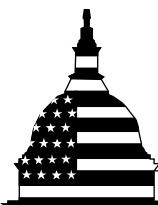


February 2012

# DEFENSE MANAGEMENT

## Guidance and Progress Measures Are Needed to Realize Benefits from Changes in DOD's Joint Requirements Process



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## Report Documentation Page

*Form Approved*  
*OMB No. 0704-0188*

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1. REPORT DATE <b>FEB 2012</b>	2. REPORT TYPE	3. DATES COVERED <b>00-00-2012 to 00-00-2012</b>			
4. TITLE AND SUBTITLE <b>Defense Management: Guidance and Progress Measures Are Needed to Realize Benefits from Changes in DOD's Joint Requirements Process</b>		5a. CONTRACT NUMBER			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S)		5d. PROJECT NUMBER			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Government Accountability Office, 441 G Street NW, Washington, DC, 20548</b>		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>	<b>Same as Report (SAR)</b>	<b>49</b>	

## Why GAO Did This Study

The Department of Defense's Joint Requirements Oversight Council (JROC) is charged with assisting in the prioritization of capability needs from a joint perspective and helping guide investments. The JROC is supported by the Joint Capabilities Integration and Development System (JCIDS) process. However, a congressional committee and GAO have expressed concerns about the extent to which JCIDS has been effective in prioritizing capability needs. The Ike Skelton National Defense Authorization Act for Fiscal Year 2011 required GAO to provide a report on the effectiveness of JCIDS in several areas. In addition to responding to this direction, GAO has more broadly evaluated the extent to which (1) the Joint Staff has developed and implemented an analytic approach to prioritize capability needs and (2) the JROC has considered aspects of the availability and operational support of weapon systems—called sustainment—when validating the requirements of proposed capability solutions. To do so, GAO analyzed capability documents, reviewed relevant guidance and law, and interviewed officials.

## What GAO Recommends

GAO recommends that the Vice Chairman of the Joint Chiefs of Staff (1) revise and implement JCIDS guidance to reflect recent changes to the process and establish criteria and measures for determining the relative importance of capability needs and (2) require program sponsors to address each criterion in JCIDS guidance related to sustainment in capability documents. DOD partially concurred with GAO's recommendations.

View [GAO-12-339](#). For more information, contact John Pendleton at (202) 512-3489 or [pendletonj@gao.gov](mailto:pendletonj@gao.gov).

## DEFENSE MANAGEMENT

### Guidance and Progress Measures Are Needed to Realize Benefits from Changes in DOD's Joint Requirements Process

## What GAO Found

After studying the Joint Capabilities Integration and Development System (JCIDS) process since September 2010, the Joint Staff began initiating actions in October 2011 to better prioritize capability needs and align those needs with available budgetary resources. Specifically, according to Joint Staff officials, the Joint Requirements Oversight Council (JROC) has begun to consider the benefits and affordability of new capabilities within the context of joint capability areas and to evaluate possible duplication before validating new capability requirements. The Joint Staff has begun to implement a new approach to support JROC prioritization of capability needs, but the new approach is still evolving and has not been fully developed and clearly documented. New guidance does not clearly outline goals of the new approach, develop and communicate the analytic approach envisioned to support JROC decision making, or set out criteria and accompanying measures of progress. GAO previously reported that JCIDS's ability to prioritize needs could be improved if it had an analytic approach to reviewing and validating proposals that would help ensure that the most important capability needs of the department are addressed. Until the Joint Staff takes steps to fully develop, document, and institutionalize the new analytic approach, it is not clear whether the current momentum for improving the JCIDS process will be sustained.

JCIDS guidance in effect through December 2011 required that sponsors of potential major defense acquisition programs address sustainment information in capability development documents according to four metrics—materiel availability, operational availability, reliability, and ownership cost. Each of these metrics includes a set of potentially reportable criteria or data, which are listed as review criteria and are suggested, but not clearly required by the guidance, to be included in the metric. Based on GAO's analysis of six capability development documents, GAO found that all of the documents provided information on the four required sustainment metrics, but the completeness of information for all of the metrics' key criteria varied. Further, in some cases information that should have been included, according to Department of Defense officials, was not provided. The Joint Staff issued updated JCIDS guidance in January 2012, but the guidance still does not clearly require program sponsors to report on the individual criteria for each of the four sustainment metrics. Without complete and detailed information on each of the individual criteria elements, the JROC may not have the information it needs to make the most informed decisions when validating the requirements of proposed solutions intended to mitigate capability gaps.

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Figure

Figure 1: Interaction between DOD’s Requirements Generation and Acquisition Processes

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## Abbreviations

CJCSI	Chairman of the Joint Chiefs of Staff Instruction
DOD	Department of Defense
JCIDS	Joint Capabilities Integration and Development System
JROC	Joint Requirements Oversight Council

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February 24, 2012

### Congressional Committees

Like the rest of the federal government, the Department of Defense (DOD) is operating in a constrained budget environment and facing difficult decisions about how to invest its resources to meet national security objectives. The Joint Requirements Oversight Council (JROC) directly and indirectly supports the Chairman of the Joint Chiefs of Staff's role as the principal military advisor to the President and other senior national security officials. The JROC consists of the Vice Chairman of the Joint Chiefs of Staff and other senior military officials and, among other duties, is expected to assist in the prioritization of joint military requirements and ensure that resource levels needed to fulfill those requirements are consistent with the level of priority. These duties can help ensure that proposed weapon systems are prioritized to create an affordable portfolio. The JROC uses the Joint Capabilities Integration and Development System (JCIDS), a process created in 2003 to guide the development of capabilities from a joint perspective, to help it identify capability gaps and validate the requirements of proposed capability solutions to mitigate those gaps. JCIDS operates in conjunction with two other DOD processes—the acquisition process, which facilitates the development and acquisition of proposed capabilities, and the budgeting process, through which these capabilities are funded. The development and acquisition of weapon systems consume a substantial portion of DOD's budget. From fiscal years 2011 through 2016, DOD plans to spend almost \$390 billion on its current portfolio of major defense acquisition programs.<sup>1</sup> Moreover, DOD spends billions of dollars each year to sustain these weapon systems. As we have reported, costs to operate and support these systems make up at least 70 percent of a system's life cycle costs.<sup>2</sup> The House Armed Services Committee and GAO have

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<sup>1</sup>Major defense acquisition programs are those programs identified by DOD that are estimated to require eventual total expenditure for research, development, test, and evaluation, including all planned increments, of more than \$365 million or expenditure for procurement, including all planned increments, of more than \$2.19 billion in fiscal year 2000 constant dollars. Programs may also be designated by DOD as major defense acquisition programs.

<sup>2</sup>GAO, *Defense Management: DOD Needs Better Information and Guidance to More Effectively Manage and Reduce Operating and Support Costs of Major Weapon Systems*, [GAO-10-717](#) (Washington, D.C.: July 20, 2010).

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expressed concerns about the extent to which JCIDS has been effective in assigning priorities to capabilities proposed to meet the needs of the joint force.

A provision in the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 required GAO to provide a report on the effectiveness of JCIDS in several areas, such as prioritizing joint requirements and considering information on costs of sustaining future programs.<sup>3</sup> In appendix I, we have reprinted the elements of the provision to be covered by the report and our response to each one.<sup>4</sup> As part of our analysis, we also evaluated (1) the extent to which the Joint Staff has developed and implemented an analytic approach to prioritize capability needs and (2) the extent to which the JROC has considered aspects of the availability and operational support requirements of weapon systems—called sustainment—when validating the requirements of proposed capability solutions.

To assess the extent to which the Joint Staff has developed and implemented an analytic approach to prioritize capability needs, we reviewed relevant law and Joint Staff policy documents and related guidance on the roles and responsibilities of the JCIDS process and the JROC as it pertains to prioritization. We interviewed Joint Staff officials to discuss changes to its approach for managing requirements within capability portfolios and making recommendations for trade-offs among alternatives. We also reviewed prior GAO reports that discussed capability development and requirements prioritization and compared the current efforts to minimize risks and identify unnecessary overlap and duplication with what we reported in the past. To assess the extent to which the JROC has considered aspects of the availability and operational support requirements of weapon systems—called sustainment—when validating the requirements of proposed capability solutions, we reviewed DOD and Joint Staff policy documents and related guidance on the requirement to develop sustainment metrics for capability documents for certain programs processed through JCIDS. We interviewed DOD and Joint Staff officials to discuss the preparation, presentation, and consideration of sustainment data. We also selected a

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<sup>3</sup>See Pub. L. No. 111-383, § 862 (2011).

<sup>4</sup>We provided a draft of this report to the congressional defense committees on January 6, 2012, to satisfy this requirement.

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nonprobability sample of six requirements documents for programs that have been required to report sustainment metrics to determine whether the documents contained the required metrics and the supporting information included with the metrics.

We conducted this performance audit from April 2011 through February 2012 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. Additional details on our scope and methodology are in appendix II.

