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DEFENSE ACQUISITIONS

Termination Costs Are Generally Not a Compelling Reason to Continue Programs or Contracts That Otherwise Warrant Ending





Highlights of [GAO-08-379](#), a report to congressional committees

Why GAO Did This Study

The nation's long-term fiscal imbalances will likely make DOD's \$1.6 trillion planned investment in new weapon systems unsustainable. Thus, it is critical that DOD retains the flexibility to end programs and contracts when necessary and appropriate.

Although the federal government generally has the legal right to terminate contracts for convenience, defense stakeholders have sometimes expressed concerns that it will cost more to terminate a contract than to complete it. To address this perception, GAO examined (1) how expected contract termination costs and other factors affect DOD decisions on whether to end programs and contracts; (2) the circumstances under which it would cost more to terminate a contract for convenience than to complete it; and (3) the options DOD has for retaining value or reducing costs, when DOD ends programs or contracts. To do this, GAO examined DOD data on terminated contracts over \$100 million; reviewed laws, regulations, and guidance; and met with key DOD officials.

What GAO Recommends

GAO recommends that DOD review, and as needed amend, guidance on terminations across the military services and DOD agencies to ensure that termination guidance identifies the conditions under which it is appropriate to end programs or contracts, and provides knowledge needed to use terminations as an investment portfolio tool. DOD agreed.

To view the full product, including the scope and methodology, click on [GAO-08-379](#). For more information, contact Cristina Chaplain at (202) 512-4841 or ChaplainC@gao.gov.

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Termination Costs Are Generally Not a Compelling Reason to Continue Programs or Contracts That Otherwise Warrant Ending

What GAO Found

Contract termination costs were generally not a major factor in Department of Defense (DOD) decisions to end programs or contracts for the weapon systems GAO reviewed. GAO found that these program cancellations were driven by factors such as changes in warfighter need and budgetary constraints. In the contract termination decisions GAO reviewed, DOD considered termination costs, but they were generally not as significant as other factors, such as contract cost growth.

For the contracts reviewed, GAO found that it did not cost more to terminate than to complete them. When the government terminates a contract for convenience, it must compensate the contractor for the incurred costs on the completed work, a fee or profit on that work, and the termination costs. Federal regulations place various limits on this compensation for both cost-reimbursement and fixed-price contracts. GAO found eight fully terminated contracts of weapon systems that were over \$100 million in value, terminated after 1995, and for which data were available. Of these, none cost more to terminate than to complete.

When a program or contract ends, DOD can retain some value from the work completed. For example, DOD can end the work immediately and transfer materials or technology to other efforts. Alternatively, DOD can modify the scope of a contract and complete a limited portion of the original work.

GAO's review of DOD's past experience with terminations highlights important lessons for DOD in making decisions to cancel individual programs as well as in managing its broader investment portfolio. For example, when considering cancellation of individual programs, contract termination costs are generally not a compelling reason to continue programs or contracts that otherwise warrant ending. Moreover, while incurred or "sunk" costs in programs being considered for termination may be substantial, they must be paid regardless of whether or not a contract is terminated. Therefore, the decision to terminate a contract or cancel a program should not be driven by sunk costs.

From an investment portfolio perspective, terminations can be a valuable tool in responding to long-term fiscal imbalances as well as unexpected events that could constrain spending. More specifically, they can be used to create more trade space in the over \$850 billion that still remains in outstanding commitments in DOD's planned \$1.6 trillion investment in weapons programs. However, to make the most effective use of this tool, decision-makers need to be able to anticipate and plan for possible terminations and have a sound understanding of costs, benefits, and legal requirements. As a result, guidance on terminations developed by the military services and other DOD entities should be clear, consistent, proactive, and detailed enough to provide the knowledge needed to use terminations as an investment portfolio tool.

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Abbreviations

CPIT	Contract Price of Items Terminated
DCMA	Defense Contract Management Agency
DOD	Department of Defense
FAR	Federal Acquisition Regulation
LCS	Littoral Combat Ship
NLOS-C	Non-Line-of-Sight Cannon
OSD	Office of the Secretary of Defense
TSSAM	Tri-Service Standoff Attack Missile

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Congressional Committees

In 2007, Department of Defense (DOD) planned investment in new weapon systems totaled \$1.6 trillion. Of this, over \$850 billion remains in outstanding commitments. Prior GAO work has shown that the nation's long term fiscal imbalances, as well as DOD's tendency to start more programs than current and likely future resources can support, will place pressure on the agency's ability to carry out planned investments. Given this, as well as continual cost overruns and performance problems among some weapon programs, it is critical that DOD retains the flexibility to cancel programs and terminate contracts when necessary. Program cancellation decisions are related to but separate from contract termination decisions. When canceling a program, DOD may complete a contract, or it may terminate a contract if it is in the interests of the government. While DOD terminates hundreds of contracts for convenience in part or in whole each year, fewer than a dozen contracts terminated since 1995 were worth more than \$100 million. Although the government generally has the legal right to terminate contracts for its convenience, there are costs associated with doing so. In recent years, defense stakeholders have sometimes expressed concerns that it will cost more to terminate a contract than to complete it. In order to address this perception and better understand the relationship between DOD's decision making and contract termination costs, this report will examine (1) how expected contract termination costs and other factors affect DOD decisions on whether to cancel programs and terminate contracts, (2) the circumstances under which it would cost more to terminate a contract for convenience than to complete it, and (3) the options DOD has for retaining value or reducing costs when programs are canceled or contracts are terminated.

We prepared this report under the authority of the Comptroller General of the United States to conduct evaluations on his own initiative. We conducted our work at the Department of Defense, including the Office of the Secretary of Defense (OSD), Army, Air Force, Department of the Navy, and Defense Contract Management Agency (DCMA). To understand program acquisitions, related contracting practices, and the cancellation of programs and termination of contracts, we reviewed relevant laws, regulations, and guidance related to program management and contract terminations for convenience. We reviewed data on terminated contracts

from the DCMA Terminations Center database, which has data on programs for which DCMA has handled the termination. For the purposes of this review, we reviewed all fully terminated contracts in the DCMA database—both fixed-price and cost-reimbursement—of weapons systems that were over \$100 million in value and were terminated after 1995. In addition, we examined a termination of a weapon system contract that had been handled by its program office and was not in the DCMA database—the Comanche helicopter. This was the only weapon system contract terminated after 1995 for over \$100 million that DOD officials were able to identify that was not terminated by DCMA.¹ We met with officials at DOD and at the Army, Air Force, and the Department of the Navy to discuss programs that had been canceled and contracts that had been terminated. In addition, we reviewed programs and/or contracts that had been publicly discussed for cancellation and/or termination, for which data were readily available, but were not canceled or terminated, such as the C-130J Air Force cargo airplane program.

We conducted our review from October 2006 to March 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

Termination costs for the contracts we reviewed were generally not as significant as other factors in making program cancellation and contract termination decisions. Rather, the weapon systems we reviewed tended to be canceled when they no longer met warfighter need or when they did not fit within budget constraints. For example, the Crusader howitzer was canceled because the warfighter no longer needed a 60-ton armored cannon to combat Soviet forces on the battlefields of Europe. Termination costs were also not cited by DOD officials as a major factor in contract termination decisions. Instead, contracts were terminated because the program was canceled or because the contractor experienced cost growth. Of the programs and contracts that we reviewed, anticipated termination

¹ At DOD, when a procuring activity decides to terminate a contract for convenience, although it is not required to do so, it may employ the assistance of the termination contracting officers at the DCMA Terminations Center. In the case of the Comanche helicopter, the termination was handled by the Army.

costs were only significant in reversing the decision to terminate the C-130J cargo plane contract. The decision to terminate this contract was made for budgetary reasons; however, higher than anticipated termination cost estimates were a key factor in reversing the decision.

There are limited circumstances in which it could cost the government more to terminate a contract than to complete it. The Federal Acquisition Regulation (FAR) specifies the categories of costs a contractor may be entitled to when the government terminates a contract for convenience. These costs include incurred costs, a reasonable fee/profit, and termination costs such as disposing of inventories and negotiating with subcontractors. Provisions in the FAR limit the total settlement amount (the total amount paid on the terminated contract) paid to the contractor. For example, the FAR generally limits the government's liability under a fixed-price contract to the contract price plus termination costs.² Therefore, it would only cost more to terminate a fixed-price contract than to complete it if the termination costs were greater than the cost of the remaining work under the contract. The government's liability in the event of a contract termination is also limited under cost-reimbursable contracts. Of the eight contracts we reviewed, we did not find any cases in which the termination settlement exceeded the estimated contract price.

