Quoted from DoD News Release, DoD, *OPM Announce Defense Business Board NSPS Review*, (Arlington VA: DoD, May 15, 2009).

[18] Norton A. Schwartz, *Answers to Advance Questions from Senate Armed Services Committee* (Washington DC: US Senate, July 22, 2008).

costs and stretched out procurement schedules.[19] As a result, smaller quantities of equipment are being procured, and a bow wave[20] of equipment needs is being pushed out year after year beyond the Future Years Defense Program. The sharp increase in defense spending since 2001 has not reversed this trend, and the increased usage rates of equipment in the harsh environments of Iraq and Afghanistan has only exacerbated the problem.

- FACILITIES MAINTENANCE AND REPAIR. The 2005 Base Realignment and Closure (BRAC) process resulted in the Department's closure of twenty-two major bases (representing about 7 percent of its basing network).[21]Over the twenty-year period spanning FY 2005 to FY 2025, these closures are projected to yield a net savings of $15.3 billion, which is down substantially from the initial estimate of $40.1 billion by the BRAC commission.[22] In the near term, however, these closures continue to cost more money than they save.[23] Moreover, it seems likely that, even with these base closures, DoD will need to substantially increase its funding for facilities upkeep and construction.[24] This is because DoD appears to have spent too little for too long on maintaining, repairing and constructing the infrastructure associated with its military bases, housing and other facilities.

## MILITARY PERSONNEL

The effectiveness of the US military depends critically on its ability to attract and retain quality military personnel. As demonstrated by its performance in recent conflicts, the quality of the US military today is very high. However, the Army encountered some recruiting difficulties in recent years, and standards for incoming Army recruits fell as a result.[25] However, the current economic climate and the effectiveness of enlistment and re-enlistment bonuses has enabled the Army to mitigate this problem. This is im-

[19] Robert Gates, *Defense Budget Recommendation Statement* (Arlington, VA: n/p, April 6, 2009).

[20] The bow wave analogy refers to the bow wave a ship produces ahead of it in the water. Just as a ship pushes a bow wave out ahead of it as it travels, sharp increases in spending keep getting pushed out into the future with each successive budget.

[21] Under the BRAC process, the president appointed an independent commission that recommends—based on advice from the Services, as well as its own analysis—the closure of certain bases. The president subsequently approved the commission's recommendations. Since Congress did not—within forty-five days of the president's approval—pass a joint resolution rejecting the proposed closures, the recommendations then became law.

[22] Values shown are converted to FY 2010 dollars. The current estimate of savings is based on: GAO, *Military Base Realignments and Closures* (Washington DC: GAO, January 2009) p. 5.

[23] The up-front costs associated with closing military bases include, for example, environmental cleanup costs and the cost of transferring certain facilities and capabilities that DoD still requires from bases slated for closure to other bases.

[24] Funding for maintaining and repairing military facilities is found in the O&M budget, as well as the Military Construction and Family Housing budgets, while construction funding is provided through the latter two accounts.

[25] For a discussion of the decline in the quality of Army recruits, see CBO, *Recruiting, Retention and Future Force Levels of Military Personnel* (Washington DC: CBO, October 2006) pp. 6–7.

portant, as maintaining a high-quality, experienced force is likely to remain a central goal of US defense planning.[26]

The FY 2010 base budget request proposes $136 billion in Military Personnel expenses, a 7.8 percent increase in real terms over last year's budget. It includes over $105 billion in pay and allowances and $5 billion in subsistence for active-duty troops, $22 billion for Guard and Reserve personnel, $4 billion for permanent change of station (PCS) moves, and nearly $1 billion in other personnel-related expenses. An additional $13.6 billion is requested in Military Personnel for Overseas Contingency Operations, of which 75 percent is directed to the Army.

The increase in military personnel expenses in the base budget is due to several factors. First, the FY 2010 budget request includes full funding for the cost of increasing the end strength of the force by 92,000 troops. In the past, this had been covered in supplemental appropriations, but the Obama Administration has moved it into the base budget for FY 2010 and beyond. Second, it increases basic military pay by 2.9 percent across the board, which is higher than inflation and a larger wage increase than the average American worker will likely see in 2010. It also increases the tax-free housing and subsistence allowances, cash allowances that compensate military personnel for housing costs and daily meals, by 6.0 percent and 5.0 percent respectively. Lastly, it includes a 4.7 percent real increase in healthcare-related expenses funded through this title.

Compensation for military personnel has increased substantially since the late 1990s. These increases are due to a variety of changes instituted in the last two years of the Clinton Administration, or initiated, reinforced, or expanded under the Bush Administration. Military compensation has grown faster than real wages in the overall economy, and significantly faster than inflation. Much of the increase is due to improvements in non-cash benefits, particularly deferred benefits. Improvements in retiree benefits (e.g., the introduction of the Tricare For Life program and increases in pension payments) accounts for about three quarters of the increase in non-cash benefits between FY 1999 and FY 2005.

The increase in end strength that is now nearing completion was driven mostly by the stress the wars in Iraq and Afghanistan placed on soldiers and marines. The extended nature of these conflicts and the number of troops required made repeated deployments commonplace for many. The increase in end strength should allow DoD to end the use of its Stop Loss[27] actions and will reduce deployment schedules to one year in theater for every two years at home. The cost of increasing the end strength, once completed, is projected to cost $14 billion per year.[28] Once the conflicts in Iraq and Afghanistan subside and the additional troops are not needed to support deployments, the Army

[26] For a discussion of military compensation issues, see Steven M. Kosiak, *Military Compensation: Requirements, Options and Trends* (Washington, DC: CSBA, February 2005).

[27] "Stop Loss" refers to DoD's ability to prevent military members from leaving or retiring once their contractually agreed-to period of service has been completed.

[28] CBO, *Estimated Cost of the Administration's Proposal to Increase the Army's and Marine Corps's Personnel Levels*, (Washington DC: CBO, April 16, 2007) p. 6.

and Marine Corps could decide to either maintain the higher end strength or reduce the end strength and use the savings to fund modernization efforts or other priorities.

## FORCE STRUCTURE

In the 2001 QDR, the Bush Administration decided to maintain essentially the same force structure (e.g., numbers of Army divisions, Navy carrier strike groups and Air Force fighter wings) adopted by the Clinton Administration. However, over the past several years a number of significant changes affecting both the structure and size of the US military have been initiated.

In 2004, the Bush Administration announced plans to restructure the Army. Prior to this initiative, the Army's active-duty forces were organized around ten divisions, each of which consisted of three combat brigades, plus three separate brigades and regiments—for a total of 33 combat brigades. Under the Army's new plan, a fourth brigade was to be created out of each division, increasing the total number of combat brigades to 42. These Brigade Combat Teams (BCTs) were also to be manned and equipped so that they could operate more independently. The extra troops needed for these BCTs were to be provided by shifting personnel from missions and functions for which the Army currently has excess capability (e.g., field artillery and air defense) and by making other changes, rather than by increasing Army end strength. Under the Army's plan, the Army National Guard was to be similarly reorganized into 28 modular brigades.

The Army claimed that this restructuring would increase by 46 percent the readily available combat power it can deploy to military operations,[29] and thus substantially improve its ability to sustain large-scale military operations, such as those in Iraq. But others have raised questions about whether, or by how much, the Army's "modularity" plans will actually improve its ability to sustain such operations.[30] DoD has estimated that this restructuring of the Army will cost some $48 billion to implement over the FY 2005-2011 period, with much of this cost stemming from the need to buy equipment for the additional brigades. However, this estimate may significantly understate the cost of the effort.[31]

In 2007 the administration announced plans to increase the size of the Army and Marine Corps by 65,000 and 27,000 active duty troops, respectively.[32] This planned increase in the size of the Army and Marine Corps added about $100 billion to the

[29] *2006 QDR*, p. 43.

[30] CBO has concluded, for example, that although the number of brigades will be substantially increased under the initiative, the Army's combat forces (measured in terms of maneuver units, such as armor and infantry companies) would be increased by only 5-19 percent, at most—and possibly not at all. Adam Talaber, *Options for Restructuring the Army* (Washington, DC: CBO, May 2005), p. 8.

[31] Sharon Pickup and Janet St. Laurent, "Force Structure: Preliminary Observations on Army Plans to Implement and Fund Modular Forces," Testimony before the Subcommittee on Tactical Air and Land Forces, Committee on Armed Services, US House of Representatives, March 16, 2005, p. 2.

[32] Under the Army's new plan, the end strength of the Army National Guard and Reserve would also be increased by a total of about 9,200 troops.

cost of DoD's plans over the next six years.[33] The expansion was intended to allow the Department to increase the number of BCTs in the active Army from 42 to 48, and expand the Marine Corps from two and a half to three active Marine Expeditionary Forces (MEFs). In April 2009, Secretary Gates announced that the Army will instead be organized into 45 active-duty BCTs while maintaining the increased end strength to ensure the BCTs are fully manned and ready to deploy.[34]

In contrast, the end strength of the Navy and the Air Force has declined over the past several years. The Navy has gone from 373,000 sailors in FY 2000 to 330,000 in FY 2009 (a 12 percent decrease), and the Air Force has been reduced from 356,000 airmen to 333,000 (a six percent decrease) over the same period. Additional cuts in the end strength for both Services were planned, but the new administration has decided to halt any further reductions. The Navy and the Air Force had hoped to use savings in personnel and O&M costs from cutting their end strength to fund modernization plans. Viewed from a long-term perspective, DoD's past modernization plans have often been financed in part by cuts in the size of the military. The result has been that although the US military has become smaller over time, it has nevertheless become progressively more capable. The new weapon systems included in current Navy and Air Force modernization plans typically cost twice as much, or more, than the systems they are replacing. They are also more capable, so in many instances it is not necessary to replace existing weapon systems on a one-for-one basis. In other cases, it may be possible to maintain, or even expand, the Services' force structure while cutting personnel levels by shifting to different types of weapon systems.[35]

In theory, the same logic that has driven the Navy and Air Force to look for ways to substitute capital (e.g., automated or robotic capabilities such as satellites, unmanned combat aerial vehicles; automated damage control systems; etc.) for people, should also apply in the case of ground forces. However, counterinsurgency and stability operations, as they have been conducted in Iraq and Afghanistan, tend to be labor-intensive. Thus, to the extent that the ability to carry out these types of large-scale operations remains the focus of Army and Marine Corps plans, force structure discussions and debates are likely to focus on whether, or how much, to expand the size of these Services—with end-strength cuts "off the table." In the case of the Navy and Air Force, significant additional tradeoffs of this kind may still be possible in the near term, although their end strength has already been cut substantially over the past several years.