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## Background

JCIDS; the Planning, Programming, Budgeting and Execution process; and the Defense Acquisition System broadly make up DOD's overall defense acquisition management framework. JCIDS was implemented in 2003 to guide future defense programs from a joint capabilities perspective. JCIDS is one of the first steps in DOD's acquisition processes; JCIDS participants work to identify and determine whether to validate the need for capabilities proposed by the services, the defense agencies, and the combatant commands. Once a requirement is validated, the services rely on the DOD's Planning, Programming, Budgeting and Execution process, through which DOD allocates financial resources across the department—including the services—to identify funding for validated capability solutions. DOD then manages the development and procurement of proposed capabilities through the Defense Acquisition System.

DOD implemented the JCIDS process in 2003 in an effort to assist the JROC by changing DOD's requirements validation process from a service-specific perspective to a joint capabilities perspective. The JROC, which is chaired by the Vice Chairman of the Joint Chiefs of Staff, consists of a general or admiral from each of the military services and may include combatant commanders or deputy commanders when

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directed by the JROC Chairman.<sup>5</sup> The JROC is charged with assisting the Chairman of the Joint Chiefs of Staff with a number of tasks, including (1) identifying, assessing, and approving joint military requirements to meet the national military strategy; (2) establishing and assigning priority levels for joint military requirements; and (3) reviewing the estimated level of resources required to fulfill each joint military requirement and ensuring that the resource level is consistent with the requirement's priority, among others. The JROC also assists acquisition officials in identifying alternatives to any acquisition programs that meet joint military requirements for the purposes of certain statutory provisions, addressing matters such as cost growth. In 2009, the Weapon Systems Acquisition Reform Act expanded the role of the JROC by directing it to assist the Chairman of the Joint Chiefs of Staff in ensuring that trade-offs among cost, schedule, and performance objectives are considered for joint military requirements and establishing an objective for the overall period of time within which an initial operational capability should be delivered to meet each joint military requirement.<sup>6</sup>

The JROC reviews requirements for programs designated as JROC-interest based on their expected cost and complexity<sup>7</sup> and, under

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<sup>5</sup>The following officials serve as advisors to the JROC on matters within their authority and expertise: the Under Secretary of Defense for Acquisition, Technology and Logistics; the Under Secretary of Defense (Comptroller); the Under Secretary of Defense for Policy; the Director of Cost Assessment and Program Evaluation; the Director of Operational Test and Evaluation; and such other civilian officials of DOD as designated by the Secretary of Defense. See 10 U.S.C. § 181(d)(1). The JROC must also seek and consider input from the commanders of the combatant commands in carrying out several of its missions. See § 181(d)(2).

<sup>6</sup>See Pub. L. No. 111-23, §§ 201(b)(1)(C), 201(b)(4) (2009) (codified at 10 U.S.C. § 181). Both actions are to be taken in consultation with certain officials. See *id.*

<sup>7</sup>The JROC-interest designation applies to all programs that are estimated to require eventual total expenditures for research, development, test, and evaluation, including all planned increments, of more than \$365 million or expenditures for procurement, including all planned increments, of more than \$2.19 billion in fiscal year 2000 constant dollars, or that are designated as major defense acquisition programs or special interest. The JROC-interest designation also applies to major automated information systems programs, which are programs designated as such or estimated to exceed certain expenditure thresholds. Finally, the JROC-interest designation applies to all joint doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy change recommendations and programs and capabilities that have a potentially significant impact on interoperability in allied and coalition partner operations. For JROC-interest documents, recommendations on capability needs are passed on to the Joint Capabilities Board that reviews and, if appropriate, forwards them with recommendations to the JROC for validation and approval.

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guidance in effect through December 2011, also reviewed programs at the request of certain senior DOD officials. Within JCIDS, the JROC is supported in its duty to review and validate joint capability needs by the Joint Capabilities Board and six Functional Capabilities Boards.<sup>8</sup> The Joint Capabilities Board is chaired by the Director of the Joint Staff's Directorate for Force Structure, Resources, and Assessment, and each Functional Capabilities Board is chaired by a general/flag officer or civilian equivalent. The Joint Capabilities Board reviews capability documents before they are passed on to the JROC for its review and also serves as the validation authority for certain programs that do not reach JROC-interest thresholds,<sup>9</sup> although the JROC may review any JCIDS document or other issues requiring joint resolution. Functional Capabilities Boards are responsible for reviewing proposed requirements specific to joint capability areas, such as protection, logistics, or battlespace awareness.

In JCIDS, the JROC and its supporting organizations review requirements documents related to capability gaps and the major defense acquisition programs intended to fill those gaps prior to key acquisition milestones. These requirements documents—initial capabilities documents, capability development documents, and capability production documents for materiel solutions and change recommendations for nonmateriel solutions—are submitted into the JCIDS process by capability sponsors.<sup>10</sup> The initial capabilities document identifies a specific capability gap, or set

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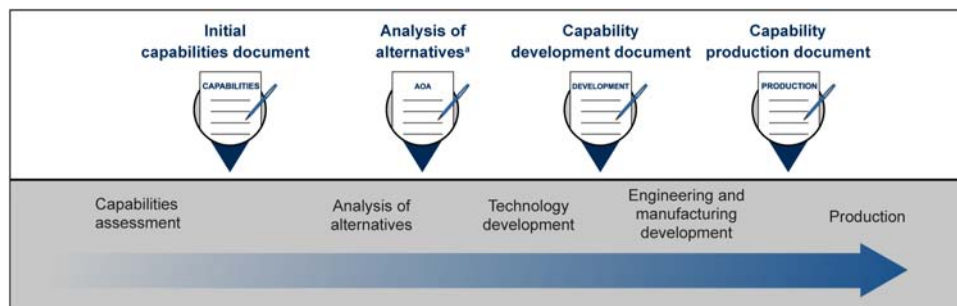
<sup>8</sup>Functional Capabilities Boards assess needs and make recommendations about validating capability gaps for documents to be validated by the JROC or the Joint Capabilities Board.

<sup>9</sup>Under the JCIDS guidance prior to January 10, 2012, the Joint Capabilities Board served as the validation authority for Joint Capabilities Board-interest programs, which were defined as all acquisition category II and below programs where the capabilities, systems, or both associated with the document would have affected the joint force and an expanded joint review was required. See Chairman of the Joint Chiefs of Staff Instruction 3170.01G at GL-6 (Mar. 1, 2009) (hereinafter cited as CJCSI 3170.01G (Mar. 1, 2009)). Under the current version of the guidance, Joint Capabilities Board-interest documents are those describing acquisition category II and below programs that have a potentially significant impact on interoperability (interagency, allied, partner nation, coalition, etc.). See *Manual for the Operation of the Joint Capabilities Integration and Development System*, enc. C, para. 3(e)(2) (Jan. 19, 2012) (hereinafter cited as *JCIDS Manual* (Jan. 19, 2012)). Under both the previous and present versions of the guidance, programs that are not designated as JROC- or Joint Capabilities Board-interest are validated by the sponsor. See *JCIDS Manual*, enc. C, para. 3(e)(3)-(5) (Jan. 19, 2012).

<sup>10</sup>Sponsors are generally the military services, but can also be other DOD agencies or combatant commands.

of gaps, and if a materiel solution is required, helps inform the initial stages of the acquisition process, which include an analysis of the alternative solutions to fulfilling the capability need and the selection of a preferred system concept. When the technology development phase of the acquisition process is complete, a program sponsor completes a capability development document that includes more detail on the desired capabilities of the proposed system and defines the system's key performance parameters or attributes against which the delivered increment of capability will be measured. Finally, the sponsor prepares a capability production document to describe the actual performance of the system that will deliver the required capability. Figure 1 depicts how JCIDS reviews align with the acquisition process.

**Figure 1: Interaction between DOD's Requirements Generation and Acquisition Processes**



Source: GAO analysis of DOD policy.

<sup>a</sup>The 2012 JCIDS guidance directs the Functional Capabilities Boards to review the analysis of alternatives and other analyses for certain capability requirements. See Chairman of the Joint Chiefs of Staff Instruction 3170.01H, Joint Capabilities Integration and Development System, enc. A, para. 2(c)(1)(b) (Jan. 10, 2012) (hereinafter cited as CJCSI 3170.01H (Jan. 10, 2012)).