When a line of work ends by either a program cancellation or a contract termination, DOD may be able to recover useful items, information, or technology that can reduce costs on other DOD programs. More specifically, when a contract is nearly complete, it may be in the government's best interest to complete the contract, rather than terminate it. For example, on the canceled E-10A program, Air Force officials decided to complete the contract for the aircraft, because the program only had to make one additional payment to take delivery of the plane. When a contract is terminated, DOD can take steps to retain value by transferring technology, information, and property to other efforts. For example, when the Army's Comanche helicopter program was canceled, the Army transferred flight control system technology and 70,000 line items of property to other DOD programs. Finally, DOD can also continue a limited amount of work on a line item of a terminated contract if this will result in technology or items in production that could be used in the future. When the Littoral Combat Ship 3 (LCS-3) was terminated, for

² FAR 49.207 and 52.249-2(f).

example, the Navy decided to continue work on the gears and gas turbines for use on other ships.

We are recommending that DOD review, and as needed amend, guidance on terminations across the military services and DOD entities to ensure that termination guidance consistently identifies the conditions under which it is appropriate to end programs or contracts, and provides knowledge needed to use terminations as an investment portfolio tool.

DOD concurred with our recommendation to review, and amend as needed, guidance on contract terminations for convenience across the military services and DOD. This is a positive step toward using terminations as an investment portfolio tool.

Background

Over the life cycle of a weapon system, DOD typically executes several contracts with a prime contractor for the program. These contracts cover development, production, or maintenance efforts. Although a program and its contracts are related, they are separate, distinct efforts that can end separately. For the purposes of this review, we refer to the end of a program as a cancellation, and the end of a contract as a termination. For example, DOD may cancel a program but continue a contract related to that program. Alternatively, DOD can terminate a contract but continue the program.

Since most federal contracts are mutually binding legal agreements that are governed by the FAR, they must be terminated by proper procedures. These procedures include the issuance of a termination notice. Programs, in comparison, are institutionally directed and funded efforts and not legal agreements.³ Based upon our audit work, program cancellations may be done through an official program document such as an acquisition decision memorandum. However, documenting cancellations with a memorandum is not a DOD requirement and DOD does not have specific guidance on how a program is to be officially ended.

The programs we reviewed used two broad categories of contracts: cost-reimbursement and fixed-price. In cost-reimbursement contracts, the

³ Programs are efforts to provide a new, improved, or continuing material, weapon or information system, or service capability in response to an approved need rather than a legal agreement. DOD Directive 5000.1.

contractor is reimbursed for allowable⁴ costs incurred, regardless of whether the anticipated work is completed. As a result, the exact final cost of a cost-reimbursement contract may often not be known at the start of a contract. In such cases, cost-reimbursement contracts will have an estimated total cost for purposes of establishing a not-to-exceed dollar value, which may be exceeded only with the approval of the contracting officer. Contractors with cost-reimbursement contracts may also be provided incentives, generally referred to as fees, through various metrics that assess the contractor's performance and reward that performance accordingly.⁵ For fixed-price contracts, the government agrees to pay the contractor a prenegotiated price for a product or service and, therefore, the price is typically known at award. Contractors with fixed-price contracts can also be provided additional incentives based upon performance metrics. For DOD weapon systems, most development is typically done with cost-reimbursement contracts, and production can be done with fixed-price contracts.

Generally, parties' obligations under contracts end when the required performance is completed, that is, when the government has accepted the supplies or services and paid the contractor in full. However, if a contractor has not performed as agreed, the government may choose to end its obligations by terminating the contract for default. In other cases, however, even when the contractor is performing acceptably, it may be in the interest of the government to end its contractual obligations before the contract is completed. To acknowledge the unique position of the federal government in such circumstances, a legal right to terminate procurement contracts for the government's convenience has developed. This right gives the government—e.g., DOD and other federal agencies—the option to terminate a contract for convenience when changed circumstances, such as the end of a war, mean termination is in the government's interests.⁶ If the government did not have this right, in order to prematurely end a contract, the government might breach its contract and

⁴ A cost is only allowable when the cost complies with all of the following requirements: that the cost is reasonable, allocable, it meets cost accounting standards (if applicable), the terms of the contract, and applicable FAR provisions. FAR 31.201-2.

⁵ For information on the use of award fees, see GAO reports [GAO-07-58 NASA Procurement: Use of Award Fees for Achieving Program Outcomes Should Be Improved](#) (January 17, 2007) and [GAO-06-66 Defense Acquisitions: DOD Has Paid Billions in Award and Incentive Fees Regardless of Acquisition Outcomes](#) (December 19, 2005).

⁶ A termination for convenience only has to be in the government's interest. See generally, FAR 52.249-2; 52.249-6.

potentially pay damages to the contractor, which would result in unnecessary expenditure of government funds and expenses for the taxpayer. For example, DOD officials told us that when the Gulf War ended, DOD no longer needed large quantities of prepackaged, shelf-stable meals and thus terminated those contracts for convenience.

As mentioned earlier, when a contractor is unable to meet the terms and conditions of the contract, the government may terminate the contract for default. DOD officials, in reference to contracts for weapon systems, told us that while a termination for default might be considered, the standard for proving default is so high that instead, terminations for convenience are often done.⁷ The Navy's A-12 stealth attack aircraft program illustrates the difficulty of pursuing a termination for default. In 1991, the Navy terminated the A-12 contract for default. In doing so, the Navy contended that the contractors were behind schedule and unable to deliver an aircraft that met the contract requirements. The contractors challenged the termination, resulting in 16 years of litigation, which was still ongoing at the time we did our work. The contractor contended that a termination for default is only permitted when it is absolutely impossible for the contractor to complete the work or when the contractor completely abandons the work. In this case, a termination for default would require the contractors to repay over a billion dollars in progress payments, as opposed to a termination for convenience in which the contractor would be eligible to recover its incurred costs.

The FAR requires that a termination for convenience clause be included in most federal procurement contracts⁸, granting the government the right to terminate the contract prior to completion.⁹ In a complete termination for convenience, the contract ends on the date specified in the government's notice of termination. The FAR also gives the government the right to partially terminate a contract for convenience, meaning the government can choose to terminate only a portion of the contract. In contrast, the

⁷ Since default terminations involve serious consequences for a contractor, they are considered drastic sanctions that should be imposed or sustained only for good grounds and on solid evidence. The government bears the burden of proving the termination was justified. For example, see *Lisbon Contractors, Inc. v. U.S.*, 828 F.2d 759, 765 (Fed. Cir. 1987).

⁸ FAR subpart 49.501.

⁹ For cost-reimbursement contracts, a single clause under FAR 52.249-6 is used for both default and convenience terminations.

contractor is not given a right to terminate for convenience, and this type of contractual right is rare outside the world of federal government contracting.

The process for terminating a contract for convenience is specified in the FAR.¹⁰ When the government terminates a contract for convenience, the contracting officer must send a written termination notice to the contractor indicating whether the termination is for convenience or default. The written notice may also contain, special instructions, and in some cases personnel mitigation efforts.¹¹ Upon receiving the notice of termination, the contractor is required to stop all work immediately under the terminated portion of the contract and terminate all related subcontracts. When inventories exist, the contractor must, as directed by the contracting officer, deliver to the government a “termination inventory” that lists materials produced or acquired under the contract and government-furnished property¹² and account for all inventory related to the terminated portion of the contract by completing termination inventory schedules, generally within 120 days of the effective date of the termination.¹³ The contractor must dispose of all remaining property, as agreed with the government.¹⁴ The contractor also begins the process of settling with its subcontractors.¹⁵

The contractor has 1 year from the effective date of the termination to submit a settlement proposal to the contracting officer, unless the period is extended by the contracting officer handling the termination.¹⁶ The amount of the settlement proposal reflects all of the costs for which the contractor believes it is entitled to be reimbursed, including incurred costs for work performed, termination costs, plus in some cases, a reasonable profit or fee on its completed work, minus all payments made to date and

¹⁰ FAR Part 49.

¹¹ FAR 49.102(a).

¹² FAR 49.206-3. For commercial-item contracts, the government has no claim to any work in progress.

¹³ FAR 49.303-2.

¹⁴ FAR 49.104(i).

¹⁵ FAR 49.104(g).

¹⁶ FAR 49.206-1(a) and 49.303-1.

the value of the property the contractor retained upon termination.¹⁷ When the contracting officer receives the contractor's settlement proposal, he or she can choose to pay the proposed amount or negotiate with the contractor.¹⁸ If the contractor does not submit a settlement proposal within 1 year from the effective termination date, or if the contracting officer cannot reach agreement with the contractor, the contracting officer may unilaterally decide on the amount to which the contractor is entitled, applying the standards that are set forth in the FAR. The FAR also provides the contractor the right to appeal¹⁹ the termination settlement to the applicable Board of Contract Appeals²⁰ or to the United States Court of Federal Claims, if the contractor has met its deadline for submission of the settlement proposal.²¹

At DOD, when a procuring activity decides to terminate a contract for convenience, although it is not required to do so, it may employ the assistance of the termination contracting officers at the DCMA Terminations Center. The Terminations Center employs contracting officers who specialize in terminations for convenience and whose only mission is to settle contracts terminated for the convenience of the government. In fiscal year 2006, the Terminations Center data show that DCMA processed about 600 terminations.²² Figure 1 shows that only 10 percent of these terminated contracts involved terminated items valued at more than \$1 million.