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[33] CBO, *Estimated Cost of the Administration's Proposal to Increase the Army's and Marine Corps's Personnel Levels*, (Washington DC: CBO, April 16, 2007) p. 1.

[34] Robert Gates, *Defense Budget Recommendation Statement* (Arlington, VA: n/p, April 6, 2009).

[35] For example, it might be possible to maintain or even expand the Navy's force structure, measured in numbers of ships and submarines, while simultaneously reducing end strength, if the Service were to shift to a fleet composed largely of smaller and/or more automated (i.e., less labor-intensive) ships, such as the Littoral Combat Ship (LCS).

## WEAPON SYSTEMS

DoD weapon systems are funded through the research, development, test, and evaluation (RDT&E) and procurement funding lines of the budget. RDT&E funding is generally used to pay for basic and applied research, technology and component development, and system development. Procurement funding generally supports the purchase of weapon systems that have already been developed and are in production. In many cases, however, the distinctions between these two types of funding are blurred. Some RDT&E funding is used to procure early production articles for testing purposes that are in fact fully operational systems, and at times procurement funds are used to pay for further development and testing of systems. For example, the Advanced Extremely High Frequency (AEHF) satellite communications program is using RDT&E funds to procure the first two operational satellites of what was, until recently, only a three satellite constellation.

One of the stated goals of the FY 2010 budget request is to begin the process of rebalancing investments in weapon systems to focus more on the capabilities needed in irregular warfare versus conventional warfare. Several changes along these lines are noted in the budget, such as the procurement of additional light/attack helicopters, ISR assets (such as Predator UAVs), and SIGINT-capable manned aircraft (such as the Air Force's C-12). In total, these changes appear to be quite modest relative to the overall defense budget for weapon systems. According to Secretary Gates, only ten percent of the budget is for irregular warfare capabilities, with 50 percent going to conventional capabilities and the remaining 40 percent for dual-purpose systems.[36]

The FY 2010 base defense budget proposes $78.6 billion in funding for RDT&E, which is nearly 15 percent of the total base budget. This is a 2.1 percent real decrease from FY 2009, but from an historical perspective it remains at an extraordinarily high level. Adjusting for inflation, the previous peak in RDT&E spending was $61.2 billion in FY 1987. Under the administration's plan, RDT&E funding would remain essentially constant through FY 2014, growing only at the pace of inflation. Within the RDT&E budget, the administration is shifting funding away from early research and development activities, such as Applied Research and Advanced Technology Demonstration, towards later developmental activities, such as Operational Systems Development. (Figure 4)[37]

Procurement funding, on the other hand, increased in the base budget to $107.4 billion, a real increase of 4.6 percent over the FY 2009 base budget. Before the budget release, Secretary Gates announced a number of program cuts and terminations

[36] Based on comments by Secretary Gates following his prepared remarks on April 6th, 2009. For a transcript of the question-and-answer session, see: http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4396.

[37] FY 2009 funding shown in Figures 4 and 5 include the President's request for additional FY 2009 supplemental funding but not the actual amounts that were signed into law on June 24, 2009, which were not available in this manner of categorization at the time of publication.

FIGURE 4. RDT&E BUDGET AUTHORITY
(IN BILLIONS OF FY 2010 DOLLARS)

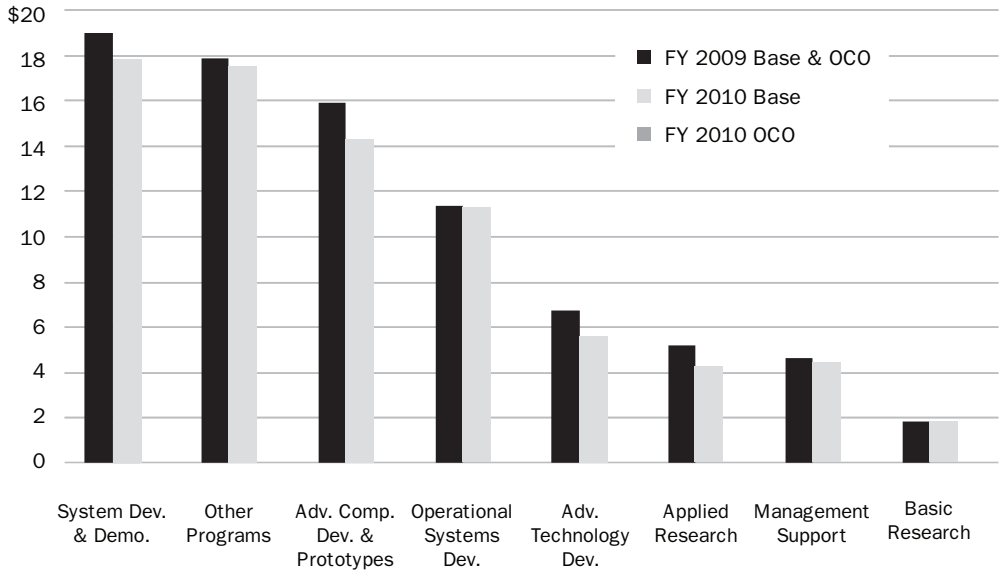
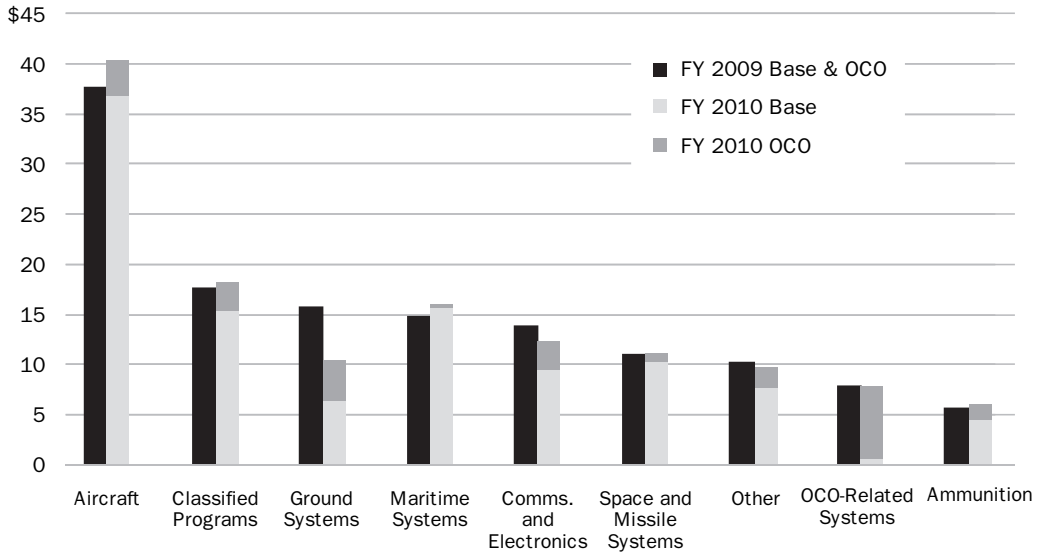



FIGURE 5. PROCUREMENT BUDGET AUTHORITY
(IN BILLIONS OF FY 2010 DOLLARS)



(discussed above). However, many of the reductions in programs announced are offset by increases in other programs. For example, while the budget request ends the F-22 program at 187 aircraft, the F-35 Joint Strike Fighter is accelerated with additional funding. In total, the procurement budget increased by $4.7 billion in real terms. In comparison, procurement is up 56 percent in real terms from FY 2000. The previous peak in procurement spending was $174.7 billion (adjusted for inflation) in FY 1985. Like RDT&E funding, the administration's projection for future procurement funding is essentially flat over the next five years. (Figure 5)[37]

**The relatively high level of funding currently allocated to the development of new weapon systems is undermining DoD's ability to substantially fund for the procurement of new weapon systems.**

One issue not addressed in the President's budget request is the lagging pace of recapitalization for some types of equipment. For example, the average age of aircraft in the Air Force inventory is twenty-four years and is projected to climb to twenty-seven years by 2020.[38] As Secretary Gates has noted, DoD modernization initiatives have been plagued by the piling on of "exquisite" requirements, which have driven up costs and stretched out procurement schedules.[39] As a result, lower quantities of equipment are being procured, and a bow wave of equipment needs is being pushed out year after year beyond the Future Years Defense Program. The sharp increase in defense spending for procurement and RDT&E since 2001 has not reversed this trend, and the increased usage rates of equipment in the harsh environments of Iraq and Afghanistan have only exacerbated the problem.

One factor contributing to the lagging pace of procurements is that the relatively high level of funding currently allocated to the *development* of new weapon systems is undermining DoD's ability to substantially fund for the *procurement* of new weapon systems. In the 1970s and 1980s the ratio of procurement to RDT&E funding was around 3 to 1. During the peak of the Reagan arms buildup from FY 1980-85, the ratio edged up to 3.5 to 1. By contrast, since FY 1993, the ratio of procurement to RDT&E funding in the base budget has been hovering between 1.2 and 1.5 to 1, as more of the total funding for weapon system acquisitions has been absorbed by RDT&E. As noted above, under the administration's plan, funding for both procurement and RDT&E is projected to remain relatively flat over the next five years, which would maintain the current ratio of 1.4 to 1.