The House Armed Services Committee and a panel established by the committee have discussed long-standing challenges with the JCIDS process and the JROC's fulfillment of its statutory responsibilities. The House Armed Services Committee, in a report accompanying a bill for the National Defense Authorization Act for Fiscal Year 2008, described a legislative provision that would allow for joint decision making as opposed to service-centric budget considerations by incorporating clear priorities

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and budget guidance into the JROC process.<sup>11</sup> In 2009, the House Armed Services Committee established a panel on defense acquisition reform because of a sense that the acquisition system was not responsive enough for today's needs, not rigorous enough in protecting taxpayers, and not disciplined enough in the acquisition of weapon systems for tomorrow's wars. The panel received testimony that the Joint Staff lacked some of the analytical expertise necessary to ensure that the JCIDS process rigorously vets proposed requirements. Additionally, since 2008 we have reported on these challenges. We reported in 2008 that the JCIDS process was not effective in prioritizing capability gaps, and we noted that capability needs continued to be proposed and defined by the services with little involvement from the joint community. We recommended that the Secretary of Defense direct the Chairman of the Joint Chiefs of Staff to develop an analytic approach within JCIDS to better prioritize and balance the capability needs of the military services, combatant commands, and other defense components.<sup>12</sup> DOD partially agreed with our recommendation but did not fully implement it, and prioritization remains service driven. More recently, in June 2011 we reported that the JROC did not always consider trade-offs among cost, schedule, and performance objectives; prioritize requirements; consider redundancies across proposed programs; or prioritize and analyze capability gaps in a consistent manner.<sup>13</sup> We recommended that the JROC require higher-quality resource estimates from requirements sponsors to ensure that best practices are being followed, provide a sound basis to ensure that trade-offs are considered, prioritize requirements across proposed programs, and address potential redundancies during requirements reviews, among other steps. DOD partially agreed with our recommendations and commented that improvements to the quality of resource estimates would be addressed in upcoming changes to the JCIDS process.

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<sup>11</sup> See H.R. Rep. No. 110-146, at 381 (2007) (accompanying H.R. 1585). The provision, which revised parts of section 181 of Title 10, U.S. Code, was included as amended in the National Defense Authorization Act for Fiscal Year 2008. See Pub. L. No. 110-181, § 942 (2008).

<sup>12</sup> GAO, *Defense Acquisitions: DOD's Requirements Determination Process Has Not Been Effective in Prioritizing Joint Capabilities*, [GAO-08-1060](#) (Washington, D.C.: Sept. 25, 2008).

<sup>13</sup> GAO, *DOD Weapon Systems: Missed Trade-off Opportunities During Requirements Reviews*, [GAO-11-502](#) (Washington, D.C.: June 16, 2011).

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In May 2011, we also reported that combatant command<sup>14</sup> officials raised concerns that JCIDS focuses more on long-term service-centric capability gaps than on combatant commands' more immediate and largely joint gaps.<sup>15</sup> JCIDS was designed as a deliberate process to meet longer-term joint needs. To address urgent needs, DOD established a separate process—the joint urgent operational needs process—in 2005. The joint urgent operational needs process was intended to respond to needs associated with combat operations in Afghanistan and Iraq and the War on Terror. The revised JCIDS guidance canceled separate guidance for joint urgent operational needs and incorporates and describes the joint urgent operational needs process. Urgent operational needs, as defined by the new JCIDS guidance, are capability requirements needed for ongoing or anticipated contingency operations that if left unfulfilled could potentially result in loss of life or critical mission failure.<sup>16</sup> For this report, we focus on requirements that have not been identified as urgent and instead follow the deliberative JCIDS process.

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## The Joint Staff Has Initiated Efforts to Prioritize Capability Needs, but Implementation Processes Are Not Fully Developed and Clearly Documented

The Joint Staff is undertaking efforts to improve the ability to prioritize capability needs from a joint perspective through JCIDS and to align those needs with available budget resources. However, implementation processes for JCIDS's new approach to managing requirements and considering affordability are still evolving and have not been fully developed and clearly documented.

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<sup>14</sup>Combatant commands are DOD's operational commands. Of the nine combatant commands, the following six have geographic responsibilities: U.S. Africa Command, U.S. Central Command, U.S. European Command, U.S. Northern Command, U.S. Pacific Command, and U.S. Southern Command. The following three have functional responsibilities: U.S. Special Operations Command, U.S. Strategic Command, and U.S. Transportation Command.

<sup>15</sup>GAO, *Defense Management: Perspectives on the Involvement of Combatant Commands in the Development of Joint Requirements*, [GAO-11-527R](#) (Washington, D.C.: May 20, 2011).

<sup>16</sup>See CJCSI 3170.01H, at GL-7 (Jan. 19, 2012).

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## Changes in JCIDS Processes Are Intended to Improve Prioritization of Capability Needs and Guide Future Investments

Determining priorities among joint requirements has been a responsibility of the JROC since Congress amended section 181 of Title 10 of the U.S. Code in 2008 to require the JROC to assist in establishing and assigning priority levels for joint military requirements and to help ensure that resource levels associated with those requirements are consistent with the level of priority.<sup>17</sup> DOD officials acknowledge that JCIDS has been ineffective in helping the JROC carry out these responsibilities. We have previously reported that JCIDS's ability to align resources to balance competing needs could be improved if it had an analytic approach that provided a means to review and validate proposals to ensure that the most important capability needs of the department are being addressed. We further said that such an approach should establish criteria and measures for identifying capability gaps and determining the relative importance of capability needs. Finally, the approach should result in measurable progress in allocating resources in order to eliminate redundancies, gain efficiencies, and achieve a balanced mix of executable programs.<sup>18</sup>

DOD officials told us that downward pressure on the defense budget has led the Joint Staff to change how the JCIDS process is used to strengthen its ability to support JROC members in making trade-off decisions among requirements and balancing risks across the force within expected resources. In fall 2011, according to officials, the incoming Vice Chairman of the Joint Chiefs of Staff, as the Chairman of the JROC, began to make changes in the JCIDS processes to focus on what capabilities currently exist and weigh the benefits of investing in new capabilities with their estimated costs early in the review process. The Joint Staff issued draft guidance in October 2011 and began implementation based on the draft guidance. The Joint Staff issued the final guidance in January 2012. Descriptions of these changes and their implementation follow:

- **New capabilities will be considered as part of a “capability portfolio approach.”** Under the portfolio approach, officials stated that JROC members are to ensure that proposed investments in capabilities address joint needs or they will not be validated to

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<sup>17</sup> See Pub. L. No. 110-181, § 942(a) (codified as amended at 10 U.S.C. § 181(b)).

<sup>18</sup> GAO, *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD's Acquisition Outcomes*, [GAO-07-388](#) (Washington, D.C.: Mar. 30, 2007).

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proceed to the acquisition process. In addition to validating capability proposals, according to Joint Staff officials, the JROC has begun examining how the services' existing programs can support joint operations to reduce duplication of capabilities. As of December 2011, according to Joint Staff officials, the last five closed meetings of the JROC began conversations about how to meet requirements by considering available capabilities and the costs and benefits of proposed programs. As a result, according to Joint Staff officials, at least five classified programs have been reviewed and altered by either comparing redundant capabilities, reducing capacity, adjusting delivery schedules, or directing follow-on analysis before moving programs forward. To support JROC decision making, officials reported that Functional Capabilities Boards will be tasked with examining requirements, their associated capability gaps, and proposed solutions within their capability portfolios, and independently assessing how a proposed capability fits into its corresponding joint capability area. The Functional Capabilities Boards previously had responsibility for identifying, assessing, and prioritizing (if required) joint capability needs proposals within assigned joint capability areas but, according to officials, have not always carried out these responsibilities. Previously, Functional Capabilities Boards acted primarily as technical reviewers of requirements documents, and program sponsors briefed the JROC on the attributes of the program. However, the new guidance does not specify how the independent assessment is to be conducted, and it is too soon to tell how the Functional Capabilities Boards will respond to the new requirement. Officials reported that Functional Capabilities Boards are expected to develop methodologies on a case-by-case basis. DOD officials said that the analytic approach and uses of analytic information will evolve over time.

DOD has previously attempted to manage capabilities departmentwide through a portfolio approach, but has never fully implemented the approach. In 2006, DOD established an effort to manage resources across capability areas by establishing capability portfolio managers to enable DOD to develop and manage capabilities across the department rather than by military service or individual program, and by doing so, to improve the interoperability of future capabilities, minimize capability redundancies and gaps, and maximize capability effectiveness. However, as we reported in 2008, capability portfolio managers make recommendations on capability development issues within their portfolios but do not have independent decision-making authority. In 2011, Joint Staff officials

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told us that they were unaware of capability portfolio managers' active involvement in the JCIDS process.

- **Attendance at JROC meetings will be limited to key decision makers and stakeholders.** Beginning in October 2011, the JROC Chairman began to limit attendance at JROC meetings to facilitate candid discussion among senior leaders about priorities for joint requirements and alternative solutions. Joint Staff officials told us that previously, meetings were open to a broad range of interested parties and service sponsors provided briefings on their proposals for new capabilities. Under the new approach being implemented, a representative of one of the Functional Capabilities Boards will provide a briefing on the proposal to the JROC. The representatives would then present the board's independent assessment of benefits, costs, and risk for the JROC to discuss and decide upon. According to JCIDS officials, JROC members are expected to make decisions from the perspective of the joint force and avoid taking a service-centric approach.
- **Affordability of proposals will be a primary factor in validation decisions.** JROC members have always been expected to consider the resource implications of validation decisions, but officials stated that until recently, these considerations have not been a focus because capabilities were not competing with each other for funding. According to officials, the Functional Capabilities Boards have been directed to take similar steps to ensure that capability proposals not only meet technical requirements but also represent the most efficient alternative for providing a capability within the joint capability area without creating duplication or overlap. According to JCIDS officials, the JROC is also reconsidering previous validation decisions and asking for changes to proposals to minimize costs.<sup>19</sup> We reviewed recent Functional Capabilities Board briefings to the JROC, which provided information on how needs might be met with current capabilities and alternatives that might meet needs while minimizing costs. However, it is too soon to assess how the JROC will consider affordability of programs when making validation decisions.