¹⁷ FAR 52.249-2 (fixed-price contracts) and FAR 52.249-6 (cost-reimbursement contracts).

¹⁸ FAR 49.105.

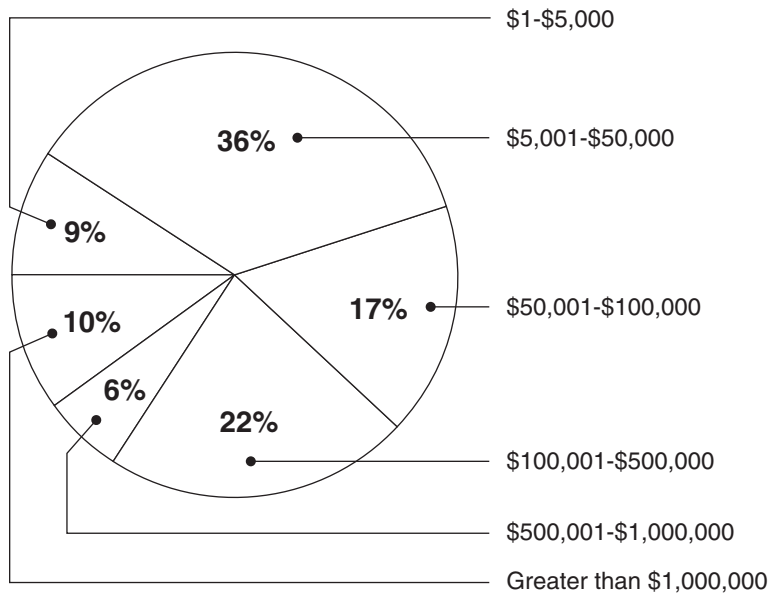
¹⁹ FAR 49.109-7(f).

²⁰ Appeals for contracts with the Department of Defense are filed with the Armed Services Board of Contract Appeals.

²¹ FAR 52.249-2(j) and 52.249-6(j).

²² Comparable data for civilian agencies of contracts terminated for convenience are not readily available.

Figure 1: Contracts Terminated for Convenience Processed by DCMA in FY 2006 by Contract Price of Items Terminated



Source: Data from the DCMA Terminations Center.

Note: DCMA's Contract Price of Items Terminated (CPIT) is the value of the terminated portions of the contract. Under a complete termination, CPIT would equal the contract price. Under a partial termination, CPIT would equal only the value of the portion of the contract that was terminated.

Contract Termination Costs Generally Do Not Drive Program Cancellation or Contract Termination Decisions

When DOD decides to cancel a program or terminate a contract, termination costs are generally not a major factor in these decisions. DOD officials told us that the weapon systems we reviewed were canceled for two primary reasons: when they no longer met warfighter need or when they did not fit within budget constraints. While programs may have experienced cost growth, schedule slippages, poor performance, and changing requirements, cancellations were generally driven by warfighter need and budgetary constraints. In contrast, DOD officials did not cite contract termination costs as a major factor in program cancellation decisions. In addition, while termination costs were considered, DOD officials did not mention them as a major factor in contract termination decisions. The one exception that we found was the C-130J cargo plane in which higher than anticipated termination costs were a key factor in reversing the decision.

Factors That Influence Program Cancellation Decisions

Crusader (Army)

Prime contractor: United Defense Limited Partnership
Program started: 1987
Last contract awarded: 1995
Contract price: \$1.87 billion
Contract terminated: 2002
Total settlement: \$1.66 billion



Source: United Defense Limited Partnership.

The Crusader—an automated, next-generation field artillery system—was designed to have greater firepower, range, and mobility than the existing self-propelled howitzer. In 2000, the Army changed its requirements to make the Crusader lighter and more deployable by air. However, the program was unable to achieve lower weight requirements within cost and schedule limitations. Ultimately, the Crusader was canceled because the Army needed a more mobile and deployable force as opposed to a 60-ton armored cannon designed to combat Soviet forces on the battlefields of Europe. The Army was able to transition nearly 26,000 inventory line items—valued at more than \$150 million—from the Crusader to create the Non-Line-of-Sight Cannon program as well as an additional 9,800 inventory line items—valued at \$25.8 million—to other DOD programs.

Among the programs that we reviewed, contract termination costs did not drive program cancellation decisions; rather, DOD canceled programs when they no longer met warfighter need or when they did not fit within budgetary constraints. For example, according to a program official, the Crusader—an automated, self-propelled howitzer—was canceled because the warfighter no longer needed a 60-ton armored cannon to combat Soviet forces on the battlefields of Europe. Similarly, Army officials determined that the operating environment faced by the warfighter had changed and funds for the Comanche helicopter would be better spent on other aviation priorities. Furthermore, the Comanche program had experienced schedule slips and cost overruns. When interviewed about the Comanche cancellation, an Army official told us that the program's costs could no longer be justified.

Even if a program can deliver a useful capability, officials told us that DOD may still decide to cancel the program to meet projected budgetary constraints. For example, although Air Force officials stated that there is still a need for the E-10A, an air-to-air and air-to-ground radar platform, DOD canceled the program to match expenditures against future budgets. Army officials stated that in recent years the Army has also canceled programs for budgetary reasons. Army officials told us that in the fiscal year 2008 budget request, the Army is proposing to cancel 10 programs in order to meet the budget shortfall. DOD officials confirmed that each service has a process to assess its needs and resources over a 6-year time frame, but only the Army has a formal process as part of its annual budget cycle to cancel the least needed programs to cover a budget shortfall.

Factors That Influence Contract Termination Decisions

C-130J (Air Force)

Prime contractor: Lockheed Martin Aeronautics Company–Marietta
Program started: 1996
Contract began: 1996
Total program costs: \$8.07 billion (as of December 2006)



Source: C-130J Program Office.

The C-130J is the latest addition to DOD's fleet of C-130 aircraft. The C-130J climbs faster and higher, flies farther at a higher cruise speed, and takes off and lands in a shorter distance than older models and is designed primarily for the transport of cargo and personnel within an area of armed conflict. The contract was considered for termination due to budgetary reasons, but ultimately the Air Force decided not to terminate the contract because estimated termination costs were higher than expected.

Contract termination costs generally did not drive contract termination decisions; rather, officials told us that the contracts were terminated because of cost growth or because the program that the contract supported was canceled. For example, the Navy canceled the third and fourth Littoral Combat Ships (LCS-3 and LCS-4) following a series of cost overruns and schedule delays on LCS-1 and LCS-2 as well as an inability to reach an agreement with the prime contractors to modify their existing cost-reimbursement contracts to fixed-price contracts.²³ Navy officials stated that termination costs were considered before the termination decision was made, but the estimates of these costs were not significant enough to affect the decision. Both the Crusader and the Comanche contracts were terminated because their respective programs were canceled. In contrast, termination costs did play a role in the reversal of the decision to terminate the C-130J cargo plane. Estimated termination costs for the C-130J were high enough to reverse the initial decision, though these estimates were still less than the contract price. Air Force officials estimated that termination costs ranged from \$450 million to \$1.7 billion. The Department of Defense Inspector General reported that this estimate may have been overstated. Nevertheless, the termination cost estimate that the officials had at the time of their decision played a key role in continuing the C-130J contract.

Terminating a Contract Generally Costs Less than Completing It

It generally costs less to terminate a contract than to complete it. When the government terminates a contract for convenience, it must compensate the contractor in the form of a termination settlement, which includes the costs of work performed and termination costs. Settlements are typically less than the cost of completing a contract, although in limited circumstances it could cost more to terminate than to complete a contract. And while we found no examples in which it cost more to

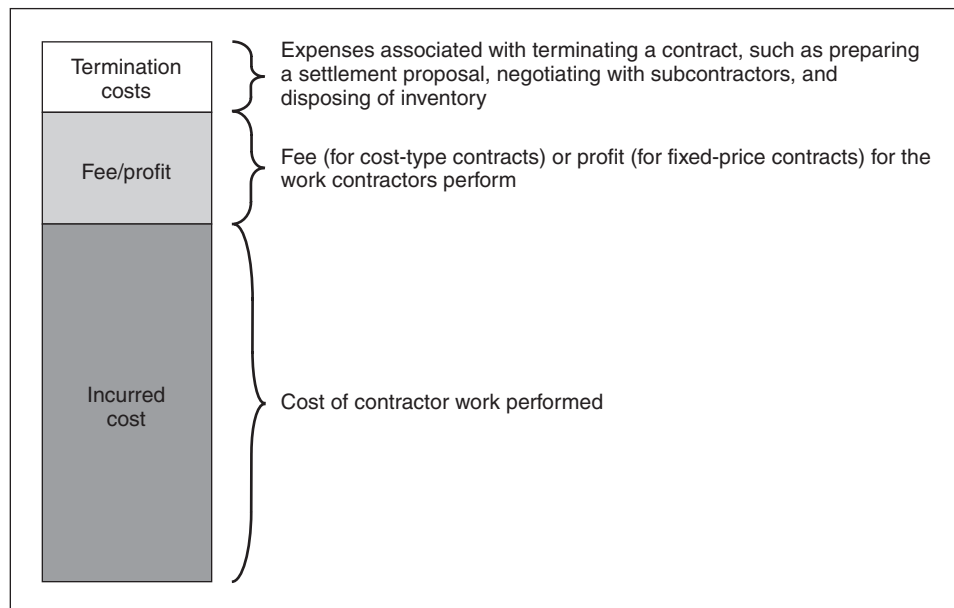
²³ The terminated LCS-3 and LCS-4 ships were partial terminations, as they were line items under the same contracts as LCS-1 and LCS-2, respectively.

terminate than to complete a contract, the timing of a termination as well as contract specific factors may increase the settlement amount.