The change in the ratio of procurement to RDT&E funding is being driven primarily by increases in RDT&E costs. Procurement funding, while at a high level, is not at or near the record level RDT&E funding has reached. A recurring trend in DoD acquisitions is that new weapon systems tend to cost more to develop than assumed in DoD's plans, which drives up development costs and leaves less for procurement. Acquisition programs are procuring next generation systems in much smaller quantities than the legacy systems they are replacing. While next generation systems are generally much more capable than the previous generation, trading many legacy systems for fewer next

[38] Norton A. Schwartz, *Answers to Advance Questions from Senate Armed Services Committee* (Washington DC: US Senate, July 22, 2008).

[39] Robert Gates, *Defense Budget Recommendation Statement* (Arlington, VA: n/p, April 6, 2009).

generation systems is not always the best strategy for modernization. At the most basic level, there are three different means by which forces can be modernized:

- Current-generation systems (e.g., F-15 and F-16 fighters) can be replaced with next-generation weapon systems (e.g., the F-22 and F-35, respectively). Next-generation weapon systems are likely to display the most dramatic improvements in capabilities. However, they are also by far the most expensive systems to produce—typically costing at least several times as much per unit as the systems they are intended to replace.
- Current-generation systems can be replaced with the latest versions of the same system (e.g., old F-16s replaced with the most current versions of the F-16 now being produced). Often these newer systems are far more capable than the earlier versions they replace. These systems also tend to cost much less to produce than next-generation systems. For example, the Air Force version of the JSF appears likely to cost about 50 percent more than the latest F-16 Block 60 aircraft.[40]
- Current-generation systems can be upgraded to extend their service life. The cost of upgrade and modification efforts varies greatly, depending on how extensive the efforts are, but overall costs tend to be less than the cost of buying new current-generation systems.

The budget request includes a mix of these different approaches. But DoD's plans remain heavily weighted toward the first approach—the acquisition of next-generation systems—which requires a higher level of funding. As previously discussed, the funding for weapon systems is projected to remain flat over the next five years while a bow wave of equipment recapitalization is building, making this approach problematic. An approach that includes the purchase of some next-generation weapon systems, but focuses more on the production of new current-generation systems, upgrades of existing systems, and selective reductions in the force structure might cost substantially less.

Another option would be to focus more on buying new kinds of systems that could prove more cost-effective rather buying more of the same types of weapon systems (whether current- or next-generation systems). For example, rather than buying *both* new long-range bombers and thousands of new short-range F-35 fighters, DoD might consider whether the new bombers—given their much larger payload capacity—could represent a cost-effective substitute for some number of these new fighters. Moreover, the use of unmanned systems that have much greater range and loiter times and a much lower price tag could enable a radically different force structure that achieves the same level of effectiveness at a much lower cost.

The Quadrennial Defense Review (QDR) currently in progress provides an opportunity to address many of these issues. The QDR will define the types of threats and

[40] Steven M. Kosiak and Barry D. Watts, *US Fighter Modernization Plans: Near-Term Choices* (Washington, DC: Center for Strategic & Budgetary Assessments, 2007), p. 21.

contingencies the Department is likely to face in the future and the weapons and force structure needed to meet these threats. The FY 2011 budget will be the first opportunity to implement changes in weapon system programs as a result of the QDR. For this reason, the Department elected not to provide a detailed Future Year Defense Program (FYDP) as part of the budget submission this year. They instead provided only top-line numbers for future funding levels, which leaves open the possibility of significant changes to weapon systems programs in the next budget.

## MAJOR ACQUISITION PROGRAMS

### Army

The Army's FY 2010 request includes $10.4 billion for RDT&E and $23.2 billion for procurement in the base budget. It includes an additional $58 million for RDT&E and $11.1 billion for procurement in the OCO budget.

AH-64 APACHE: The FY 2010 budget request provides $219 million for upgrades to the Army's fleet of AH-64 Apache attack helicopters, plus $151 million for continued RDT&E. These upgrades include the addition of Target Acquisition Designation Sight (TADS)/Pilot Night Vision Sensors (PNVS), as well as a variety of safety and reliability improvements. Specifically, the budget request supports the remanufacture of eight additional AH-64A helicopters to the more capable AH-64D (Longbow) configuration.

UH-60 BLACK HAWK: The FY 2010 request includes $1.4 billion for the procurement of seventy-nine Blackhawk UH-60 utility helicopters, plus $34 million for RDT&E. The Army's cancellation of the $38 billion Comanche reconnaissance/attack helicopter program in 2004 freed up additional funding for a number of other Army helicopter programs, including the UH-60. By comparison, only seventeen of these helicopters were procured in FY 2004, before the Comanche's cancellation.

CH-47 CHINOOK: The Army is requesting a total of $922 million in the FY 2010 base budget and $141 million in the OCO budget to purchase twenty-five new CH-47F helicopters and remanufacture fourteen additional aircraft. The CH-47F is used to transport troops, ammunition, and other supplies in support of combat operations.

LIGHT UTILITY HELICOPTER (LUH): The budget request includes $326 million for procurement of fifty-four Light Utility Helicopters. The UH-72A replaces the UH-1 and OH-58 Kiowa Warrior and provides aerial transport for logistical and administrative support. It is a commercial-off-the-shelf aircraft based on the EADS North America Eurocopter EC145. The Army plans to eventually field a fleet of 345 aircraft.
RQ-7 SHADOW/RQ-11 RAVEN: The Raven is a small, backpack-portable UAV for use at the battalion level and below to enhance "over the hill" situational awareness. The

Shadow is a larger, more capable UAV that provides force protection, reconnaissance, and target acquisition. The base budget requests for the Army and Marine Corps provide $138 million for the procurement of eleven Shadow and 1,135 Raven aircraft. The Army and Marine Corps' OCO budgets provide $87 million for an additional 86 Ravens and related RDT&E efforts.

STRYKER FAMILY OF ARMORED VEHICLES: The Stryker program is a key element in the Army's transformation plans. The Stryker is intended to provide a relatively light and easily deployable combat vehicle to bridge the gap between today's lethal, but relatively heavy forces, and the more capable and deployable systems to be developed under the FCS program. The FY 2010 request includes $90 million for RDT&E and $387 million in procurement funding for survivability enhancements to existing vehicles, as well as systems engineering support and training equipment. No additional vehicles are purchased as part of the FY 2010 budget request.

**The FCS program has experienced significant cost growth and schedule delays in recent years.**

FUTURE COMBAT SYSTEMS: The FCS program is the centerpiece of the Army plans to equip the future force. This force is expected to be both more deployable than today's forces and more lethal and survivable than the interim forces presently being procured. The FCS program has experienced significant cost growth and schedule delays in recent years, with costs projected to reach some $161 billion or more, and substantial technical obstacles yet to be overcome.[41] The FY 2010 budget request begins the process of restructuring the FCS program. It cancels the current manned ground vehicle efforts, the non-line-of-sight canon, and the medium range munitions. However, it retains key elements of the FCS system of systems, such as the unmanned ground vehicles, unmanned aerial vehicles, unattended ground sensors, and the connecting information network. It also creates a new combat vehicle development program in place of the manned ground vehicle portion of the program that is terminated. The request includes $2.7 billion in RDT&E funding for the FCS program, plus $328 million in advance procurement funding.

M-1 ABRAMS TANK: The budget request provides $471 million to upgrade twenty-two older M-1 Abrams tanks. Among other things, upgrades include improved frontal and side armor, a forward looking infrared sensor, and digitized communications.

[41] This level of funding would be sufficient to equip about one-third of the active Army with the FCS.

## Navy and Marine Corps

The Navy's FY 2010 base budget, which includes funding for the Marine Corps, requests $19.3 billion for RDT&E and $43.7 billion for procurement. The Navy's OCO budget provides $0.1 billion for RDT&E and $3.2 billion for procurement.

F/A-18E/F: The administration is requesting $1.2 billion for the F/A-18E/F aircraft program in FY 2010, including $128 million for continued development and $1.061 billion to procure nine additional aircraft and associated spare parts and to modify existing aircraft. In production since FY 1997, the F/A-18E/F is a substantially changed derivative of the older A-D versions of the F/A-18, featuring, among other things, a longer fuselage and larger wings.

E/A-18G: The FY 2010 budget includes $1.7 billion for the E/A-18G program. This variant of the F/A-18E/F is intended to replace the EA-6B in the electronic warfare role. The request includes $1.632 billion to procure twenty-two of these aircraft and $55 million for continued R&D.

V-22 OSPREY: The proposed budget provides $109 million in RDT&E funding for the V-22 tilt-rotor, vertical take-off and landing aircraft, plus $2.3 billion in procurement funding to buy thirty Marine Corps (MV-22) versions of the aircraft and $451 million for five Air Force versions of the aircraft (CV-22). The V-22 program has suffered from significant technical problems and cost growth in recent years. The MV-22 is intended to replace the Marine Corps' CH-46 and CH-53 helicopters. The CV-22 will be used for special operations forces (SOF) and the HV-22 will be used for search and rescue.

DDG 1000: The FY 2010 budget request includes $1.6 billion to support the second year of incremental funding for the third and final ship and $539 million in RDT&E funding. Unlike the DDG-51 guided-missile destroyer, which is focused primarily on the air defense mission, the DDG 1000—formerly the DD(X)—is intended to be a multi-mission combatant with a substantial land-attack capability. Previous Navy plans called for buying a total of seven DDG 1000s, but the administration has decided to end the program at three.[42]

LITTORAL COMBAT SHIP (LCS): The LCS is a new surface combatant intended to focus on the kinds of threats likely to be confronted in coastal waters, such as mines, diesel submarines, and "swarm attacks" by small boats. Each ship is capable of being equipped with mission modules focused on different types of threats. Navy plans call for two industry teams to build competing designs of this new type of ship. The FY 2005

[42] For a discussion of Navy plans for its surface fleet, see Robert O. Work, *Know When to Hold 'Em, Know When to Fold 'Em: A New Transformation Plan for the Navy's Surface Battle Line* (Washington, DC: Center for Strategic & Budgetary Assessments, 2007).

budget included funding for the first of these new ships. The proposed FY 2010 budget would provide $1.52 billion for the procurement of three LCSs (at the congressionally mandated cost cap of $460 million each) as well as LCS mission modules. The request also includes $361 million for continued RDT&E. The LCS is to be roughly the size of a frigate (i.e., around 3,000 tons) and more affordable than the much larger (14,000-ton) DDG 1000.