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<sup>19</sup>We are not including specific examples of issues and programs under review because of the sensitivity of deliberations and security classification concerns.

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## New JCIDS Processes Are Not Fully Developed and Clearly Documented

The Vice Chairman of the Joint Chiefs of Staff has sought some policy changes and, according to officials, provided other direction to implement changes in the JCIDS process, but the new approach to managing requirements and considering affordability is still evolving and has not been fully developed and clearly documented. According to Joint Staff officials, the dynamic fiscal environment and the evolutionary method being used to develop the new approach and implementation processes make it important that decision makers maintain flexibility in decision making. We believe that the new approach has promise in positioning the JROC to more accurately identify capability gaps and trade-offs, but it has not been fully developed to include steps to ensure that the approach is fully implemented, that the intent is fully communicated to all stakeholders involved, and that the results of the new approach will be measurable.

We have previously reported that key practices for results-oriented management involve leadership from top officials as well as the involvement of stakeholders at all levels throughout a period of transition.<sup>20</sup> We have also reported that in order to demonstrate a successful results-oriented framework, officials must include clearly defined measures to assess intended outcomes.<sup>21</sup> As shown in table 1, key practices for supporting change should include, among other actions, obtaining and sustaining support from senior leadership to facilitate the transformation, establishing clear lines of communication between all affected parties, and demonstrating value and credibility of new processes through the use of metrics.

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<sup>20</sup>GAO, *Results-Oriented Cultures: Implementation Steps to Assist Mergers and Organizational Transformations*, [GAO-03-669](#) (Washington, D.C.: July 2, 2003).

<sup>21</sup>GAO, *Defense Management: Tools for Measuring and Managing Defense Agency Performance Could Be Strengthened*, [GAO-04-919](#) (Washington, D.C.: Sept. 13, 2004).

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**Table 1: Elements of a Results-Oriented Management Framework**

<b>Principle</b>	<b>Critical elements</b>
Ensure top leadership drives the transformation.	<ul style="list-style-type: none"><li>• Define and articulate a succinct and compelling reason for change.</li><li>• Balance continued delivery of services with transformation activities.</li></ul>
Establish a communication strategy to create shared expectations and report related progress.	<ul style="list-style-type: none"><li>• Communicate early and often to build trust.</li><li>• Ensure consistency of message.</li><li>• Encourage two-way communication.</li><li>• Provide information to meet specific needs of employees.</li></ul>
Align goals and measures with agency and departmentwide goals.	<ul style="list-style-type: none"><li>• Each of the agency's strategic plan goals is supported by performance measures.</li><li>• Measures align with departmentwide goals.</li><li>• Goals and measures cascade from the corporate level to the lowest level of the agency.</li></ul>
Demonstrate results.	<ul style="list-style-type: none"><li>• Includes a combination of output- and outcome-oriented measures.</li><li>• Measures are clearly defined.</li><li>• Provides trend data to demonstrate progress against targeted performance.</li></ul>

Source: GAO.

According to Joint Staff officials, the Chairman of the JROC has been a driving force in positioning the JROC to take on the responsibility of aligning needs and balancing risk and resources, which fulfills one of the key steps for results-oriented management, but the approach is still new and officials have not completed all of the steps that facilitate institutional acceptance and implementation of the new approach. The Joint Staff has begun the process of change by articulating a clear rationale for change—that the JROC can more effectively represent the warfighters' requirements and make strategic trade-off decisions as budgets stay flat or decrease by taking a more active role in shaping an affordable joint force. However, best practices for managing a results-oriented change state that goals and procedures should be communicated to stakeholders throughout the organization so that they understand how they should implement the new approach and how the organization will measure progress. The Joint Staff issued guidance that outlines new procedures intended to establish an approach for prioritizing capabilities from a joint perspective and to increase the timeliness of JCIDS reviews by categorizing proposals according to the level of urgency of the need and streamlining procedures for urgent needs. However, the guidance does not clearly outline criteria and measures for demonstrating progress

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toward meeting the goal of aligning needs with available resources or clearly communicate the goals and the analytic approach envisioned to support JROC decision making. Further, the guidance does not describe how the proposed change will affect the services, combatant commands, and other stakeholders. Finally, the JCIDS guidance does not establish criteria and measures for demonstrating progress toward the goal of creating a balanced portfolio of programs that takes into account needs, risks, and available resources, nor do other documents provided to us by DOD. Measures such as the proportion of requirements that address joint priority needs versus service-specific needs, the savings obtained through the elimination of redundant capabilities, and the comparison of estimated costs of a proposed program with the actual costs of operating the program over its life cycle could be helpful in assessing whether the process is balancing requirements with available resources or whether further adjustments to the process are needed.

Considering new capabilities across the department in the context of joint capability areas can help DOD begin to identify priorities for future investment. However, unless the Joint Staff takes steps to define and institutionalize the new approach by adhering to the key principles of results-oriented management, it is not clear whether the current momentum in implementing an analytic approach through JCIDS will be sustained.

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## JROC Has Not Always Had Complete Information on Future Costs to Sustain Proposed Capabilities before Approving Documentation for Program Development

Even though sustainment costs make up a significant portion of the total ownership costs of a weapon system, the JROC has not always had complete information on such costs when validating documentation used in the decision to initiate program development. "Sustainment" as a category represents a range of activities intended to ensure the availability of weapon systems and to support their operations, including some logistics and personnel services. During the identification of capability gaps and consideration of selected alternatives, it is difficult for the sponsors to provide detailed information on program capabilities and cost estimates. As a major defense acquisition program moves toward the development stage, JCIDS requires that more complete and accurate sustainment information be presented in capability development documents. According to DOD officials, decision makers need more accurate cost information to assess whether the benefit of a proposed

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capability justifies the cost of sustaining the capability over its life.<sup>22</sup> JCIDS guidance requires that sponsors of potential major defense acquisition programs<sup>23</sup> include sustainment information in capability development documents,<sup>24</sup> which detail proposed solutions to fulfill capability needs.

The JROC has generally relied on sponsor-provided assessments of sustainment information in the capability development documents to make its validation decisions, but these documents have not always included all the information suggested in JCIDS guidance or sufficient detail to enable the JROC to assess the quality of the information. A DOD manual<sup>25</sup> regarding the development of sustainment information suggests that when sustainment requirements and underlying assumptions are not clearly documented, subsequent decisions about the project may be based on incorrect assumptions. Prior GAO work<sup>26</sup> suggests that gaps in joint warfighting capabilities and proposals to fulfill the gaps should be clearly identified to decision-making bodies, such as the JROC, to inform deliberations. Further, information should be complete so those making the important decisions may do so as effectively as possible.

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<sup>22</sup>Our prior work has found that the operation and support costs of sustaining a fielded system account for about 70 percent of a system's life cycle costs. See [GAO-10-717](#).

<sup>23</sup>During our review, the Joint Staff revised guidance on sustainment reporting requirements. Under the guidance in effect through December 2011, which we used for our review, sustainment metrics were to be developed for all acquisition category I programs involving materiel solutions and acquisition category II and below programs as determined by the sponsor. See *Manual for the Operation of the Joint Capabilities Integration and Development System*, app. B to enc. B, para. 2 (February 2009, updated Jan. 31, 2011) (hereinafter cited as *JCIDS Manual* (Jan. 31, 2011)). According to the recently revised *JCIDS Manual*, sustainment metrics must be developed for all acquisition category I programs. The manual also states that acquisition category II and below programs, with materiel solutions, shall include the sustainment metrics or sponsor-defined sustainment metrics. See *JCIDS Manual*, app. E to enc. B, para. 2 (Jan. 19, 2012). Under both versions of the manual, these metrics are developed in the form of key performance parameters and key system attributes.

<sup>24</sup>The *JCIDS Manual* required the inclusion of sustainment information in capability development documents beginning in 2007.

<sup>25</sup>DOD, *Reliability, Availability, Maintainability, and Cost Rationale Report Manual* (Washington, D.C.: June 1, 2009).

<sup>26</sup>GAO, *Defense Acquisition: Employing Best Practices Can Shape Better Weapon System Decisions*, [GAO/T-NSIAD-00-137](#) (Washington, D.C.: Apr. 26, 2000).