A Termination Settlement Compensates the Contractor for Work Performed and Termination Costs

When the government decides to terminate a contract for convenience, it must compensate the contractor fairly—in the form of a termination settlement (hereafter referred to as a settlement)—for the work it has performed.²⁴ Settlements generally include three components: incurred costs for the work performed, fee or profit on that work, and termination costs.²⁵ (See fig. 2.) Settlements only include costs related to a terminated contract and therefore will not reflect additional costs that may be a result of a termination, but outside the scope of the contract, such as a larger community effect—for example, a contractor going out of business.

Figure 2: Costs Included in the Total Settlement



Source: GAO analysis.

²⁴ FAR 49.201.

²⁵ For the purposes of this report, fee is for cost-reimbursement contracts whereas profit is for fixed-price contracts.

Tri-Service Standoff Attack Missile
(Air Force)

Prime contractor: Northrop Grumman Corp.
Program started: 1986
Contract began: 1986
Contract price: \$2,838,312,523
Contract terminated: 1995
Total settlement: \$2,474,157,972

(Photo not available)

The Tri-Service Standoff Attack Missile (TSSAM) program was an effort to develop and acquire a conventional, medium-range cruise missile with stealth capability. TSSAM was expected to be a low-cost cruise missile able to deliver several different munitions at a standoff range of over 100 nautical miles. It was a tri-service development program with the Air Force as the lead service. The program was marked by significant technical problems, cost growth, and schedule delays. In 1994, DOD restructured the TSSAM program after a series of flight test failures. The Secretary of Defense directed the program's cancellation because these technical problems and escalating costs persisted.

The contractor's incurred costs include direct costs such as materials and labor, as well as indirect costs such as overhead.²⁶ Factors that affect incurred costs include the amount of work performed when the contract is terminated and the amount of materials purchased. Contractors may choose to retain some of the materials they purchased for a terminated contract and would then have to credit the government for the value of the materials, thus reducing the total settlement amount.

In addition to incurred costs, contractors generally get paid a fee (for cost-reimbursement contracts) or profit (for fixed-price contracts) for the work they performed.²⁷ Fee/profit under a termination only applies to work the contractor performed and not to any anticipated fee or profit for the terminated portions of the contract. Moreover, for a fixed-price contract, if the contractor spends more than the contract price, then the government is generally only obligated to pay the contractor the contract price of the work completed. For example, when the government terminated a fixed-price contract for the Tri-Service Standoff Attack Missile (TSSAM), the contractor claimed that it had spent about \$3 billion on work that was priced at \$2.47 billion in the contract. Because the government stated that the contractor would have been at a loss due to being over budget, the contractor was not entitled to reimbursement for all of its expenditures and lost more than \$559 million.

The government also is required to pay contractors for termination costs—the expenses associated with terminating a contract, such as preparing a settlement proposal, negotiating with subcontractors, and disposing of inventory.²⁸ According to a DCMA official, termination costs are not

²⁶ For the purposes of this report, incurred costs are all allowable costs under the contract defined under FAR §31.2 except for settlement expenses as described in FAR §31.205-42(g). Incurred costs would include the contractor's allowable costs prior to termination as well as reasonable costs continuing after termination.

²⁷ Fixed-price contracts are not generally divided into incurred costs and profit. When a fixed-price contract is terminated, it is treated in some respects like a cost-reimbursement contract. For example, the contractor has to determine its incurred costs under the terminated contract and determine what, if any, profit it earned on its incurred costs. The contractor would not typically have to do this under a fixed-price contract that had been completed.

²⁸ We use the term termination costs rather than settlement expenses to avoid confusion between termination settlements in general and the cost of settling a termination (i.e., termination costs). Our definition of termination costs is narrower than the FAR definition because we only consider those costs that are unique to a termination under FAR 31.205-42 (g).

associated with performing the work under the contract, but rather for ending the contract. Contractors are not entitled to reimbursement for legal costs associated with challenging a termination for convenience in court, although a contractor may be reimbursed for legal costs arising from subcontractor suits.²⁹

A settlement only addresses the government's obligation under a terminated contract. According to DOD officials, there may be additional costs associated with a termination for convenience. However, these costs are not included in the terminated contract's settlement. Higher operations and maintenance costs for legacy systems that would have been replaced, the costs of awarding a new contract to replace a terminated contract, and economic impacts on communities where terminated work was to be performed are examples of costs that are outside the scope of a settlement, but could potentially result from a termination for convenience.

When a termination is actually settled, the amount paid to the contractor may be less than the settlement amount. A settlement is the total amount the government must pay under a termination, which may be viewed as the gross settlement. However, the government may have paid for some of the work prior to termination. In such cases, the government would only have to pay the net settlement amount, i.e., the gross settlement amount less any payments made to date. For example, incurred costs for the terminated Comanche contract were over \$2.3 billion. However, the government had made progress payments over the life of the Comanche contract, so the outstanding balance due at the time of termination was only a fraction of the incurred costs. To pay such outstanding balances, DOD uses the funding already available on the contract.

Comanche (Army)

Prime contractor: Boeing Sikorsky
Program started: 1983
Last contract awarded: 2000
Contract price: \$6.59 billion
Contract terminated: 2004
Total settlement: \$2.74 billion



Source: Boeing Sikorsky.

The Comanche was the Army's next-generation armed reconnaissance helicopter, which would have supplied a system capable of operating in adverse weather conditions across a wide spectrum of threat environments. It was expected to provide lower operating costs as well as improved speed, agility, reliability, and maintainability, and was to be harder to detect than existing helicopters. The Comanche program experienced substantial cost increases, schedule delays, and performance shortfalls. The Army determined that the operating environment had changed and that funds would be better spent on other aviation priorities. The Comanche was estimated to cost \$40 million per aircraft whereas both the Kiowa Helicopter and the Armed Reconnaissance Helicopter were estimated to cost \$10 million each. When the Army terminated the program, it transferred the Comanche's fly-by-wire flight control system technology and 70,000 line items of property to other Army aviation efforts.

²⁹ The costs of preparing a settlement proposal by an attorney are allowable termination costs for which the contractor would be reimbursed.

Settlements Are Generally Less than the Cost of Completing the Contract

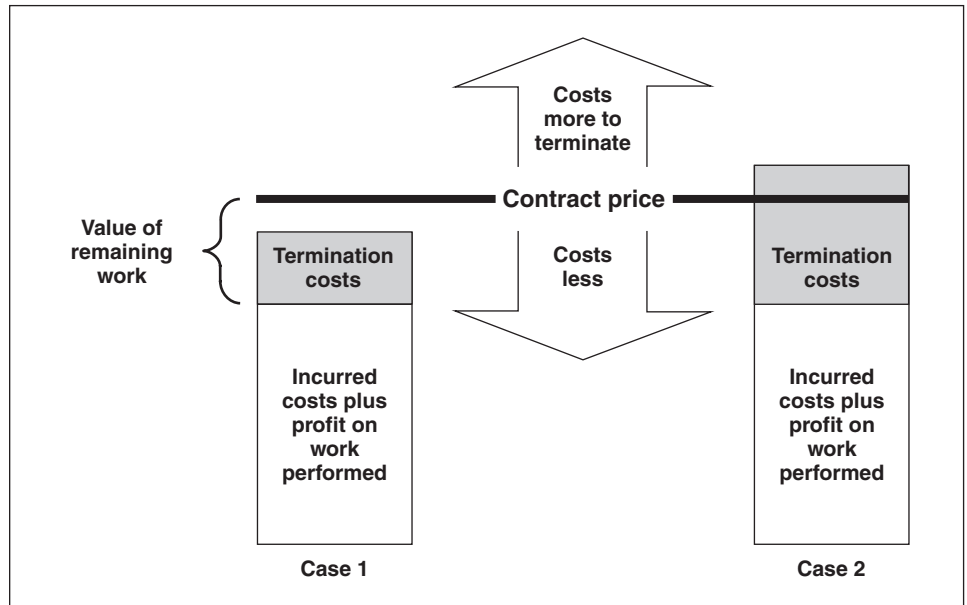
In general, it will not cost more to terminate than to complete a contract, whether it is a fixed-price contract or a cost-reimbursement contract. The FAR places limits on the settlement amount in the event of a termination for both types of contracts, although the limits are different depending on the contract type.