**The JTRS radios, while more capable, cost about ten times as much per unit as legacy tactical radios, which could hamper the Services' efforts to field the new radios broadly across the force structure.**

SSN-774 VIRGINIA CLASS SUBMARINE: The administration's FY 2010 request includes $4.0 billion in procurement funding for one Virginia-class attack submarine and advance procurement for future ships, plus $155 million for RDT&E. This class of submarines is being built jointly by General Dynamics-Electric Boat of Groton, CT, and Northrop Grumman's Newport News Shipbuilding (NGNN) of Newport News, VA. The Navy has been buying Virginia-class submarines at a rate of one per year, with plans to increase the production rate to two boats per year in FY 2011 and beyond. Whether the Navy can reach this goal will depend in part on how successful it is at achieving its cost goals for the SSN-774, as well as the DDG 1000, the LCS, and other ships.

CVN-21 CARRIER REPLACEMENT: Under the administration's defense plan, $174 million in RDT&E and $1.2 billion in procurement funding would be provided in FY 2010 for the CVN-21 program. This includes the third year of incremental funding for construction of the lead ship of this new class of aircraft carrier (CVN-78), as well as funding to cover the cost of long-lead items for the second ship of this class (CVN-79). The administration has decided to stretch the procurement rate of the replacement carriers to one every five years instead of one every four years, which will reduce the fleet from eleven to ten carriers not later than 2040.

DDG-51 AEGIS DESTROYER: The FY 2010 budget request includes $2.2 billion in funding for the procurement of an additional DDG-51 Aegis Destroyer. The ship is armed with a vertical launching system for missiles and a five inch gun. The program is being restarted as part of broader changes to missile defense programs that are shifting the focus to theater missile defense systems, like Aegis, needed to meet near-term threats.

JOINT TACTICAL RADIO SYSTEM (JTRS): The administration's budget request includes $1.1 billion in continued funding for the JTRS program. This program was initiated in 1997 to create a family of interoperable radios using software defined radio technology. Over the past twelve years it has encountered numerous technical and programmatic issues, which resulted in a restructuring of the program in 2006. Delays in development and production of JTRS radios forced the Services to procure additional legacy radios to cover the production gap at a cost of $5.7 billion between FY 2003 and FY 2007. The FY 2010 budget supports the manufacture of engineering design models (EDMs) and low-rate initial production (LRIP) of JTRS hardware and software. An on-going concern for the program is the per-unit cost of the radios. Legacy radios cost about

$20,000 each, and the JTRS radios, while more capable, cost about ten times as much per unit, which could hamper the Services' efforts to field the new radios broadly across the force structure.[43]

The FY 2010 budget request calls for procuring a total of 187 F-22s, including the last 20 that were funded in the FY 2009 base budget and an additional four funded through a supplemental appropriation.

EXPEDITIONARY FIGHTING VEHICLE (EFV): The Marine Corps' EFV is a tracked, amphibious combat vehicle for ship to shore operations. It can carry a crew of three plus seventeen combat-loaded marines, and it will replace the currently fielded Amphibious Assault Vehicle (AAV). The program was restructured in 2007 following a Nunn-McCurdy breach. Due to manufacturing and reliability issues, the initial operational capability (IOC) date has slipped by five years and R&D costs have more than doubled.[44] The FY 2010 budget request includes $294 million for continued system development.

## Air Force

The Air Force's FY 2010 request includes $28.0 billion for RDT&E and $36.4 billion for procurement in the base budget and $29 million for RDT&E and $3.6 billion in procurement in the OCO budget.

F-22 RAPTOR: Designed to replace the Air Force's existing fleet of F-15 air superiority fighters, the F-22 is now intended to carry out ground attack missions as well. The FY 2010 budget request does not include funding for the procurement of any additional aircraft. The current plan calls for procuring a total of 187 F-22s, including the last twenty that were funded in the FY 2009 base budget and an additional four funded through a supplemental appropriation. In the 1990s, the Air Force originally planned to procure 740 aircraft. More recently, the Air Force concluded that 381 were needed for a "low-risk force of F-22s." The Air Force reviewed the number again in 2008 and determined that 243 aircraft were needed for a "moderate-risk force." On April 6, 2009, Defense Secretary Gates announced that he would seek to end the production of F-22s at the currently funded number of 187, and both Secretary of the Air Force Donley and Air Force Chief of Staff Schwartz have publicly supported this position.[45]

F-35 JOINT STRIKE FIGHTER: The F-35 is a Joint acquisition program, with separate variants being produced for the Air Force, Navy, and Marine Corps. It is intended to replace the A-10, F-16, AV-8B (Harrier), and F/A-18C/D. The proposed FY 2010 budget provides a total of $10.4 billion for the F-35 program, a real increase of 52 percent from last year. It includes the procurement of a total of thirty aircraft this year for the Navy,

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[43] GAO, *Defense Acquisitions: Department of Defense Needs Framework for Balancing Investments in Tactical Radios* (Washington DC: GAO, August 2008).

[44] GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs* (Washington DC: GAO, March 30, 2009) pp. 77–8.

[45] Michael Donley and Norton Schwartz, *Moving Beyond the F-22*, (Washington DC: Washington Post, April 13, 2009) p. A15.

Marine Corps, and Air Force, as well as $3.6 billion in continued RDT&E funding. The first two F-35s were procured (by the Air Force) in FY 2007. Since then, twelve aircraft were procured in FY 2008 and fourteen in FY 2009. The FY 2010 would bring the cumulative number of aircraft procured to fifty-eight, with a total buy of 2,443 planned.

MQ-1 PREDATOR/ MQ-9 REAPER: The MQ-1/MQ-9 Unmanned Aerial System (UAS) provides an over-the-horizon, long-endurance reconnaissance and strike capability. The FY 2010 request includes $1.03 billion in the base budget for forty-eight aircraft and $253 million in the OCO budget for an additional twelve aircraft. The Reaper variant of this aircraft is being procured for the Air Force and the Warrior variant for the Army.

B-2 SPIRIT: The administration is requesting $699 million for the B-2 bomber program in FY 2010, primarily for the development and procurement of modifications and upgrades to the existing fleet of twenty aircraft.[46] In the 2006 QDR, the administration announced that the Air Force would begin fielding a new long-range strike system in 2018. As previously discussed, the Terminations, Reductions, and Savings section of the budget lists the next-generation-bomber as one of the proposed terminations. In recent testimony before the House Appropriations Committee, Subcommittee on Defense, the Air Force indicated that $140 million in funding for the NGB was included as a classified item in the unfunded priorities list submitted to Congress.[47]

C-17 GLOBEMASTER: The administration's request includes $852 million in development and procurement of upgrades for the C-17 intercontinental-range cargo aircraft, primarily for the Large Aircraft Infrared Countermeasures (LAIRCM) system. To date, the Air Force has procured a total of 205 C-17s. DoD officials have concluded that the current C-17 fleet is sufficient to meet the nation's airlift requirements as determined by the 2005 Mobility Capabilities Study. Originally, the Air Force had hoped to buy a total of 210 C-17s and, in recent years, it has expressed a desire for as many as 222. The budget request does not include funding for the procurement of any additional aircraft, and instead funds shutdown activities to close the production line in Long Beach, CA.

KC-X AERIAL REFUELING TANKER: In March 2008, the Air Force selected a team led by Northrop Grumman and the European Aeronautic Defense and Space (EADS) Company to produce the KC-X Aerial Refueling Tanker. Boeing subsequently protested this decision, and the GAO ruled in its favor, forcing the Air Force to recomplete the contract. The new tanker would replace the Service's existing fleet of over 500 KC-135

[46] A total of 21 B-2 bombers were produced. However, one aircraft crashed in February 2008.

[47] Revealed during questioning of Secretary Donley and Chief of Staff Schwartz before the House Appropriations Committee, Subcommittee on Defense, June 3, 2009.

and KC-10 tankers. The FY 2010 request provides $440 million in RDT&E funding for the program to conduct another source selection and begin development of the aircraft.

JOINT CARGO AIRCRAFT (JCA): The FY 2010 budget includes $329 million for the JCA. The JCA is a commercial derivative aircraft that provides an intra-theater, light cargo airlift capability. The program had previously been funded through the Army, but the FY 2010 request moves the program to the Air Force. The budget provides for the procurement of eight additional aircraft in FY 2010.

SPACE-BASED INFRARED SYSTEM (SBIRS)-HIGH: The FY 2010 budget request includes $1.0 billion for the SBIRS-High program. The goal of this program is to field a constellation of satellites to provide improved warning of ballistic missile launches (replacing existing Defense Support Program satellites), as well as support national missile defense and intelligence collection efforts.

ADVANCED EXTREMELY HIGH FREQUENCY (AEHF): The FY 2010 budget request includes $2.3 billion for the AEHF satellite constellation, which will provide worldwide, survivable, jam-resistant communications at data rates up to five times as high as the Milstar satellites they replace. The constellation was originally planned to include five satellites, but was scaled down to only three satellites when the Transformational Satellite Communications System (TSAT) program was initiated as an early replacement for AEHF. A fourth satellite was added back to the AEHF program as a result of the TSAT program slipping its schedule by a total of six years over a six- year period.[48] The FY 2010 request terminates the TSAT program and adds two additional satellites to the AEHF program, bringing the total number of planned satellites in the constellation to six.