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JCIDS guidance requires sponsors of major defense acquisition programs to address sustainment based on four metrics—materiel availability, operational availability, reliability, and ownership cost (renamed operation and support cost in January 2012).<sup>27</sup> The guidance includes a series of criteria, which are listed as review criteria in the guidance. The criteria provide additional information on each metric. For example, JCIDS guidance lists as review criteria for the materiel availability metric whether there is a clear definition and accounting for the intended service life of the program, an identification of planned downtime, and a comparison of downtime value with experiences of other analogous systems, among other criteria. Table 2 outlines examples of key review criteria within each of the four sustainment metrics under the guidance in effect through December 2011.<sup>28</sup>

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<sup>27</sup>See *JCIDS Manual*, app. B to enc. B (Jan. 31, 2011). See also *JCIDS Manual*, app. E to enc. B (Jan. 19, 2012). The version of the *JCIDS Manual* in effect through December 2011 defined “materiel availability” as a measure of the percentage of the total inventory of a system that is operationally capable (ready for tasking) of performing an assigned mission at a given time, based on materiel condition; “operational availability” as a measure of the percentage of time that a system or group of systems within a unit are operationally capable of performing an assigned mission and can be expressed as (uptime/(uptime + downtime)); “reliability” as a measure of the probability that the system will perform without failure over a specific interval and must be sufficient to support the warfighting capability needed; and “ownership cost” as a measure that provides balance to the sustainment solution by ensuring that the operations and support costs associated with availability are considered in making decisions, and should cover the planned lifecycle timeframe, consistent with the timeframe used in the materiel availability metric. The revised guidance largely maintained these descriptions.

<sup>28</sup>The revised guidance issued in January 2012 includes many of the same review criteria. See *JCIDS Manual*, app. E to enc. B (Jan. 19, 2012). As previously noted, the revised guidance renamed the ownership cost metric as operation and support cost.

**Table 2: Examples of Review Criteria for Each of the Four Sustainment Metrics**

<b>Sustainment metric</b>	<b>Total number of review criteria</b>	<b>Examples of review criteria</b>
Materiel availability	8	<ul style="list-style-type: none"> <li>Accounts for the total population of end items being acquired for operational use</li> <li>Identifies and includes planned time periods during which the weapon system is not operationally available to perform an assigned mission</li> <li>Identifies sources of data and models used to establish and track materiel availability</li> </ul>
Operational availability	5	<ul style="list-style-type: none"> <li>Provides specific definitions for what constitutes failure</li> <li>Addresses time periods during which the weapon system is nonfunctional as a result of failure</li> <li>Addresses specific issues associated with failure, including time needed to recover a weapon system after suffering a failure and time to perform diagnostics</li> </ul>
Reliability	8	<ul style="list-style-type: none"> <li>Defines how time intervals for assessing the weapon system will be measured</li> <li>Identifies sources for baseline reliability data and addresses whether the proposed reliability value is consistent with comparable systems</li> <li>Addresses whether the proposed reliability of the weapon system is consistent with intended operational use of system</li> </ul>
Ownership cost	9	<ul style="list-style-type: none"> <li>Defines through analysis which type of ownership cost structure was used for assessing program cost</li> <li>Includes all required costs for a program, regardless of funding source</li> <li>Includes an approach to monitor, collect, and validate operation and support cost data</li> </ul>

Source: GAO analysis of DOD guidance.

Program sponsors provide initial information on the sustainment metrics for proposed capability solutions when they submit a capability development document, one of three capability documents the JROC considers in its review and potential validation of capability proposals. Officials from both the Joint Staff and the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics review the capability development documents and, according to officials, verify that all required sustainment elements have been included before the documents are validated by the JROC. Officials also provide their independent

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assessments of the quality of the cost estimates to the JROC.<sup>29</sup> Officials from the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics said they work with program sponsors to ensure that life cycle sustainment planning and costs are as accurate as possible. Officials from the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics and the Joint Staff told us that they consider reported sustainment information important to a program's development and review all reported information.

The *JCIDS Manual* notes that listed criteria, information, and activities cannot necessarily be applied to all systems. Sponsors have a degree of latitude in determining which items are applicable for their specific concept, technology, system, or combination of these. For example, a program sponsor for a major defense acquisition program is required to report a measure for operational availability, but would not necessarily have to report on the respective criteria, such as addressing downtime associated with failure, including recovery time or movement of maintenance teams to the work site. Because the guidance does not specifically require program sponsors to report on the individual criteria, they generally include some, but not all, of the individual criteria.

Our analysis of six capability development documents found that all of the documents provided information on all of the required sustainment metrics. However, we found that the completeness of information reported for all of the metrics' key criteria varied. Specifically, none of the documents included complete information for each of the four sustainment metrics' review criteria elements. In addition, each of the documents had some common omissions; for example, none of the six capability documents we reviewed included information on all nine of the ownership cost metric's criteria elements. Further, several of these documents only included information on one criteria element for a single metric, and none reported information on all of the elements for any of the metrics. Finally, when information on the metrics' key criteria was provided, the level of detail varied among the documents. For example, for some criteria, some documents provided a paragraph of supporting information and analysis whereas others provided single-sentence

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<sup>29</sup>The Joint Staff Directorate for Logistics (J4), Maintenance Division, is the Joint Staff entity responsible for evaluating the sustainment key performance parameter. In this report, GAO refers to the sustainment key performance parameter as sustainment information.

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responses that did not provide as substantial detail for the supporting criteria. According to officials, for the capability documents we reviewed, there were cases in which information on some of the suggested criteria should have been included but were not.

Joint Staff officials and officials from the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics noted that while criteria for each of the required sustainment metrics may not be applicable to every program, it would be beneficial to the JROC if the services reported on the criteria for each metric outlined in the guidance or indicated a reason why a specific criterion was not applicable. Officials from the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics told us that when they conduct their reviews of sponsor-reported sustainment information, not all of the supporting documentation they need for a thorough independent assessment is available in the capability development document. These officials said that they can generally find detailed documentation on sustainment planning and costs from sources outside of the JCIDS process, but that the information is not always readily available within the JCIDS database. Ultimately, review efficiency could be improved if all the information were available in the JCIDS database. Updated JCIDS guidance issued in January 2012 still does not clearly require program sponsors to report on the individual criteria for each of the sustainment metrics. The Joint Staff is developing a new reporting tool intended to provide a standard format for reporting sustainment information. The tool will require program sponsors to at least minimally address each of the four sustainment metrics in order to submit the capability development document for review through JCIDS, according to officials. However, officials stated that this tool will not require that sponsors address each of the individual criteria elements within the four sustainment metrics.

Without complete and detailed information on each of the individual criteria elements, the JROC may not be in the best position to weigh the costs and benefits of a proposal within a capability portfolio. The quality and completeness of the data that sponsors provide through the capability development document in the JCIDS process will become more important as the JROC increases its examination of the benefits of programs balanced against their associated costs. As we have previously reported, incomplete and inaccurate sustainment information has been a

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long-standing problem for DOD.<sup>30</sup> In November 2009, a DOD team assessing weapon system acquisition reform reported that DOD lacked valid, measurable sustainment information to accurately assess how programmatic decisions affected life cycle costs and made recommendations to improve weapon system life cycle sustainment.<sup>31</sup> Until the JROC requires program sponsors to report complete sustainment information, including both the overall metrics and the supporting criteria, the JROC may not always have the complete and detailed information it needs to make the most informed decisions.

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## Conclusions

The prospect of declining budgets has amplified the need for DOD to prioritize among capability gaps and to use its resources to maximize the capabilities of the joint force. The Chairman of the JROC has begun to take steps to better balance risks across the joint force by examining proposals for new capabilities within the context of existing joint capability areas and to consider affordability, including sustainment costs, as a factor in validating requirements proposals. The revised approach is new and evolving, but in order for it to achieve the intended results of prioritizing capability needs and aligning those needs with available resources, the Joint Staff needs to take steps to fully develop the approach and document it more explicitly. Specifically, DOD does not yet have a documented implementation plan with measures of success that support change. In addition, having good sustainment information is a key element needed to improve JCIDS's success over the long term. Sustainment costs historically represent 70 percent of a system's life cycle costs, but DOD has been making decisions with incomplete information on sustainment and does not require that sponsors address all of the criteria outlined in JCIDS guidance. Until the JROC has developed and fully documented an approach for prioritizing capability needs and aligning these needs with available resources and has complete sustainment information associated with the operation of new capabilities, it will not be in the best position to align resources with priorities or balance costs with benefits in affordable investment plans.

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<sup>30</sup>[GAO-10-717](#).

<sup>31</sup>DOD, *Weapon System Acquisition Reform Product Support Assessment* (Washington, D.C.: Nov. 1, 2009). This report was produced by a DOD Product Support Assessment Team led by the Office of the Deputy Under Secretary of Defense for Logistics and Materiel Readiness.

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## Recommendations for Executive Action

To help sustain momentum for efforts to bring a capability portfolio approach to the JCIDS process and to improve the quality of sustainment information reported in capability development documents, we recommend that the Vice Chairman of the Joint Chiefs of Staff, as the JROC Chairman, take the following two actions:

- Revise and implement guidance to reflect changes to the JCIDS process as well as to establish criteria and measures for determining the relative importance of capability needs across capability areas and assessing progress.
- Explicitly require that program sponsors address each of the criteria outlined for the individual sustainment metrics when submitting capability development documents.