Fixed-Price Contracts: It will generally not cost more to terminate than to complete a fixed-price contract unless it is terminated late in its life. Under the FAR, for fixed-price contracts, incurred costs plus profit generally cannot exceed the contract price.³⁰ As long as termination costs are allowable, there is no specific dollar limit on them. Thus, termination costs, when added to incurred costs and profit, could push the settlement amount above the contract price, depending on the value of the remaining work. As shown in figure 3 (case 1), if termination costs are less than the value of the remaining work, it would cost less to terminate the contract than to complete it. If termination costs are greater than the value of the remaining work, then it would cost more to terminate the contract than to complete it, as shown in figure 3 (case 2).³¹

³⁰ FAR 49.207; see also FAR 52.249-2(f), which states that the total contract price is reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated.

³¹ For terminations lasting more than a year, the time value of money would also have to be considered in determining whether it costs more to terminate than to complete a contract.

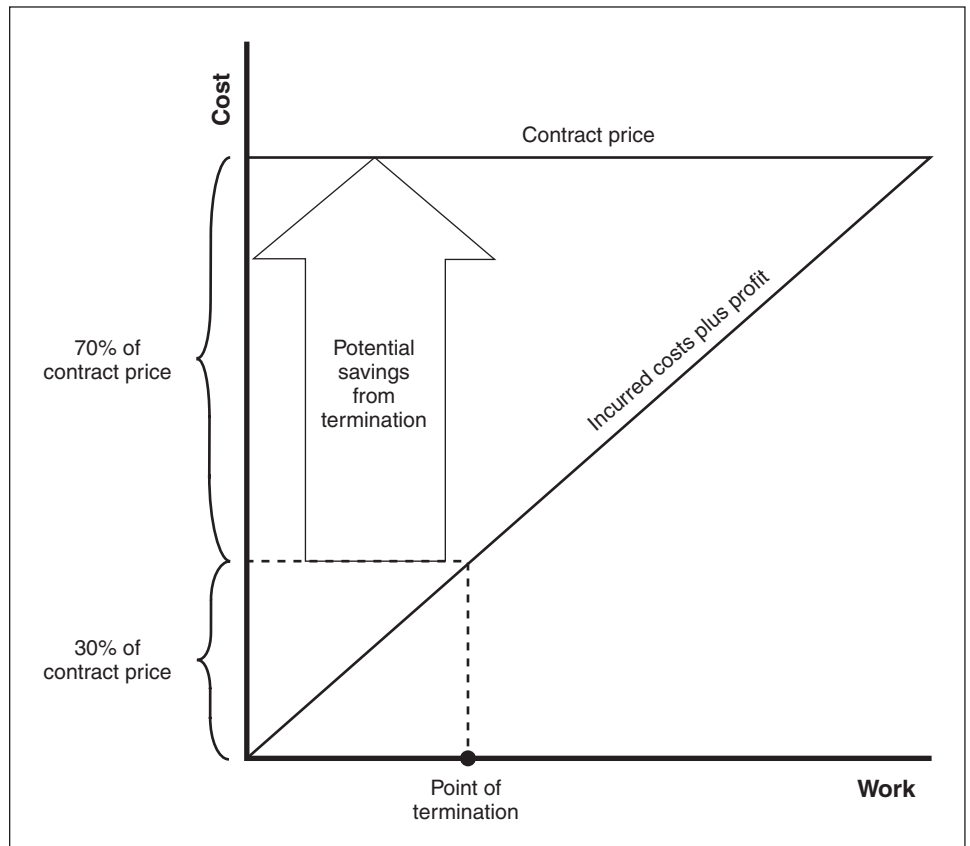
Figure 3: Termination Costs versus the Value of the Remaining Work



Source: GAO analysis.

Termination costs are more likely to exceed the value of the remaining work late in the life of a fixed-price contract because the government's savings as a result of a termination (i.e., the value of the remaining work) decrease over the life of a contract. For example, if the contract is terminated after 30 percent of the costs under the contract have been incurred, the government would save 70 percent of the contract price (before accounting for termination costs). It would only cost more to terminate the contract than to complete it if termination costs were greater than 70 percent of the contract price. Figure 4 shows that as the completed work increases, the potential cost savings decrease. (Fig. 4 depicts the incurred costs and profit curve as linear to illustrate these concepts, but may not reflect actual incurred cost and profit curves. See app. I for further discussion of how cost and profit curves affect settlements.) Of the contracts we reviewed, the TSSAM had the highest termination costs, at \$172 million, or 6 percent of the contract price. However, the value of the remaining work was over 13 percent of the contract price (over \$384 million of about \$2.8 billion), so it cost less to terminate the TSSAM contract than to complete it. In determining whether it would cost more to terminate a contract than to complete it, we believe the value of the termination costs does not matter as much as the ratio of termination costs to the value of the remaining work.

Figure 4: Termination Costs versus the Value of Remaining Work for Fixed-Price Contracts



Source: GAO analysis.

Cost-reimbursement contracts: Cost-reimbursement contracts generally would not cost more to terminate than to complete unless the government authorized the contractor to exceed the estimated contract cost. For fully funded cost-reimbursement contracts, the FAR's Limitation of Cost clause provides that the government is not obligated to reimburse the contractor in excess of the estimated cost of the contract. Nevertheless, whether the clause's cost limitations act as a total cap on the government's liability is sometimes determined on a case-by-case basis by courts and agency boards which decide whether it is equitable for the agency to provide

funding over the estimated cost.^{32,33} For all fully funded cost-reimbursement contracts, the Limitation of Cost clause requires the contractor to notify the government in writing when the total estimated cost of performing the contract, exclusive of any fee, will be greater than previously estimated.³⁴ The government then has a choice—it must notify the contractor in writing that (1) it increased the estimated contract cost (and obligated more money to the contract) or (2) the contract will be terminated.³⁵ If the contractor's incurred costs are equal to the estimated contract cost, the contractor is not obligated to perform any work to settle a termination (i.e., dispose of inventory or negotiate with sub-contractors). The government would be required to add additional funds to pay for termination costs before directing the contractor to take actions to settle the termination.³⁶ Therefore, while the government is not required to pay more under a cost-reimbursement contract than the previously estimated contract cost, it may choose to do so when it is in its best interest.³⁷

For the purposes of this review, we examined eight terminated contracts of weapon systems whose contract price or estimated cost exceeded \$100 million. While it is possible that a contract could cost more to terminate

³² The FAR's Limitation of Funds clause (FAR 52.232-22) applies to incrementally funded cost-reimbursement contracts. It is similar to the Limitation of Cost clause, but limits the government's contractual liability to the amount of funding available on a contract, which may be less than the estimated contract cost.

³³ The Limitation of Cost clause will not apply when the contractor could not have reasonably foreseen the cost overrun. *RMI, Inc. v. U.S.* 800 F.2d 246 (Fed. Cir. 1986).

³⁴ The contractor is also required to notify the government in writing when the contractor has reason to believe that the costs it will incur in the next 60 days, when added to all previously incurred costs, will exceed 75 percent of the estimated contract price or when the estimated contract cost is substantially less than previously estimated.

³⁵ Other options include notifying the contractor in writing that (1) the contract will no longer be funded and the contractor should submit its proposal for a fee adjustment, as applicable; or (2) the government is considering whether to allot additional funds or to increase the estimated cost.

³⁶ FAR 32.704(b) states, in part: Under a cost-reimbursement contract, the contracting officer may issue a termination notice without immediately increasing the funds available. Since a contractor is not obligated to incur costs in excess of the estimated cost in the contract, the contracting officer shall ensure availability of funds for directed actions.

³⁷ However, contracting officers cannot abuse their discretion in failing to fund overruns, since they will be found to have breached their implied contractual duty of good faith and fair dealing. See generally, *Nash Janitorial Serv., Inc.*, GSBGA 6390, 84-1 BCA 17,135 at 85,370.

than to complete, as shown in table 1, we did not find any cases in which this occurred.