GLOBAL POSITIONING SYSTEM (GPS): The FY 2010 request provides a total of $928 million for the GPS program, with $867 million directed for RDT&E and $61 million for procurement. The GPS program has experienced difficulties recently with delays and cost overruns in the Block IIF satellites. The next generation of Block IIIA satellites, which is part of the budget request, needs to launch on time in order to avoid a risk of degradation or gaps in GPS service.[49]

[48] The TSAT program began in 2003 with a first launch date of 2013. By early 2009 the program had slipped the first launch date to 2019.

[49] GAO, *Global Positioning System: Significant Challenges in Sustaining and Upgrading Widely Used Capabilities* (Washington DC: GAO, April 2009).

## Missile Defense

The FY 2010 budget request provides about $9.3 billion for missile defense programs. This includes $7.8 billion provided through the Missile Defense Agency (MDA), $1.4 billion funded through the Army and $97 million provided through the Joint Staff. The total is down $1.7 billion (16 percent) in real terms compared to what was provided in the FY 2009 budget, but it is some $4 billion above the level appropriated in the FY 2001 budget, the year before the Bush Administration's first budget. The net effect of these changes is to shift the focus from national missile defense (NMD) systems, designed to protect the United States from strategic ballistic missile attack, to theater missile defense (TMD) systems, intended to protect forward-deployed US forces against shorter-range ballistic missiles.

Some of the advantages of this approach are that it is more affordable in both the near term and long term, and it invests money in systems that are proven effective. The programs that the budget proposes to cut or terminate, with the exception of GMD, are still in development and have significant technical hurdles that have yet to be overcome. On the other hand, this approach does not put the nation on a path to providing the same level of national missile defense protection in the future. In particular, reducing the number of operational Ground Based Interceptors to thirty with no replacement or replenishment program planned could result in too few missiles to provide a basic level of protection, especially as these missiles are depleted over time from regular test launches.[50]

**The administration is opting not to procure a second Airborne Laser aircraft for testing purposes and to instead continue the test program with the existing aircraft to prove the technology before investing further in this capability.**

THEATER HIGH ALTITUDE AREA DEFENSE (THAAD): The FY 2010 request includes a total of $1.1 billion for the THAAD program, $420 million of which is for procurement. The level of procurement funding is four times the level appropriated in FY 2009 and will be used to buy twenty-six additional THAAD missiles.

AEGIS BALLISTIC MISSILE DEFENSE: The administration included $169 million in procurement and $1.7 billion in RDT&E funding for Aegis BMD. The funding for Aegis BMD is up 57 percent in real terms from FY 2009. The increase will be used to procure eighteen additional SM-3 interceptors and continue hardware and software development and ship upgrades. This is in addition to the separate Navy funding for another DDG-51 Aegis Destroyer.

AIRBORNE LASER (ABL): The administration is opting not to procure a second Airborne Laser aircraft (a modified Boeing 747) for testing purposes and to instead continue the test program with the existing aircraft to prove the technology before investing further in this capability. The FY 2010 budget request funds ABL at $187 million, less than half of what it received in FY 2009.

[50] Regular test launches of missiles stored in silos are needed to ensure their continued readiness. The current test plan proposed by MDA is to test fire a GBI missile every nine months.

GROUND BASED MIDCOURSE DEFENSE (GMD): The FY 2010 budget request for GMD is down 35 percent in real terms from the previous year, to $983 million. The decrease in funding is due to a reduction in the number of deployed Ground Based Interceptors (GBIs) from forty-four to thirty, the cancellation of missile field construction at Fort Greely, Alaska, and the movement of the European Capability funding to a separate budget line.

MULTIPLE KILL VEHICLE (MKV): The Obama Administration proposes the termination of the MKV program in the FY 2010 budget request, a savings of $488 million over what the previous administration planned to spend in FY 2010. The MKV was intended to be integrated with a midcourse interceptor to allow it to destroy multiple warheads deployed by a single incoming missile. In cancelling the program, the administration cited the lack of maturity in the underlying technology and the intent to pursue a strategy of intercepting missiles earlier in their ascent before complex countermeasures (such as decoy warheads) can be deployed.

KINETIC ENERGY INTERCEPTOR (KEI): The KEI program was restructured in 2007 to focus on developing a high-acceleration booster. However, since that time the program has encountered many technical challenges and delays during development and testing. In addition, the cost-effectiveness of the system has been questioned, at an estimated price of $50 million per interceptor. The FY 2010 budget request terminates this program for a savings of $501 million in FY 2010.

## MILITARY CONSTRUCTION AND FAMILY HOUSING

The administration is requesting $21.0 billion for military construction and $2.0 billion for family housing in DoD's FY 2010 base budget. The FY 2010 request for military construction is a 5.1 percent decrease in real terms from the level provided in the FY 2009 base budget, although it is still near the highest level of funding for military construction since the early 1950s. Family housing decreased even more significantly, down 39 percent from last year. It should also be noted that the American Recovery and Reinvestment Act of 2009 provided an additional $2.2 billion for military construction and $690 million for family housing, which may be offsetting expenses that otherwise would have been funded in the FY 2010 budget.

The higher level of military construction funding included in DoD's base budget in recent years has been driven primarily by the 2005 base realignment and closure (BRAC) process. The previous BRAC rounds begun in 1988, 1991, 1993, and 1995 resulted in the closure of ninety-seven major bases (equivalent to about 21 percent of DoD's domestic basing structure). The 2005 round identified twenty-two major bases for closure. Over the long term, base closures save money, but there are substantial upfront costs associated with the BRAC process related, among other things, to environmental cleanup and

the need to reconstitute, at remaining bases, some capabilities existing at bases selected for closure. The FY 2010 request includes $7.9 billion to cover BRAC-related costs.

## UNFUNDED PRIORITIES

Each year the Services rank and prioritize items for inclusion in the budget request. Unfunded priorities are those items not included in the budget request because they are a lower priority and do not fit within the funding ceiling set for the Department. The Services' lists of unfunded priorities, sometimes referred to as "wish lists," are routinely requested by Congress for consideration during their markup of the budget. The total of the unfunded requirements has grown dramatically in recent years, going from $7.6 billion in FY 2001 to a peak of $35 billion in FY 2008. Last year's unfunded priorities totaled over $30 billion and included such items as $3 billion for the procurement of additional C-17s. In a departure from precedent, this year Secretary Gates required the Services to present their unfunded priorities to him for review before submitting them to Congress. Unfunded priorities for FY 2010 total just $3.4 billion—an order of magnitude less than last year.

**Unfunded priorities for FY 2010 total just $3.4 billion—an order of magnitude less than last year.**

AIR FORCE: Nearly half of the total number of unfunded priorities for FY 2010 come from the Air Force. The Air Force's list includes twenty separate items totaling $1.9 billion. At the top of the list is $180 million to lease two additional BD-700 aircraft and outfit them with the Battlefield Airborne Communications Node (BACN) payload. The Air Force requests $143 million for procurement shortfalls in the F-35 program, $136 million for F-22 post-production support activities, and $103 million for two Operationally Responsive Space (ORS) satellites. The list also includes two classified items that together cost $331 million.

ARMY: The Army's unfunded priorities for FY 2010 total $953 million. The largest single item included is $243 million for Force Provider, a containerized base camp system that provides climate-controlled billeting, dining, and hygiene facilities for deployed troops. It also requests $179 million for Force XXI Battlefield Command Brigade and Below, a communications platform that provides situational awareness for battlefield commanders, and $100 million for Common Remotely Operated Weapons System (Crows), a system that allows soldiers to operate weapons (e.g. M2 machine guns) remotely.

MARINE CORPS: The unfunded priorities submitted to Congress by the Marine Corps total $188 million. The largest items in the list are $29 million to procure 352 Medium Tactical Vehicle Replacement (MTVR) trailers, $24 million to procure 177 extendable boom forklifts, and $23 million for a combat vehicle repair facility.

NAVY: The Navy unfunded priorities total $395 million. The list contains $200 million for ship depot maintenance and $195 million for aviation depot maintenance. According to the Navy, both items are only partially funded in the base budget request. The additional money would fund depot maintenance for an additional 86 airframes, 314 aircraft engines, and 20 surface ships.

SPECIAL OPERATIONS COMMAND (SOCOM): SOCOM also submitted a list of unfunded priorities that totals $309 million. The largest and highest-priority item on this list is $85 million for the modification of four additional MC-130W aircraft to provide day/night precision strike and mobility capability for Special Operations Forces. Other priorities include modifications to HMMWVs, procurement of hand-launched UAVs, and various types of support equipment ranging from radios to handheld imagers.

# III. CONCLUSION

The Obama Administration's FY 2010 defense budget request continues the growth in the base defense budget while beginning to draw down the funding for Overseas Contingency Operations. The budget for FY 2010 requests a total of $668 billion for defense, including $538 billion for the base DoD budget and $130 billion for ongoing military operations around the world. The base DoD budget represents an $18 billion real increase over last year's budget, in real terms, and the request for the ongoing wars in Iraq and Afghanistan is a real decrease of $17 billion from the level of funding in FY 2009.

While the administration did not include a detailed Future Year Defense Plan (FYDP), as is customary with the budget release, it did include top line numbers for future defense funding. Under the administration's plan, the base defense budget is projected to increase only slightly (by about 0.2 percent annually) in real terms over the FY 2011-2014 period. This would maintain funding for defense (exclusive of war costs) at a high level by historical standards. In real terms, the base budget is about four percent above the level reached in FY 1985, the previous peak for the US defense budget, and is at the highest level since World War II.