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## Agency Comments and Our Evaluation

The Joint Staff provided written comments on a draft of this report. In its comments, the Joint Staff said our report represented a fair and objective assessment of the JCIDS process. It partially agreed with both of our recommendations, citing ongoing and planned changes to the joint requirements development process. However, the comments did not detail any specific steps that DOD plans to take to address our recommendations. The comments are reprinted in their entirety in appendix III. The Joint Staff also provided technical comments, which we have incorporated into the report as appropriate.

The Joint Staff partially concurred with our recommendation that the Vice Chairman of the Joint Chiefs of Staff revise and implement guidance to reflect changes to the JCIDS process as well as to establish criteria and measures for determining the relative importance of capability needs across capability areas and assessing progress. In its written response, the Joint Staff described recent initiatives to substantially change the joint requirements development process to require that capability requirements be evaluated within a capability portfolio by Functional Capability Boards, the Joint Capabilities Board, and the JROC. The Joint Staff also discussed its planned efforts to improve prioritization of capability needs and stated that JROC reviews will incorporate an evolving portfolio assessment tool. The Joint Staff expects that the departmentwide priorities outlined in DOD's strategic guidance as well as a revised process for assessing capability gaps and combatant command priorities will enable the JROC to make more informed decisions about priorities. While we agree that the Joint Staff has taken important steps to enable prioritization of capabilities, such as addressing prioritization in a new enclosure in its revised *JCIDS Manual*, the enclosure does not explicitly

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outline implementation processes. We continue to believe that clear guidance that establishes criteria for determining priority levels and measures for demonstrating progress will be essential in sustaining momentum toward the goal of creating a balanced portfolio of programs that takes into account needs, risks, and available resources. Moreover, providing guidance that fully documents the new procedures for assigning priority levels to capability gaps is an essential step toward clarifying how the procedures will be implemented.

The Joint Staff also partially concurred with our recommendation that the Vice Chairman of the Joint Chiefs of Staff explicitly require that program sponsors address each of the criteria outlined for the individual sustainment metrics when submitting capability development documents. According to its written comments, the Joint Staff criteria for the sustainment metrics were designed to guide the development of requirements, but were not intended to be prescriptive because individual programs are unique and criteria applicable to one problem may not apply to another. We agree that each of the criteria may not be applicable to every program. However, if program sponsors addressed each criterion in some manner, including explaining that a criterion is not applicable to the program, the JROC would be assured that program sponsors considered all criteria when developing program proposals. Further, the Joint Staff commented that JCIDS reviews of capability development documents by Joint Staff and Office of the Secretary of Defense officials ensure that a document is thoroughly vetted for consideration by the JROC. It suggested that the inclusion of analyses and rationale for sustainment metrics development in capability development documents might be duplicative because this information is contained in acquisition documents that exist outside of JCIDS. However, as we noted in our report, the documents that contain the analysis and rationale for the required sustainment metrics are not necessarily reviewed by or available to the JROC members during their consideration of a capability development document. We continue to believe that the inclusion of a sponsor-provided rationale for each metric criterion would enhance the thoroughness and efficiency of the JROC's review of sustainment information through JCIDS.

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We are sending copies of this report to interested congressional committees, the Secretary of Defense, the Vice Chairman of the Joint Chiefs of Staff, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

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If you or your staff have any questions about this report, please contact me at (202) 512-3489 or [pendletonj@gao.gov](mailto:pendletonj@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

A handwritten signature in black ink that reads "John H. Pendleton". The signature is written in a cursive style with a long horizontal stroke at the end.

John Pendleton  
Director, Defense Capabilities and Management

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*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 Thad Cochran  
Ranking Member  
Subcommittee on Defense  
Committee on Appropriations  
United States Senate

The Honorable Howard P. "Buck" McKeon  
Chairman  
The Honorable Adam Smith  
Ranking Member  
Committee on Armed Services  
House of Representatives

The Honorable C.W. "Bill" Young  
Chairman  
The Honorable Norman D. Dicks  
Ranking Member  
Subcommittee on Defense  
Committee on Appropriations  
House of Representatives

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# Appendix I: Observations on Reporting Provisions in the National Defense Authorization Act for Fiscal Year 2011

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Section 862 of the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 requires the Comptroller General to carry out a comprehensive review of the Joint Capabilities Integration and Development System (JCIDS) and to submit to the congressional defense committees a report on the review.<sup>1</sup> This appendix, in conjunction with the letter, addresses each of the reporting provisions as described in the act. Specifically, section 862 requires the following contents for the review:

**Purpose.** The purpose of the review is to evaluate the effectiveness of JCIDS in achieving the following objectives:

- Timeliness in delivering capability to the warfighter.
- Efficient use of the investment resources of the Department of Defense (DOD).
- Control of requirements creep.<sup>2</sup>
- Responsiveness to changes occurring after the approval of a requirements document<sup>3</sup> (including changes to the threat environment, the emergence of new capabilities, or changes in the resources estimated to procure or sustain a capability).
- Development of the personnel skills, capacity, and training needed for an effective and efficient requirements process.

**Matters considered.** In performing the review, the Comptroller General is required to gather information on and consider the following matters:

- The time that requirements documents take to receive approval through JCIDS.
- The quality of cost information considered in JCIDS and the extent of its consideration.

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<sup>1</sup>See Pub. L. No. 111-383, § 862(a) (2011). The statute specifically defined JCIDS by reference to Chairman of the Joint Chiefs of Staff Instruction 3170.01G. See § 862(c)(1).

<sup>2</sup>Requirements creep is defined in the statute as “the addition of new technical or operational specifications after a requirements document is approved.” See § 862(c)(3).

<sup>3</sup>The term requirements document is defined in the statute as “a document produced in JCIDS that is provided for an acquisition program to guide the subsequent development, production, and testing of the program and that—(A) justifies the need for a materiel approach, or an approach that is a combination of materiel and non-materiel, to satisfy one or more specific capability gaps; (B) details the information necessary to develop an increment of militarily useful, logistically supportable, and technically mature capability, including key performance parameters; or (C) identifies production attributes required for a single increment of a program.” See § 862(c)(2).

- The extent to which JCIDS establishes a meaningful level of priority for requirements.
- The extent to which JCIDS is considering trade-offs between cost, schedule, and performance objectives.
- The quality of information on sustainment considered in JCIDS and the extent to which sustainment information is considered.
- An evaluation of the advantages and disadvantages of designating a commander of a unified combatant command for each requirements document for which the Joint Requirements Oversight Council (JROC) is the validation authority to provide a joint evaluation task force to participate in a materiel solution and to
  - provide input to the analysis of alternatives; participate in testing (including limited user tests and prototype testing); provide input on a concept of operations and doctrine; provide end user feedback to the resource sponsor; and participate, through the combatant commander concerned, in any alteration of the requirement for such solution.

Section 862 also provided definitions for JCIDS, requirements document, requirements creep, and materiel solution.<sup>4</sup>

Tables 3 through 12 contain our response to each of the requirements mandated by the Ike Skelton National Defense Authorization Act for Fiscal Year 2011.<sup>5</sup> The provision mandating our report defined the JCIDS process by referring to the JCIDS guidance in effect from March 2009 through December 2011.<sup>6</sup> Accordingly, our response to the mandated elements as presented in this appendix generally focuses on JCIDS under that guidance. However, we also provide some information relating to JCIDS as described in the revised guidance issued in January 2012. In addition, our assessments generally focused on those programs that were determined to be JROC-interest, or those that were designated as major defense acquisition programs or major automated information systems and capabilities that have a potentially significant impact on interoperability in allied and coalition operations. Generally, these programs have greater costs or are more complex than smaller programs,

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<sup>4</sup>See § 862(c).

<sup>5</sup>See Pub. L. No. 111-383, § 862.

<sup>6</sup>See § 862(c)(1) (defining JCIDS as “the system for the assessment, review, validation, and approval of joint warfighting requirements that is described in Chairman of the Joint Chiefs of Staff Instruction 3170.01G”).

and therefore provide an opportunity to assess the effectiveness of more aspects of the JCIDS process.

**Table 3: Section 862(b)(1)(A)—Evaluate the Effectiveness of JCIDS in Achieving Timeliness in Delivering Capability to the Warfighter**

Summary assessment	The JCIDS guidance in effect through December 2011 did not directly facilitate the timely delivery of capabilities to the warfighter. Joint Staff officials are implementing new procedures to expedite reviews of urgent needs and establishing targets for anticipated delivery times for weapon systems to facilitate timely delivery of capabilities to meet needs.
Key GAO observations	JROC review and validation of capability needs validated in 2010 and 2011 ranged from 3 months to 17 months. Officials told us that the length of time it has taken for a capability need to be validated through JCIDS depended on several factors, including the quality and completeness of the original proposal and the maturity of the technology involved. According to officials, JCIDS reviews generally did not delay or expedite the delivery of a capability; instead, the development phases of the acquisition system took the most time between identifying a need and delivering a capability. JCIDS guidance in effect through December 2011 did not require the JROC to approve a weapon system’s anticipated schedule when making decisions about validating the related requirements documents, and according to Joint Staff officials, the JROC typically has not tried to influence the delivery dates of capabilities. Recent changes to JCIDS processes require the JROC to set targets for the anticipated delivery schedule when validating a weapon system’s capability development document and to revalidate the document if the delivery target is altered by more than 12 months. In addition, JCIDS now tailors requirements reviews according to the urgency of the need. <sup>a</sup>
GAO scope and methodology	To evaluate the extent to which JCIDS had contributed to the timely delivery of capabilities to the warfighter, we reviewed policy documents about the joint requirements and acquisition processes. Using the Joint Staff’s database of joint requirements documents reviewed through JCIDS, we selected a nonprobability sample of 12 requirements documents for major weapon systems that the JROC reviewed from May 1, 2010, through May 31, 2011. We focused on major weapon systems because they were reviewed through each of the JCIDS phases, whereas other weapon systems are generally reviewed at the Joint Capabilities Board level but not by the JROC. Specifically, we analyzed the time that elapsed during the JCIDS review of four initial capability documents, five capability development documents, and three capability production documents. We interviewed DOD, Joint Staff, and service officials with detailed knowledge of the programs and the review process to confirm our findings. Finally, we reviewed JCIDS guidance issued in January 2012.