Table 1: Contracts Over \$100 Million Terminated Since 1995

Contract name	Contract type	Contract price at time of termination	Total settlement	Amount contract price exceeded total settlement
Comanche	Cost-reimbursement	\$6,586,200,000	\$2,739,126,125	\$3,847,073,875
Tri-Service Standoff Attack Missile	Fixed-price	\$2,838,312,523	\$2,474,157,972	\$364,154,551
Crusader	Cost-reimbursement	\$1,873,914,504	\$1,662,737,672	\$211,176,832
B-1 B Defense Systems Upgrade Program	Cost-reimbursement	\$282,434,749	\$257,900,000	\$24,534,749
Tomahawk Baseline Improvement Program	Cost-reimbursement	\$239,676,147	\$230,540,804	\$9,135,343
Space and Missile Tracking System Low Earth Orbit	Cost-reimbursement	\$204,292,000	\$203,227,527	\$1,064,473
Smart Target Activated Fire and Forget	Cost-reimbursement	\$162,781,580	\$156,808,356	\$5,973,224
Land Warrior	Cost-reimbursement	\$133,559,667	\$121,991,538	\$11,568,129

Source: GAO analysis of data from DCMA's Termination Center and the Army.

Note: The contract price for the Space and Missile Tracking System Low Earth Orbit at the time of termination was unavailable. This figure represents the contract price of items terminated.

Some Factors May Increase Settlement Amounts

Although we found that it generally does not cost more to terminate a contract than to complete it, factors such as the timing of a termination, how costs are incurred over the life of a contract, and the cost of disposing of inventory and negotiating with subcontractors could result in higher settlements. Settlements tend to be lower if a contract is terminated sooner rather than later because incurred costs increase over time. (See app. I for further discussion of this topic.) In addition, any contract in which costs are incurred sooner rather than later could potentially increase the settlement amount in the event of a termination. Multiyear contracts, for example, allow contractors to enter into contracts for a period of up to 5 years so that they can purchase more than 1 year's worth of equipment for materials from their suppliers. This could result in savings with regard to the total estimated cost of carrying out the program if the contract is completed, but may also result in higher incurred costs if the contract is terminated. For example, if the contractor bought all the materials for a 5-year multiyear contract at the beginning of the contract and the contract was terminated after the second year, the government would have to reimburse the contractor for 3 years' worth of materials that it no longer needed. By shifting costs from the fourth or fifth year to the

first year, a multiyear contract may result in higher termination settlements than a series of annual contracts. Finally, termination costs are driven in part by the cost of disposing of inventory and settlement negotiations, including those between the prime contractor and subcontractors. Therefore, a large amount of inventory or large number of subcontractors could result in higher termination costs, because of the increased time it could take to finalize a settlement for each of those situations. In addition, other factors such as the complexity of the actual service or product may also play a role. For example, as a DOD official stated, disposing of a small amount of classified stealth material may cost more because classified materials have to be protected and destroyed.

DOD Has Options for Retaining Value or Reducing Costs when Programs Are Canceled or Contracts Are Terminated

When a line of work ends by either a program cancellation or a contract termination, DOD may be able to recover useful items of value that can be used on other DOD efforts. Furthermore, the way in which the work ends may affect the value of what DOD is able to recover. The government must decide whether it is in its best interest to complete a contract, or terminate it and transfer technology, information, and property to other DOD programs. For example, both the Comanche and Crusader were canceled programs in which DOD had invested billions of dollars. Yet following each of those cancellations, the government was able to transfer significant amounts of technology and property from those programs to other DOD programs.

E-10A (Air Force)

Prime contractor: Northrup Grumman Corp.
Program started: 2003
Program canceled: 2007
Estimated program cost: \$1.61 to \$1.74 billion^a



Source: Northrup Grumman Corp.

The E-10A was a plane equipped with radar that was intended to provide next-generation air and ground moving target detection capabilities and an imaging capability for surface surveillance. Through a DOD program budget decision, the budget was restructured and the program was canceled. However, none of the contracts associated with the program were terminated. The Air Force plans to complete the commercial-item, fixed-price contract to obtain the plane. The Air Force also descope and continued acquisition of the radar under a modified contract for use on the Global Hawk. The contract to integrate the radar and the plane was discontinued at the end of the period of performance.

^aProgram officials were unable to give an exact value because the radar contract included funding for a variant to be used on another system, the Global Hawk.

DOD Can Complete the Original Contract or Modify It: When a contract is nearly complete, it may be in the government's best interest to complete it rather than terminate it, even when the associated program has been canceled. For example, when DOD canceled the E-10A program, Air Force officials examined the program in order to determine how to most effectively end work on the program's various contracts. Under the E-10A program, the Air Force had entered into a commercial-item, fixed-price contract to purchase a plane and a separate cost-reimbursement contract for the radar. Air Force officials decided to complete the contract for the plane by making one final payment to take delivery of it. Had the Air Force terminated this commercial contract, it would have received nothing of value in return.³⁸ In addition, the Air Force decided not to terminate the radar contract, but to descope it and continue it under a modified contract.

³⁸ If a contract for commercial items is terminated for the government's convenience, any uncompleted inventory belongs to the contractor.

Littoral Combat Ship (Navy)

Prime contractor: Lockheed Martin (LCS-1 and LCS-3); General Dynamics (LCS-2 and LCS-4)
Program started: 2002
LCS-3 contract price: \$204.7 million
LCS-4 contract price: \$226.1 million
Contract terminated: 2007
Total settlement: In progress



Source: U.S. government.

The Littoral Combat Ship (LCS) is designed to counter threats from mines, submarines, and surface craft in shallow water, where there is currently a capability gap. The LCS program has experienced substantial design changes, schedule delays, and cost growth. The Navy anticipates LCS-1 and LCS-2 to exceed their combined budget of \$472 million by more than 100 percent and anticipates lead ship delivery to occur approximately 18 months later than initially planned. Due to these challenges, the Navy stopped construction of the LCS-3 and LCS-4 after failing to reach agreement with the prime contractors to modify the existing cost-reimbursement contracts to fixed-price contracts. Because a significant amount of work on the gears and gas turbines on LCS-3 had been completed, the Navy completed work on these items for use on other ships.

DOD Can Terminate a Contract and Transfer Technology or Property:

When a contract is terminated, DOD can take steps to retain value by transferring technology, information, and property to a new or ongoing program. For example, in the wake of the Crusader termination, the Army transferred almost 26,000 inventory line items (valued at more than \$150 million) from the Crusader to create the Non-Line-of-Sight-Cannon (NLOS-C) program. According to one Army official, the technology transfer also preserved DOD's technical and scientific expertise in its armored community. Moreover, an additional 9,800 inventory line items from the Crusader program, valued at \$25.8 million, were transferred to the NLOS-C program. When the Army terminated the Comanche helicopter program, it transferred the Comanche's fly-by-wire flight control system technology and 70,000 line items of property to other DOD programs as a way to retain value for work performed as well as lower termination costs. Overall, the Army was able to reutilize more than 60 percent of the Comanche's property, valued at more than \$360 million.

DOD Can Terminate a Contract and Continue Limited Work:

If a contract is terminated, it may also be in the government's best interest to continue a limited amount of work on a line item of a terminated contract to complete technology or items for future use. For example, following the termination of the LCS-3, Navy officials told us that a significant amount of work on the gears and gas turbines, among other items, had been completed. As a result, the Navy decided to complete work on those line items of the terminated contract for use on other ships.

Conclusions

Past experience with terminations highlights important lessons for DOD in making decisions to cancel individual programs as well as in managing its broader investment portfolio. When considering cancellation of individual programs, defense stakeholders have sometimes expressed concerns that it will cost more to terminate a contract than to complete it. Among the contracts that we reviewed, we did not find evidence to support this contention. Moreover, none of the DOD officials with whom we spoke identified a contract that cost more to terminate than complete.

Accordingly, contract termination costs are generally not a compelling reason to continue programs or contracts that otherwise warrant ending. In addition, while incurred or "sunk" costs in programs being considered for termination may be substantial, they must be paid regardless of whether or not a contract is terminated. Therefore, the decision to terminate a contract or cancel a program should not be driven by sunk costs. Lastly, when a contract warrants termination, the decision should be made as soon as possible because delaying a termination almost always results in higher settlement costs to the government.

From an investment portfolio perspective, terminations can be a valuable tool in responding to long-term fiscal imbalances as well as unexpected threats and other events that could constrain spending. While not a substitute for sound upfront investment decisions, terminations can create more trade space in the more than \$850 billion that still remains in outstanding commitments in DOD's planned \$1.6 trillion investment in weapons programs. However, to make the most effective use of this tool, decision-makers need to be able to anticipate and plan for possible terminations and have a sound understanding of costs, benefits, and legal requirements. As a result, guidance on terminations developed by the military services and other DOD entities, should be clear, consistent, proactive, and detailed enough to provide the knowledge needed to use terminations as an investment portfolio tool.

Recommendation

GAO recommends that DOD review, and as needed amend, guidance on terminations across the military services and DOD entities to ensure that termination guidance consistently identifies the conditions under which it is appropriate to end programs or contracts, and provides knowledge needed to use terminations as an investment portfolio tool.

Agency Comments and Our Evaluation

DOD provided us with written comments on a draft of this report. The comments appear in appendix II. DOD also provided one technical comment, which we incorporated in this report.

DOD concurred with our recommendation to review, and amend as needed, guidance on contract terminations for convenience across the military services and DOD. This is a positive step toward using terminations as an investment portfolio tool.