**Broader economic conditions and the state of the federal budget overall will likely constrain the defense budget in the coming years.**

Broader economic conditions and the state of the federal budget overall will likely constrain the defense budget in the coming years. The long-term federal budget picture has dramatically worsened over the past eight years. In January 2001, CBO projected a five-year surplus of $2.0 trillion over the FY 2002-2006 period.[51] The combination of lower revenues from tax cuts and dramatic increases in spending on defense, homeland security, and healthcare turned that projected surplus into a deficit of $1.5 trillion over the same period. CBO's estimate for the next five-year period, FY 2010-2014, projects a deficit of $4.4 trillion. By FY 2014, the debt held by the public will be 73 percent of the GDP and climbing—a level that many economists have warned is not sustainable.[52]

Even if the administration is able to maintain defense spending at projected levels, underlying trends within the Department will constrain how that money is spent. The small growth that is projected within the defense budget is primarily in personnel and operations and maintenance accounts. As these costs continue to grow, driven by steady increases in military pay, benefits, and healthcare costs, they will effectively limit the growth in other areas of the budget, such as RDT&E and procurement. Spending on weapon systems is projected to remain relatively flat, but if history is any guide, the

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[51] CBO, *The Budget and Economic Outlook: Fiscal Years 2002–2011* (Washington DC: CBO, January 2001) p. xiv.

[52] CBO, *Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook: Historical Budget Data* (Washington DC: CBO, March 2009).

current plans are likely to prove substantially more costly to execute than assumed by the administration.

Options for dealing with the tightening budget situation are limited. In the coming years, pressure will likely continue to grow for DoD to scale back its plans, including both major modernization efforts and force structure plans. This budget begins the process of cutting some modernization efforts that have been deemed unnecessary or unaffordable. Further cuts may prove challenging as the need to recapitalize equipment continues to grow. It will likely be difficult or impossible to make reductions in some programs and activities—especially in the Army and Marine Corps force structure—so long as a large US military presence is required in Iraq and Afghanistan or it is deemed necessary to maintain the capability to conduct such large-scale stability operations in the future. The ongoing Quadrennial Defense Review (QDR) will attempt to address many of these strategic questions. Whatever path is selected, effectively addressing the growing cost of DoD's plans and the growing size of the federal deficit will require making some hard decisions. And the sooner those decisions are made the less painful they will be to carry out.

# IV. APPENDIX

## TABLE 2. NATIONAL DEFENSE BUDGET AUTHORITY AND OUTLAYS (IN BILLIONS OF CURRENT DOLLARS)

| **Budget Authority** | **FY 80** | **FY 85** | **FY 90** | **FY 95** | **FY 00** | **FY 01** | **FY 02** | **FY 03** | **FY 04** | **FY 05** | **FY 06** | **FY 07** | **FY08** | **FY 09**** | **FY 10** | **FY 11** | **FY 12** | **FY 13** | **FY 14** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DoD (051) | 140.7 | 286.8 | 292.9 | 255.7 | 290.3 | 318.7 | 344.9 | 437.7 | 470.9 | 483.9 | 532.9 | 603.0 | 674.7 | 667.8 | 667.7 | 596.0 | 605.1 | 615.7 | 629.3 |
| DoE & Other | 3.2 | 7.9 | 10.3 | 10.7 | 13.7 | 16.2 | 17.1 | 18.3 | 19.6 | 21.9 | 23.4 | 22.9 | 21.6 | 29.9 | 25.1 | 24.5 | 24.3 | 24.3 | 24.3 |
| National Defense (050) | 143.9 | 294.7 | 303.3 | 266.4 | 304.0 | 334.9 | 362.0 | 456.0 | 490.6 | 505.8 | 556.3 | 625.9 | 696.3 | 697.7 | 692.8 | 620.5 | 629.5 | 640.0 | 653.7 |
| *annual real change** | NA | NA | NA | NA | 2.0% | 7.6% | 6.1% | 23.5% | 4.8% | -0.1% | 6.4% | 9.5% | 8.7% | -1.2% | -1.7% | -11.7% | -0.2% | -0.1% | 0.3% |

| **Outlays** | **FY 80** | **FY 85** | **FY 90** | **FY 95** | **FY 00** | **FY 01** | **FY 02** | **FY 03** | **FY 04** | **FY 05** | **FY 06** | **FY 07** | **FY08** | **FY 09** | **FY10** | **FY 11** | **FY 12** | **FY 13** | **FY 14** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DoD (051) | 130.9 | 245.1 | 289.7 | 259.4 | 281.1 | 290.2 | 331.9 | 387.2 | 436.5 | 474.1 | 499.3 | 528.6 | 594.7 | 665.0 | 685.1 | 631.8 | 608.2 | 611.4 | 620.473 |
| DoE & Other | 3.1 | 7.6 | 9.6 | 12.7 | 13.3 | 14.7 | 16.6 | 17.6 | 19.4 | 21.2 | 22.5 | 22.7 | 21.4 | 25.3 | 27.8 | 26.9 | 25.9 | 24.3 | 24.3 |
| National Defense (050) | 134.0 | 252.7 | 299.3 | 272.1 | 294.4 | 304.9 | 348.5 | 404.8 | 455.8 | 495.3 | 521.8 | 551.3 | 616.1 | 690.3 | 712.9 | 658.7 | 634.1 | 635.8 | 644.8 |
| *annual real change** | NA | NA | NA | NA | 5.0% | 1.1% | 12.2% | 13.9% | 9.8% | 5.3% | 1.9% | 2.8% | 9.2% | 10.4% | 2.2% | -8.9% | -5.3% | -1.5% | -1.5% |

Source: CSBA, July 2009. Based on OMB and DoD data.

* Derived using GDP deflator.

** Includes DoD funding in the American Recovery and Reinvestment Act of 2009 (signed Feb. 17, 2009) and the Supplemental Appropriation Act (signed Jun. 24, 2009).

TABLE 3. NATIONAL DEFENSE (050) BUDGET AUTHORITY, FY 1946-FY 2014
(by fiscal year in billions of dollars)

| | Current Dollars | FY 2010 Dollars* | % real change |
|---|---|---|---|
| 1946 | 44.0 | 416.1 | |
| 1947 | 9.0 | 76.7 | (81.6%) |
| 1948 | 9.5 | 74.2 | (3.3%) |
| 1949 | 10.9 | 82.7 | 11.5% |
| 1950 | 16.5 | 126.6 | 52.9% |
| 1951 | 57.8 | 421.1 | 232.8% |
| 1952 | 67.5 | 473.2 | 12.4% |
| 1953 | 56.9 | 391.5 | (17.3%) |
| 1954 | 38.7 | 263.2 | (32.8%) |
| 1955 | 32.9 | 221.7 | (15.8%) |
| 1956 | 35.0 | 229.9 | 3.7% |
| 1957 | 39.4 | 249.6 | 8.6% |
| 1958 | 40.0 | 246.0 | (1.5%) |
| 1959 | 45.1 | 272.7 | 10.9% |
| 1960 | 44.3 | 265.0 | (2.8%) |
| 1961 | 45.1 | 266.1 | 0.4% |
| 1962 | 50.2 | 292.5 | 9.9% |
| 1963 | 52.1 | 300.1 | 2.6% |
| 1964 | 51.6 | 293.6 | (2.2%) |
| 1965 | 50.6 | 283.0 | (3.6%) |
| 1966 | 64.4 | 353.0 | 24.7% |
| 1967 | 73.1 | 387.9 | 9.9% |
| 1968 | 77.8 | 398.7 | 2.8% |
| 1969 | 78.5 | 384.7 | (3.5%) |
| 1970 | 75.3 | 350.1 | (9.0%) |
| 1971 | 72.7 | 321.8 | (8.1%) |
| 1972 | 76.4 | 322.9 | 0.3% |
| 1973 | 79.1 | 320.1 | (0.9%) |
| 1974 | 81.5 | 307.6 | (3.9%) |
| 1975 | 86.2 | 294.8 | (4.2%) |
| 1976 | 97.3 | 310.4 | 5.3% |
| 1977 | 110.2 | 326.8 | 5.3% |
| 1978 | 117.2 | 325.9 | (0.3%) |
| 1979 | 126.5 | 325.4 | (0.2%) |
| 1980 | 143.9 | 340.3 | 4.6% |
| 1981 | 180.0 | 387.8 | 14.0% |
| 1982 | 216.5 | 436.6 | 12.6% |
| 1983 | 245.0 | 473.2 | 8.4% |
| 1984 | 265.2 | 493.8 | 4.4% |
| 1985 | 294.7 | 531.5 | 7.6% |
| 1986 | 289.1 | 509.7 | (4.1%) |
| 1987 | 287.4 | 493.8 | (3.1%) |
| 1988 | 292.0 | 486.4 | (1.5%) |
| 1989 | 299.6 | 480.3 | (1.2%) |
| 1990 | 303.3 | 468.8 | (2.4%) |
| 1991 | 288.9 | 430.4 | (8.2%) |
| 1992 | 295.1 | 428.8 | (0.4%) |
| 1993 | 281.1 | 399.4 | (6.9%) |
| 1994 | 263.3 | 366.3 | (8.3%) |
| 1995 | 266.4 | 363.0 | (0.9%) |
| 1996 | 266.2 | 355.9 | (2.0%) |
| 1997 | 270.4 | 355.2 | (0.2%) |
| 1998 | 271.0 | 351.9 | (0.9%) |
| 1999 | 292.3 | 374.5 | 6.4% |
| 2000 | 304.0 | 381.9 | 2.0% |
| 2001 | 334.7 | 410.7 | 7.6% |
| 2002 | 362.0 | 435.9 | 6.1% |
| 2003 | 456.0 | 538.2 | 23.5% |
| 2004 | 490.6 | 564.2 | 4.8% |
| 2005 | 505.8 | 563.7 | (0.1%) |
| 2006 | 556.3 | 599.6 | 6.4% |
| 2007 | 625.9 | 656.6 | 9.5% |
| 2008 | 696.3 | 713.5 | 8.7% |
| 2009** | 697.7 | 704.7 | (1.2%) |
| 2010 | 692.8 | 692.8 | (1.7%) |
| 2011 | 620.5 | 612.1 | (11.7%) |
| 2012 | 629.5 | 610.7 | (0.2%) |
| 2013 | 640.0 | 610.0 | (0.1%) |
| 2014 | 653.7 | 612.0 | 0.3% |

Source: CSBA, July 2009. Based on OMB and DoD data.