Sources: DOD and GAO.

<sup>a</sup>See CJCSI 3170.01H, enc. A, para. 1(d)(2) (Jan. 10, 2012), and *JCIDS Manual*, enc. E (Jan. 19, 2012). Specifically, the guidance establishes different document staffing and validation processes where a need is a joint urgent operational need or a joint emergent operational need. In 2005, DOD established an urgent-needs, expedited review process outside JCIDS because the JCIDS process was ineffective at addressing urgent wartime needs; the revised JCIDS instruction cancels the instruction driving that process. See CJCSI 3170.01H, para. 2(b) (Jan. 10, 2012) (canceling Chairman of the Joint Chiefs of Staff Instruction 3470.01, Rapid Validation and Resourcing of Joint Urgent Operational Needs (JUONs) in the Year of Execution (July 15, 2005)).

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Table 4: Section 862(b)(1)(B)—Evaluate the Effectiveness of JCIDS in Achieving Efficient Use of the Investment Resources of the Department of Defense

Summary assessment	The JROC has not been effective at prioritizing capability needs or guiding the efficient use of resources to meet joint capability needs and balance resources and risks. The Joint Staff is taking steps to improve prioritization by analyzing joint requirements in the context of alternative existing and proposed programs within capability areas.
Key GAO observations	As required by law and reflected in Joint Staff guidance, the JROC has the responsibility to assist the Chairman of the Joint Chiefs of Staff in developing and assigning priority levels for joint military requirements and to help ensure that resource levels associated with those requirements are consistent with the level of priority. However, the JROC has not explicitly considered requirements' affordability in the context of DOD's budget. As we have reported since 2008, the JROC has not prioritized requirements, considered redundancies across proposed programs, or prioritized and analyzed capability gaps consistently through JCIDS. A key reason it did not prioritize needs was that the JROC reviewed requirements separately and largely left prioritization and trade-off decisions to the military services. <sup>a</sup> Further, DOD's ability to use JCIDS to ensure the efficient use of resources within and among the services has been hampered by the JROC's inability to enforce joint priorities in service budget decisions. According to officials, the Joint Staff has recently initiated efforts to assess the importance of each capability proposal JCIDS reviews in relation to existing capabilities and other related capability needs through a "capability portfolio" approach. Criteria for validation of a proposal would include the uniqueness of the proposal and its costs and benefits. JCIDS's Functional Capabilities Boards are already providing this assessment to the JROC for its consideration in closed meetings. However, guidance on how the Functional Capabilities Boards are to assess priorities among capabilities is not specific as to how to identify joint priorities. See the section of our letter on the Joint Staff's efforts to prioritize capability needs for additional information.
GAO scope and methodology	To evaluate the effectiveness of the JCIDS process in efficiently investing DOD's resources, we reviewed relevant legislation and policy documents and guidance and discussed issues with senior DOD officials. We also reviewed previous GAO assessments of JCIDS and acquisition issues detailed in multiple reports, including <a href="#">GAO-11-502; Defense Acquisitions: DOD's Requirements Determination Process Has Not Been Effective in Prioritizing Joint Capabilities</a> , <a href="#">GAO-08-1060</a> (Washington, D.C.: Sept. 25, 2008); and <i>High-Risk Series: An Update</i> , <a href="#">GAO-11-278</a> (Washington, D.C.: February 2011).

Sources: DOD and GAO.

<sup>a</sup>GAO, *DOD Weapon Systems: Missed Trade-off Opportunities During Requirements Reviews*, [GAO-11-502](#) (Washington, D.C.: June 16, 2011).

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**Table 5: Section 862(b)(1)(C)—Evaluate the Effectiveness of JCIDS in Achieving Control of Requirements Creep—and Section 862(b)(1)(D)—Evaluate the Effectiveness of JCIDS in Achieving Responsiveness to Changes Occurring after the Approval of a Requirements Document (Including Changes to the Threat Environment, the Emergence of New Capabilities, or Changes in the Resources Estimated to Procure or Sustain a Capability)**

Summary assessment	The JCIDS process does not actively prevent or encourage requirements creep, <sup>a</sup> as these changes are driven by the program sponsor and may not appear during review of documents.
Key GAO observations	<p>We have previously reported that despite the importance of well-developed and stable requirements for obtaining good weapon program outcomes, program requirements often change during development. For example, the threat the program originally addressed may change, or the user and acquisition communities may change opinions on what is needed from a program.<sup>b</sup> Programs that modified critical system characteristics after development start experienced higher levels of cost growth and longer delays in delivering capabilities. The JROC typically oversees changes only for those system characteristics considered critical to delivering a capability.<sup>c</sup> In March 2011, we reported that 21 of 39 major defense acquisition programs we assessed had at least one change to a critical characteristic, either increasing or decreasing a requirement.<sup>d</sup> Specifically, 10 of the 21 programs reported adding or enhancing a critical characteristic; 3 reported reducing, deferring, or deleting a critical characteristic; and 8 reported making both types of changes.</p> <p>The acquisition community has taken some steps to address requirements creep and changes made to a program's attributes by establishing configuration steering boards for major acquisition programs to review and limit requirements changes and avoid cost increases. However, as we reported in July 2011, individual programs varied in how they used these boards to control requirements and mitigate cost and schedule risks.<sup>e</sup></p>
GAO scope and methodology	To evaluate the effectiveness of JCIDS in controlling requirements creep and responding to changes, we reviewed policy documents on the joint requirements process and the acquisition system and our prior reviews of JCIDS and acquisition issues, including <a href="#">GAO-11-233SP</a> .

Sources: DOD and GAO.

<sup>a</sup>We asked officials about their perspectives on the responsiveness of JCIDS to changes occurring after the approval of a requirements document and they had no specific insights to offer. Other than the examples presented in this table, neither we nor officials were able to identify specific examples regarding the effectiveness of JCIDS in achieving responsiveness to changes.

<sup>b</sup>GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs*, [GAO-08-467SP](#) (Washington, D.C.: Mar. 31, 2008).

<sup>c</sup>Specifically, changes may only appear before the JROC and the Joint Capabilities Board for validation if they affect the key performance parameters, key system attributes, or other performance attributes. Changes to characteristics of a lower priority are typically addressed by the military services. JROC-interest programs with approved capability development and production documents must return to the JROC if they experience certain cost growth.

<sup>d</sup>GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs*, [GAO-11-233SP](#) (Washington, D.C.: Mar. 29, 2011).

<sup>e</sup>GAO, *Defense Acquisitions: DOD Can Improve Its Management of Configuration Steering Boards*, [GAO-11-640](#) (Washington, D.C.: July 7, 2011).

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**Table 6: Section 862(b)(1)(E)—Evaluate the Effectiveness of JCIDS in Achieving Development of the Personnel Skills, Capacity, and Training Needed for an Effective and Efficient Requirements Process**

Summary assessment	In response to a requirement in the John Warner National Defense Authorization Act for Fiscal Year 2007, <sup>a</sup> DOD developed and implemented a training program for personnel who develop requirements for major defense acquisition programs. DOD is currently planning to expand the training program to personnel involved in developing joint requirements for programs that do not meet the threshold to be major defense acquisition programs. This program helps to develop the personnel skills, capacity, and training for the requirements process. <sup>b</sup>
Key GAO observations	<p>The Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, working with the Defense Acquisition University, developed the requirements management certification training program to enhance the ability of individuals to write, review, and validate requirements. Defense Acquisition University officials reported that about 1,000 personnel with responsibility for generating requirements for major defense acquisition programs took the requirements development training in 2008. Since then, training has been available to individuals involved in smaller programs, but DOD officials believe that the acquisition community's ability to identify and document joint requirements would be improved if all staff completed the training and applied the concepts in developing proposals.</p> <p>The curriculum addresses multiple topics related to generating requirements, including the JCIDS process for reviewing and approving documents, the collaboration between JCIDS and the Defense Acquisition System, and DOD's resource allocation process. The program presents a series of courses that can be tailored to each individual's level of involvement in the requirements generation process. The Defense Acquisition University provides the training courses and tracks individual completion of each course, according to officials, but beyond the required completion of DOD training, each component determines the specific steps necessary to certify requirements managers, such as additional training and on-the-job experience.</p>
GAO scope and methodology	To evaluate the effectiveness of JCIDS in developing the personnel skills, capacity, and training needed for an effective and efficient requirements process, we reviewed relevant legislation and Joint Staff policy documents to identify the requirement to implement training for personnel involved with developing joint requirements. We interviewed officials from the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics; the Joint Staff; and the Defense Acquisition University to discuss DOD's approach for implementing the training, and we interviewed service and combatant command officials to discuss the extent to which the required training had been implemented.