We are sending copies of this report to the Secretary of Defense and other appropriate congressional committees. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

Should you or your staff have any questions about matters discussed in this report, please contact me at (202) 512-4841 or chaplainc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.

A handwritten signature in black ink, appearing to read 'Cristina Chaplain', with a long horizontal line extending to the right.

Cristina Chaplain
Director, Acquisition and Sourcing Management

List of Committees

The Honorable Carl Levin
Chairman
The Honorable John McCain
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Daniel K. Inouye
Chairman
The Honorable Ted Stevens
Ranking Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable Ike Skelton
Chairman
The Honorable Duncan L. Hunter
Ranking Member
Committee on Armed Services
House of Representatives

The Honorable John P. Murtha
Chairman
The Honorable C.W. Bill Young
Ranking Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

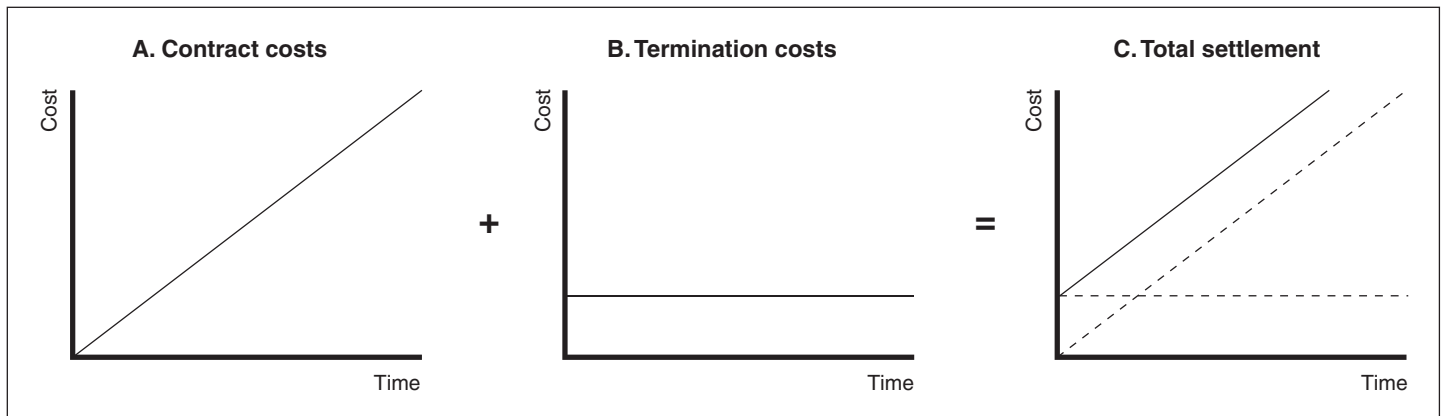
Appendix I: Termination Costs and Settlement Amounts

In general, terminating a contract sooner will result in a lower settlement amount than terminating later, and eventually it will cost more to terminate than to complete a contract. How contract costs are spread out over the life of the contract will vary from one contract to another, as will termination costs. That variation in the timing and amount of costs could have important implications for termination settlement amounts. It will also determine the point at which it would be more cost-effective for the government to complete a contract rather than terminate it. This appendix will graphically illustrate these points.

Components of a Termination for Convenience

Figure 5 illustrates the components of a settlement for a hypothetical contract termination for convenience. The settlement is the sum of the contract costs (contractor's incurred costs for work performed and fee/profit on that work) and termination costs. To start our discussion, the cost curves are depicted as linear for the sake of simplicity. This means that contract costs (5A) are assumed to increase at a constant rate over the life of the contract, and termination costs (5B) are assumed to be constant over the life of the contract. The settlement is the sum of the contract costs and termination costs as shown in figure 5C. Changing either of the components will alter the settlement amount.

Figure 5: Components of a Settlement



Source: GAO analysis.

Contract Costs

Figure 5 depicts linear contract cost curves. Although we do not know the shape of the contract cost curves for the contracts we reviewed or for defense contracts in general, they probably fluctuate from one period to

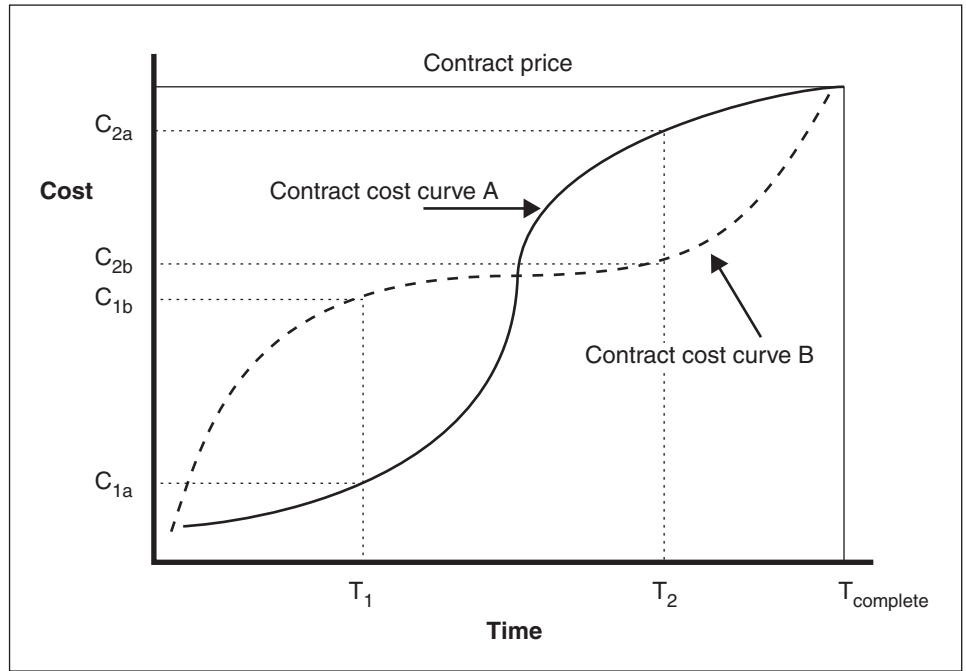
the next and may resemble some form of the S curves in figure 6.¹ The shape of the curves in figure 6 illustrates how the cost of work, which presumably is driven by the amount and type of work, can change over the life of a contract. In figure 6, the total cost is the same for both curves.² How that cost is spread out over the life of the contract can vary dramatically, as is depicted by the two curves in figure 6. At any given point, the contract costs (and ultimately the settlement) could be higher or lower depending on the shape of the curve. For example, if the contracts depicted in figure 6 were terminated early in the life of the contracts (time T1), contract costs would be lower under curve A than under curve B. Alternatively, contract costs would be higher under curve A if the contract were terminated later in the life of the contract (time T2).³

¹ Contract cost curve A in figure 7 resembles the shape of the Actual Cost of Work Performed curves in DOD's earned value management literature, whereas curve B resembles total cost curves in microeconomic theory. One possible explanation for the difference in the two curves is that microeconomics generally focuses on production, whereas earned value management applies to a single contract that may cover only one phase of development or production.

² In practice, the sequencing of the work and when costs are incurred will affect the contract cost curve. There may be a number of ways to structure a contract to accomplish a given amount of work, some that are more efficient and cost-effective than others. The most cost-effective way to complete a contract may not necessarily result in the lowest termination settlement amount.

³ Any contract in which costs are incurred sooner rather than later could potentially increase a settlement amount in the event of a termination. For example, multiyear contracts allow contractors to engage in contracts up to five years so that they can purchase more than one year's worth of equipment or materials from their suppliers. This could result in savings with regard to the total estimated cost of carrying out the program if the contract is completed, but may also result in higher incurred costs if the contract is terminated. For example, if the contractor bought all the materials for a 5-year multiyear contract at the beginning of the contract and the contract was terminated after the second year, the government would have to reimburse the contractor for 3 years' worth of materials that it no longer needed. By shifting costs from the fourth or fifth year to the first year, a multiyear contract may result in higher termination settlements than a series of annual contracts.