* Derived using GDP deflator.

** Includes DoD funding in the American Recovery and Reinvestment Act of 2009 (signed Feb. 17, 2009) and the Supplemental Appropriation Act (signed Jun. 24, 2009).

TABLE 4. NATIONAL DEFENSE (050) OUTLAYS, FY 1946–FY 2014
(by fiscal year in billions of dollars)

| | Current Dollars | FY 2010 Dollars* | % real change |
|---|---|---|---|
| 1946 | 42.7 | 403.7 | |
| 1947 | 12.8 | 109.7 | (72.8%) |
| 1948 | 9.1 | 71.2 | (35.1%) |
| 1949 | 13.2 | 99.5 | 39.7% |
| 1950 | 13.7 | 105.4 | 6.0% |
| 1951 | 23.6 | 171.8 | 62.9% |
| 1952 | 46.1 | 323.0 | 88.0% |
| 1953 | 52.8 | 363.4 | 12.5% |
| 1954 | 49.3 | 335.2 | (7.8%) |
| 1955 | 42.7 | 288.2 | (14.0%) |
| 1956 | 42.5 | 279.5 | (3.0%) |
| 1957 | 45.4 | 287.7 | 3.0% |
| 1958 | 46.8 | 287.8 | 0.0% |
| 1959 | 49.0 | 296.7 | 3.1% |
| 1960 | 48.1 | 287.9 | (3.0%) |
| 1961 | 49.6 | 292.5 | 1.6% |
| 1962 | 52.3 | 305.2 | 4.4% |
| 1963 | 53.4 | 307.5 | 0.8% |
| 1964 | 54.8 | 311.6 | 1.3% |
| 1965 | 50.6 | 283.2 | (9.1%) |
| 1966 | 58.1 | 318.3 | 12.4% |
| 1967 | 71.4 | 379.0 | 19.1% |
| 1968 | 81.9 | 419.8 | 10.8% |
| 1969 | 82.5 | 404.3 | (3.7%) |
| 1970 | 81.7 | 379.6 | (6.1%) |
| 1971 | 78.9 | 349.1 | (8.0%) |
| 1972 | 79.2 | 334.6 | (4.1%) |
| 1973 | 76.7 | 310.4 | (7.2%) |
| 1974 | 79.3 | 299.5 | (3.5%) |
| 1975 | 86.5 | 295.8 | (1.2%) |
| 1976 | 89.6 | 285.8 | (3.4%) |
| 1977 | 97.2 | 288.5 | 0.9% |
| 1978 | 104.5 | 290.5 | 0.7% |
| 1979 | 116.3 | 299.3 | 3.0% |
| 1980 | 134.0 | 316.9 | 5.9% |
| 1981 | 157.5 | 339.3 | 7.1% |
| 1982 | 185.3 | 373.7 | 10.1% |
| 1983 | 209.9 | 405.3 | 8.5% |
| 1984 | 227.4 | 423.5 | 4.5% |
| 1985 | 252.7 | 455.9 | 7.6% |
| 1986 | 273.4 | 481.9 | 5.7% |
| 1987 | 282.0 | 484.5 | 0.5% |
| 1988 | 290.4 | 483.6 | (0.2%) |
| 1989 | 303.6 | 486.7 | 0.6% |
| 1990 | 299.3 | 462.7 | (4.9%) |
| 1991 | 273.3 | 407.2 | (12.0%) |
| 1992 | 298.4 | 433.6 | 6.5% |
| 1993 | 291.1 | 413.7 | (4.6%) |
| 1994 | 281.6 | 391.8 | (5.3%) |
| 1995 | 272.1 | 370.7 | (5.4%) |
| 1996 | 265.8 | 355.3 | (4.2%) |
| 1997 | 270.5 | 355.4 | 0.0% |
| 1998 | 268.2 | 348.2 | (2.0%) |
| 1999 | 274.8 | 352.1 | 1.1% |
| 2000 | 294.4 | 369.8 | 5.0% |
| 2001 | 304.8 | 374.0 | 1.1% |
| 2002 | 348.5 | 419.6 | 12.2% |
| 2003 | 404.8 | 477.7 | 13.9% |
| 2004 | 455.8 | 524.3 | 9.8% |
| 2005 | 495.3 | 552.0 | 5.3% |
| 2006 | 521.8 | 562.5 | 1.9% |
| 2007 | 551.3 | 578.4 | 2.8% |
| 2008 | 616.1 | 631.4 | 9.2% |
| 2009** | 690.3 | 697.2 | 10.4% |
| 2010 | 712.9 | 712.9 | 2.2% |
| 2011 | 658.7 | 649.7 | (8.9%) |
| 2012 | 634.1 | 615.2 | (5.3%) |
| 2013 | 635.8 | 606.0 | (1.5%) |
| 2014 | 644.8 | 603.7 | (0.4%) |

Source: CSBA, July 2009. Based on OMB and DoD data.

* Derived using GDP deflator.

** Includes DoD funding in the American Recovery and Reinvestment Act of 2009 (signed Feb. 17, 2009) and the Supplemental Appropriation Act (signed Jun. 24, 2009).

## TABLE 5. DEPARTMENT OF DEFENSE (051) BUDGET AUTHORITY BY TITLE
(in billions of dollars)

| Current Dollars | FY 80~ | FY 85~ | FY 90~ | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 | FY 00 | FY 01 | FY 02 | FY 03 | FY 04 | FY 05 | FY06 | FY07 | FY08 | FY09* | FY10 | FY11 | FY12 | FY13 | FY14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Personnel | 41.1 | 67.8 | 78.9 | 71.6 | 69.8 | 70.3 | 69.8 | 70.6 | 73.8 | 76.9 | 87.0 | 109.1 | 116.1 | 121.3 | 128.5 | 131.8 | 139.0 | 146.5 | 154.7 | 143.3 | 146.5 | 149.8 | 153.8 |
| O&M | 46.4 | 77.8 | 88.4 | 93.7 | 93.6 | 92.3 | 97.2 | 104.9 | 108.7 | 125.2 | 133.2 | 178.3 | 189.8 | 179.2 | 213.5 | 240.2 | 256.2 | 272.4 | 276.7 | 188.5 | 191.9 | 195.4 | 199.8 |
| Procurement | 35.3 | 96.8 | 81.4 | 43.6 | 42.6 | 43.0 | 44.8 | 51.1 | 55.0 | 62.6 | 62.7 | 78.5 | 83.1 | 96.6 | 105.4 | 133.8 | 165.0 | 132.7 | 131.2 | 108.7 | 110.7 | 112.7 | 115.2 |
| RDT&E | 13.6 | 31.3 | 36.5 | 34.5 | 35.0 | 36.4 | 37.1 | 38.3 | 38.7 | 41.6 | 48.7 | 58.1 | 64.6 | 68.8 | 72.9 | 77.5 | 79.6 | 80.9 | 78.9 | 79.6 | 81.0 | 82.5 | 84.4 |
| Military Construction | 2.3 | 5.5 | 5.1 | 5.4 | 6.9 | 5.7 | 5.5 | 5.4 | 5.1 | 5.4 | 6.6 | 6.7 | 6.1 | 7.3 | 9.5 | 14.0 | 22.1 | 26.4 | 22.4 | 21.2 | 21.6 | 22.0 | 22.5 |
| Family Housing | 1.5 | 2.9 | 3.1 | 3.4 | 4.3 | 4.1 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.2 | 3.8 | 4.1 | 4.4 | 4.0 | 2.9 | 3.8 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 |
| Other | 0.5 | 4.7 | -0.4 | 3.4 | 2.4 | 6.1 | 0.1 | 4.5 | 5.5 | 3.3 | 2.6 | 2.9 | 7.4 | 6.6 | 2.3 | 1.7 | 9.9 | 1.1 | 1.9 | 52.7^ | 51.4^ | 51.4^ | 51.5^ |
| DoD | 140.7 | 286.8 | 292.9 | 255.7 | 254.5 | 257.9 | 258.3 | 278.4 | 290.3 | 318.7 | 344.9 | 437.7 | 470.9 | 483.9 | 536.5 | 603.0 | 674.7 | 663.7 | 667.7 | 596.0 | 605.1 | 615.7 | 629.3 |

| FY 2010 Dollars** | FY 80~ | FY85~ | FY 90~ | FY 95 | FY 96 | FY 97 | FY 98 | FY 99 | FY 00 | FY 01 | FY 02 | FY 03 | FY 04 | FY 05 | FY 06 | FY 07 | FY 08 | FY 09* | FY 10 | FY 11 | FY 12 | FY 13 | FY 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Personnel | 97.1 | 122.3 | 121.9 | 97.5 | 93.3 | 92.4 | 90.6 | 90.5 | 92.7 | 94.3 | 104.7 | 128.7 | 133.6 | 135.2 | 138.5 | 138.2 | 142.5 | 147.9 | 154.7 | 141.3 | 142.1 | 142.7 | 144.0 |
| O&M | 109.7 | 140.3 | 136.6 | 127.7 | 125.1 | 121.3 | 126.1 | 134.4 | 136.6 | 153.6 | 160.4 | 210.4 | 218.3 | 199.7 | 230.2 | 252.1 | 262.6 | 275.1 | 276.7 | 186.0 | 186.2 | 186.2 | 187.1 |
| Procurement | 83.5 | 174.7 | 125.8 | 59.5 | 56.9 | 56.4 | 58.2 | 65.5 | 69.0 | 76.8 | 75.5 | 92.6 | 95.5 | 107.7 | 113.6 | 140.4 | 169.1 | 134.0 | 131.2 | 107.2 | 107.4 | 107.4 | 107.9 |
| RDT&E | 32.1 | 56.5 | 56.4 | 47.0 | 46.7 | 47.8 | 48.1 | 49.1 | 48.6 | 51.0 | 58.6 | 68.6 | 74.4 | 76.7 | 78.5 | 81.4 | 81.5 | 81.8 | 78.9 | 78.5 | 78.6 | 78.6 | 79.0 |
| Military Construction | 5.4 | 10.0 | 7.9 | 7.4 | 9.2 | 7.5 | 7.1 | 6.9 | 6.4 | 6.7 | 8.0 | 7.9 | 7.0 | 8.1 | 10.3 | 14.7 | 22.6 | 26.6 | 22.4 | 21.0 | 21.0 | 21.0 | 21.1 |
| Family Housing | 3.6 | 5.2 | 4.9 | 4.6 | 5.7 | 5.4 | 5.0 | 4.6 | 4.5 | 4.5 | 4.9 | 4.9 | 4.4 | 4.6 | 4.8 | 4.2 | 3.0 | 3.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Other | 1.3 | 8.4 | -0.6 | 4.7 | 3.3 | 8.0 | 0.1 | 5.7 | 6.8 | 4.0 | 3.1 | 3.4 | 8.5 | 7.3 | 2.4 | 1.7 | 10.2 | 1.1 | 1.9 | 52.0 | 49.9 | 49.0 | 48.2 |
| DoD | 332.7 | 517.3 | 452.9 | 348.4 | 340.3 | 338.9 | 335.3 | 356.8 | 364.7 | 391.0 | 415.3 | 516.6 | 541.6 | 539.2 | 578.3 | 632.6 | 691.5 | 670.4 | 667.7 | 587.9 | 587.1 | 586.8 | 589.2 |