Figure 6: Two Possible Contract Cost Curves

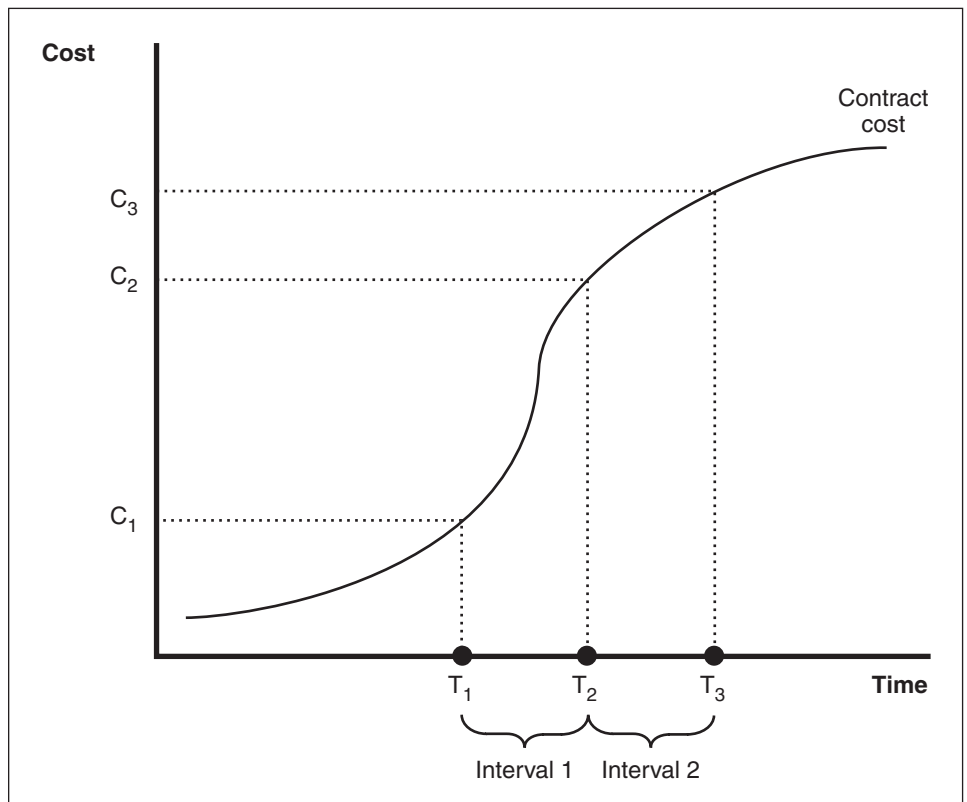


Source: GAO analysis.

How Timing of a Termination May Affect the Settlement

Contract costs will typically be less if a contract is terminated sooner rather than later, but the cost of delaying a termination will be greater in some cases than in others. For example, as depicted in Figure 3, if a termination decision is delayed over a steep portion of the curve, the delay will result in much higher costs (i.e., delaying from T_1 to T_2 results in an increase in costs from C_1 to C_2). If the decision is delayed over a flatter portion of the curve, the delay will result in higher costs, but only marginally higher (i.e., delaying from T_2 to T_3 results in an increase in costs from C_2 to C_3). This would be important to know if DOD was considering a termination, but had not yet made a final decision.

Figure 7: Cost Implications of Delaying a Termination Decision



Source: GAO analysis.

Termination Costs

Like contract costs, it is unlikely that termination costs would be linear, although we do not know the shape of the termination cost curves for the

contracts we reviewed or for defense contracts in general. Unlike contract costs, termination costs could go down at different points in the contract. Termination costs can be driven by a variety of factors such as negotiating with subcontractors and the cost of disposing of inventory. Thus, when the contractor purchases materials or issues a subcontract, termination costs would likely go up. Alternatively, if the subcontractor completes its contract before a termination, the prime contractor would not have to negotiate with a subcontractor. Thus, termination costs could increase early in the contract and decrease towards the end of the contract.

In theory, if termination costs dropped enough over a short period of time, the settlement amount could go down, at least temporarily. A settlement consists of the contract costs and the termination costs. Contract costs always go up over time, but if they were increasing at a slow rate and a large subcontractor completed its work, resulting in a significant drop in termination costs, the sum of the two could actually be less than the settlement amount for the period before the subcontractor completed its work. However, as work continues, contract costs would continue to increase. Therefore, the settlement would go up again.

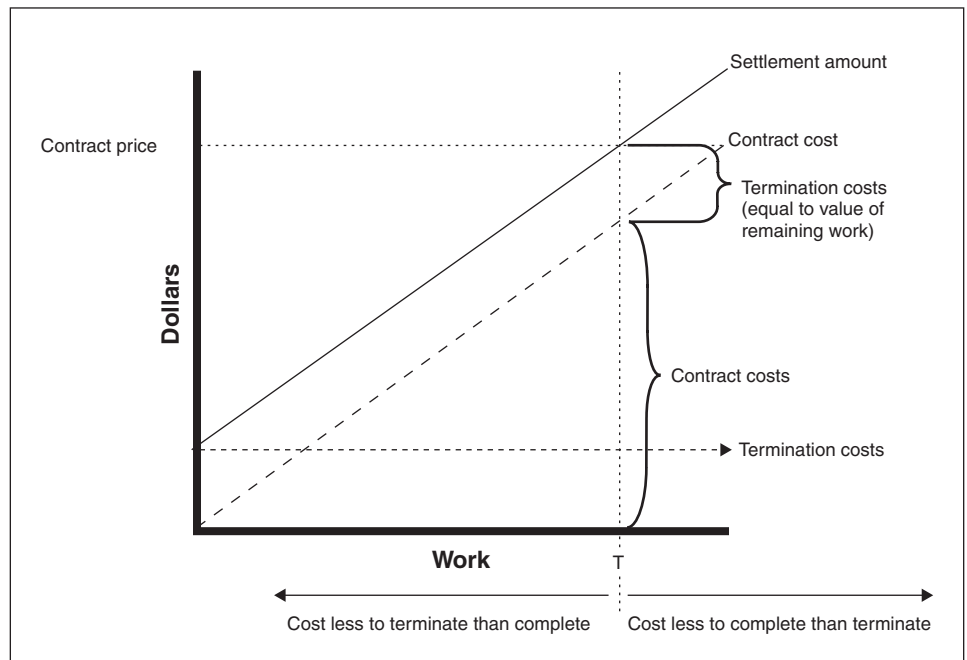
The Break-Even Point

Delaying a termination decision will generally result in higher settlement amounts, and at some point the settlement will exceed the contract price. There is a break-even point at which it would cost the same to terminate a contract as to complete it. Terminating before that point would cost less than completing the contract and terminating after that point would cost more. Figure 8 shows that the break-even point is determined by contract costs, termination costs, and the contract price. The contract price is the amount a contractor would be paid if a contract is completed. At any point in the life of the contract, the government would have to pay for the work performed up to that point regardless of whether the contract is completed or terminated. In the event of a termination, the government would not have to pay for work the contractor did not perform, so the value of unperformed work represents the cost of completing the contract.⁴ We refer to the cost of completing the contract as the value of

⁴To determine whether it would cost more to terminate than to complete a contract, we would compare the unique costs of each course of action. The value of the remaining work is the unique cost of completing the contract, whereas termination costs are the unique costs of terminating a contract. For terminations lasting more than a year, the time value of money would also have to be considered in determining whether it costs more to terminate than to complete a contract.

the remaining work. The break-even point is where the settlement amount is equal to the contract price. It is also where the value of the remaining work (the contract price less contract costs) is equal to termination costs. Changing the shape of the contract cost curve or the termination cost curve could shift when the break-even point occurs.

Figure 8: The Break-Even Point



Source: GAO analysis.

We do not know where the break-even point occurred for the contracts we reviewed. However, the termination costs we observed were relatively low compared to the contract price (or estimated contract price). This suggests that the break-even point for the contracts we reviewed would have occurred toward the end of the contract, at least in terms of costs. For example, termination costs for the TSSAM contract were 6 percent of the contract price. The break-even point would occur where contract costs reached 94 percent of the contract price.

Appendix II: Comments from the Department of Defense



ACQUISITION
TECHNOLOGY
AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

MAR 12 2008

Ms. Cristina T. Chaplain
Director, Acquisition and Sourcing Management
U.S. Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Ms. Chaplain:

This is the Department of Defense (DoD) response to the GAO draft report GAO-08-379, 'DEFENSE ACQUISITIONS: Termination Costs Are Generally Not a Compelling Reason to Continue Programs or Contracts That Otherwise Warrant Ending,' dated February 11, 2008, (GAO Code 120599). Detail comments on the report recommendations are enclosed.

Sincerely,

Shay D. Assad
Director, Defense Procurement
and Acquisition Policy

Enclosure:
As stated



GAO Draft Report Dated February 11, 2008
GAO-08-379 (GAO CODE 120599)

**“DEFENSE ACQUISITIONS: TERMINATION COSTS ARE
GENERALLY NOT A COMPELLING REASON TO CONTINUE
PROGRAMS OR CONTRACTS THAT OTHERWISE WARRANT
ENDING”**

**DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS**

RECOMMENDATION 1: The GAO recommends that DoD review, and as needed, amend guidance on terminations across the military services and DoD entities to ensure that termination guidance consistently identifies the conditions under which it is appropriate to end programs or contracts, and provides knowledge needed to use terminations as an investment portfolio tool. (Page 23/GAO Draft Report)

DOD RESPONSE: DoD concurs with the recommendation with comment. DPAP will review, and amend as needed, current guidance on terminations to ensure that termination guidance consistently identifies the conditions under which it is appropriate to end programs or contracts, and provides knowledge needed to use terminations as an investment portfolio tool.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

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Acknowledgments

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