Source: CSBA, July 2009. Based on OMB, DoD, and other data.
* Includes DoD funding in the American Recovery and Reinvestment Act of 2009 (signed Feb. 17, 2009) and the Supplemental Appropriation Act (signed Jun. 24, 2009).
** Derived using GDP deflator.
^ Figures include allowances of $50 B for future funding of Overseas Contingency Operations that is not yet allocated across the titles

TABLE 6. DEPARTMENT OF DEFENSE BUDGET BY SERVICE
(budget authority in billions of dollars)

| | | 1980 ~ | 1985 ~ | 1990 ~ | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009* | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Army** | Current $ | 34.4 | 74.3 | 78.5 | 63.3 | 64.5 | 64.4 | 64.0 | 68.4 | 73.2 | 77.0 | 85.9 | 121.1 | 153.1 | 152.8 | 174.9 | 218.5 | 250.1 | 224.7 | 223.408 |
| | FY 2010$ | 81.3 | 134.0 | 121.3 | 86.2 | 86.2 | 84.6 | 83.1 | 87.6 | 91.9 | 94.5 | 103.4 | 143.0 | 176.1 | 170.3 | 188.6 | 229.3 | 256.3 | 226.9 | 223.4 |
| | *% of total* | 24% | 26% | 27% | 25% | 25% | 25% | 25% | 25% | 25% | 25% | 25% | 28% | 33% | 31% | 33% | 36% | 37% | 34% | 33% |
| **Navy** | Current $ | 47.2 | 99.0 | 100.0 | 76.9 | 80.1 | 79.6 | 80.7 | 84.0 | 88.8 | 95.5 | 102.4 | 124.1 | 124.3 | 133.7 | 143.8 | 150.3 | 165.3 | 164.0 | 171.446 |
| | FY 2010$ | 111.7 | 178.6 | 154.5 | 104.8 | 107.1 | 104.5 | 104.8 | 107.7 | 111.5 | 117.2 | 123.3 | 146.4 | 142.9 | 149.0 | 155.0 | 157.6 | 169.4 | 165.7 | 171.4 |
| | *% of total* | 33% | 35% | 34% | 30% | 31% | 31% | 31% | 30% | 31% | 31% | 30% | 28% | 26% | 28% | 27% | 25% | 25% | 25% | 26% |
| **Air Force** | Current $ | 41.7 | 99.4 | 92.9 | 73.9 | 73.0 | 73.2 | 76.3 | 81.9 | 83.1 | 89.5 | 100.2 | 125.2 | 125.5 | 127.9 | 141.7 | 148.9 | 157.9 | 162.4 | 160.387 |
| | FY 2010$ | 98.7 | 179.3 | 143.6 | 100.7 | 97.6 | 96.2 | 99.0 | 105.0 | 104.3 | 109.9 | 120.7 | 147.8 | 144.4 | 142.6 | 152.7 | 156.3 | 161.8 | 164.0 | 160.4 |
| | *% of total* | 29% | 35% | 32% | 29% | 29% | 28% | 30% | 29% | 29% | 29% | 29% | 29% | 27% | 26% | 26% | 25% | 23% | 24% | 24% |
| **Defense-wide** | Current $ | 19.3 | 14.1 | 21.7 | 41.6 | 37.0 | 40.8 | 37.6 | 44.3 | 45.524 | 47.9 | 57.1 | 67.4 | 68.1 | 71.5 | 76.1 | 84.5 | 100.2 | 116.8 | 112.69 |
| | FY 2010$ | 45.6 | 25.4 | 33.5 | 56.7 | 49.4 | 53.6 | 48.8 | 56.7 | 57.2 | 58.7 | 68.8 | 79.5 | 78.3 | 79.7 | 82.0 | 88.7 | 102.7 | 117.9 | 112.7 |
| | *% of total* | 14% | 5% | 7% | 16% | 15% | 16% | 15% | 16% | 16% | 15% | 17% | 15% | 14% | 15% | 14% | 14% | 15% | 17% | 17% |

Source: CSBA, July 2009. Based on DoD data. Totals may differ from OMB figures due to differences in scoring.

* Includes DoD funding in the American Recovery and Reinvestment Act of 2009 (signed Feb. 17, 2009) and the Supplemental Appropriation Act (signed Jun. 24, 2009). Author's estimate for allocation of supplemental funding to Service accounts.

TABLE 7. NATIONAL DEFENSE, FEDERAL SPENDING AND THE GROSS DOMESTIC PRODUCT FY 1980–FY 2014
(outlays in billions of current dollars)

| Fiscal Year | National Defense Outlays (050) | Federal Outlays | 050 as % of Federal Outlays | GDP | 050 as % of GDP |
|---|---|---|---|---|---|
| 1980 | 134.0 | 590.9 | 22.7% | 2,725.4 | 4.9% |
| 1981 | 157.5 | 678.2 | 23.2% | 3,058.6 | 5.1% |
| 1982 | 185.3 | 745.7 | 24.8% | 3,225.5 | 5.7% |
| 1983 | 209.9 | 808.4 | 26.0% | 3,442.7 | 6.1% |
| 1984 | 227.4 | 851.9 | 26.7% | 3,846.7 | 5.9% |
| 1985 | 252.7 | 946.4 | 26.7% | 4,148.9 | 6.1% |
| 1986 | 273.4 | 990.4 | 27.6% | 4,406.7 | 6.2% |
| 1987 | 282.0 | 1,004.1 | 28.1% | 4,654.4 | 6.1% |
| 1988 | 290.4 | 1,064.5 | 27.3% | 5,011.9 | 5.8% |
| 1989 | 303.6 | 1,143.8 | 26.5% | 5,401.7 | 5.6% |
| 1990 | 299.3 | 1,253.1 | 23.9% | 5,737.0 | 5.2% |
| 1991 | 273.3 | 1,324.3 | 20.6% | 5,934.2 | 4.6% |
| 1992 | 298.4 | 1,381.6 | 21.6% | 6,240.6 | 4.8% |
| 1993 | 291.1 | 1,409.5 | 20.7% | 6,578.4 | 4.4% |
| 1994 | 281.6 | 1,461.9 | 19.3% | 6,964.2 | 4.0% |
| 1995 | 272.1 | 1,515.9 | 17.9% | 7,325.1 | 3.7% |
| 1996 | 265.8 | 1,560.6 | 17.0% | 7,697.4 | 3.5% |
| 1997 | 270.5 | 1,601.3 | 16.9% | 8,186.6 | 3.3% |
| 1998 | 268.2 | 1,652.7 | 16.2% | 8,626.3 | 3.1% |
| 1999 | 274.8 | 1,702.0 | 16.1% | 9,127.0 | 3.0% |
| 2000 | 294.4 | 1,789.2 | 16.5% | 9,708.4 | 3.0% |
| 2001 | 304.8 | 1,863.2 | 16.4% | 10,059.8 | 3.0% |
| 2002 | 348.5 | 2,011.2 | 17.3% | 10,378.4 | 3.4% |
| 2003 | 404.8 | 2,160.1 | 18.7% | 10,803.7 | 3.7% |
| 2004 | 455.8 | 2,293.0 | 19.9% | 11,503.7 | 4.0% |
| 2005 | 495.3 | 2,472.2 | 20.0% | 12,234.9 | 4.0% |
| 2006 | 521.8 | 2,655.4 | 19.7% | 13,009.9 | 4.0% |
| 2007 | 551.3 | 2,728.9 | 20.2% | 13,642.3 | 4.0% |
| 2008 | 616.1 | 2,982.9 | 20.7% | 14,222.3 | 4.3% |
| 2009* | 690.3 | 3,997.8 | 17.3% | 14,240.2 | 4.8% |
| 2010 | 712.9 | 3,591.1 | 19.9% | 14,728.8 | 4.8% |
| 2011 | 658.7 | 3,614.8 | 18.2% | 15,499.8 | 4.2% |
| 2012 | 634.1 | 3,632.7 | 17.5% | 16,470.4 | 3.8% |
| 2013 | 635.8 | 3,817.5 | 16.7% | 17,497.8 | 3.6% |
| 2014 | 644.8 | 4,016.0 | 16.1% | 18,386.4 | 3.5% |

Source: CSBA, July 2009. Based on OMB and DoD data.

* Includes DoD funding in the American Recovery and Reinvestment Act of 2009 (signed Feb. 17, 2009) and the Supplemental Appropriation Act (signed Jun. 24, 2009).

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