Sources: DOD and GAO.

<sup>a</sup>See Pub. L. No. 109-364, § 801 (2006).

<sup>b</sup>Neither we nor officials identified any specific programs under JCIDS itself to develop the personnel skills, capacity, and training for the requirements process. Officials identified no specific DOD-wide development programs other than the one described in the table.

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**Table 7: Section 862(b)(2)(A)—the Time That Requirements Documents Take to Receive Approval through JCIDS**

Summary assessment	JCIDS review of documents validated from May 1, 2010 through May 31, 2011 took an average of 9 months to receive approval. Joint Staff and service officials believed that the length of the review period was generally appropriate given the cost and complexity of the capabilities proposed. New procedures designed to improve responsiveness set goals for the duration of JCIDS reviews, and are based on the urgency of the need.
Key GAO observations	<p>The average of 9 months for review of documents within JCIDS is consistent with our previous findings. We reported in 2008 that it took 9.5 months on average for the JROC to validate capability proposals submitted from 2003 through 2005 and 8 months for submissions from 2006 through 2008.<sup>a</sup></p> <p>JCIDS guidance in effect through December 2011 specified timeliness goals for the initial commenting and adjudication phases of the process, but not for the later review phases.<sup>b</sup> However, goals for the commenting and adjudication phases were not always met. For most programs we analyzed, reviews exceeded timeliness goals for the commenting or adjudication periods, or both, by about 25 percent or more. The duration of the later review phases varied and accounted for the most time between submission of a proposal and validation. According to Joint Staff and service officials, the reasons for extended review times included need for additional information from the documents' service sponsors and the lack of sponsor personnel available to address comments and approve changes. We previously reported that given the size, complexity, and level of funding associated with a major weapon system, the investment of time for a thorough, joint review may be warranted.<sup>c</sup></p>
GAO scope and methodology	To evaluate the time it took to review and approve requirements documents through JCIDS, we reviewed policy documents on the JCIDS process. We selected a nonprobability sample of 12 requirements documents—4 initial capabilities documents, 5 capability development documents, and 3 capability production documents—for major weapon systems <sup>d</sup> validated from May 1, 2010, through May 31, 2011, to determine the time it took the JROC to approve them. We focused on major weapon systems because they were reviewed through each of the JCIDS phases. We interviewed Joint Staff and service officials to discuss the time frames, including factors that contributed to timelines.

Sources: DOD and GAO.

<sup>a</sup>GAO, *Defense Acquisitions: DOD's Requirements Determination Process Has Not Been Effective in Prioritizing Joint Capabilities*, [GAO-08-1060](#) (Washington, D.C.: Sept. 25, 2008).

<sup>b</sup>See *JCIDS Manual*, enc. D (Jan. 31, 2011). These reviews are performed by the Functional and Joint Capabilities Boards and the JROC.

<sup>c</sup>[GAO-08-1060](#).

<sup>d</sup>We selected requirements for major weapon systems because these requirements are validated by the JROC whereas requirements for small programs are generally delegated to lower validation authorities.

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**Table 8: Section 862(b)(2)(B)—the Quality of Cost Information Considered in JCIDS and the Extent of Its Consideration**

Summary assessment	The cost information considered during JCIDS reviews has not always been reliable, and the extent to which JCIDS has considered cost information for proposed programs was limited to funding considerations.
Key GAO observations	<p>As we reported in June 2011, the services did not consistently provide high-quality resource estimates to the JROC to aid its validation decisions and cost estimates were often unreliable when assessed against best practices criteria.<sup>a</sup> In some cases, the quality of service estimates varied from those validated by the services' cost analysis agencies to those that represented less rigorous rough-orders-of-magnitude.<sup>b</sup> In most cases, the services had not effectively conducted uncertainty and sensitivity analyses, which establish confidence levels for resource estimates, based on the knowledge available, or examined the effects of changing assumptions and ground rules, all of which could further the JROC's efforts to provide a sound basis for making cost, schedule, and performance trade-off decisions. Moreover, we reported that the JROC had not explicitly considered a requirement's affordability in a broader context during JCIDS reviews.</p> <p>Owing to the poor quality of the estimates of programs we reviewed, we recommended in the June 2011 report that the Vice Chairman of the Joint Chiefs of Staff require that capability sponsors present resource estimates that have been reviewed by a military service's cost analysis organization to ensure that best practices are being followed. The Joint Staff partially concurred with our recommendation, stating that program office cost estimates were compared to independent cost estimates during reviews of capability development documents. However, it is not clear whether the JCIDS guidance issued in January 2012 fully responds to our recommendation from the June 2011 report. Officials told us that the guidance does not explicitly address the reliability of cost information, but according to Joint Staff officials, the JROC intends to rely more heavily on estimates developed by the Director of Cost Assessment and Program Evaluation to inform its deliberations.</p>
GAO scope and methodology	To evaluate the quality of cost information considered in JCIDS and the extent of its consideration, we relied on prior GAO work— <a href="#">GAO-11-502</a> —that addressed the extent to which the JROC considered cost information. We also interviewed Joint Staff and Office of the Under Secretary of Defense for Acquisition, Technology and Logistics officials, and reviewed JCIDS guidance to characterize the JROC's approach for addressing our prior recommendation.

Sources: DOD and GAO.

<sup>a</sup>GAO, *DOD Weapon Systems: Missed Trade-off Opportunities During Requirements Reviews*, [GAO-11-502](#) (Washington, D.C.: June 16, 2011).

<sup>b</sup>A rough-order-of-magnitude estimate is a quick, high-level estimate that generally involves less time and effort than a budget-quality estimate.

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**Table 9: Section 862(b)(2)(C)—the Extent to Which JCIDS Establishes a Meaningful Level of Priority for Requirements**

Summary assessment	JCIDS has not established a meaningful level of priority for joint requirements, but it is adopting a new approach to prioritize joint requirements within the context of current capabilities.
Key GAO observations	<p>In 2008, we reported that JCIDS was ineffective in setting priorities across the services and that virtually all capability proposals submitted to JCIDS had been approved or validated.<sup>a</sup> In June 2011, we reported that the JROC still did not prioritize requirements during the JCIDS process, consider redundancies across proposed programs, or prioritize and analyze capability gaps in a consistent manner.<sup>b</sup> DOD officials told us that prioritization across programs occurred primarily through DOD’s budgeting process, which is the responsibility of the military services and the Office of the Under Secretary of Defense (Comptroller). JCIDS guidance in effect through December 2011 required that capability sponsors prioritize capability gaps and identify redundancies when developing initial capabilities documents, but it did not specify the criteria sponsors should use to prioritize needs. Our review found that sponsors used different methods, with some ranking priorities in numerical order and others assigning priority categories. Some did not report on redundancies and overlap.</p> <p>The JROC and Joint Staff have acknowledged the need to improve the JROC’s ability to prioritize capabilities through the JCIDS process. Officials noted that the Joint Staff is now implementing a new approach to impose prioritization of joint needs within the context of existing capabilities in joint capability areas. However, the new approach has not been fully developed and clearly documented, and the extent to which current momentum toward assigning priorities will be sustained is uncertain. See the section of our letter on the Joint Staff’s efforts to prioritize capability needs for more information.</p>
GAO scope and methodology	To evaluate the extent to which JCIDS establishes a meaningful level of priority for requirements, we reviewed law and Joint Staff policy documents to understand the roles and requirements of the JCIDS process and the JROC as it pertains to prioritization. We interviewed Joint Staff officials to discuss changes to the approach for prioritizing capability requirements. We also reviewed prior GAO reports, including <a href="#">GAO-11-502</a> and <a href="#">GAO-08-1060</a> , that discussed prioritization and compared the current efforts to prioritize with what was reported in the past.

Sources: DOD and GAO.

<sup>a</sup>GAO, *Defense Acquisitions: DOD’s Requirements Determination Process Has Not Been Effective in Prioritizing Joint Capabilities*, [GAO-08-1060](#) (Washington, D.C.: Sept. 25, 2008). GAO’s 2008 report assessed JCIDS under guidance prior to CJCSI 3170.01G.

<sup>b</sup>GAO, *DOD Weapon Systems: Missed Trade-off Opportunities During Requirements Reviews*, [GAO-11-502](#) (Washington, D.C.: June 16, 2011).

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**Table 10: Section 862(b)(2)(D)—the Extent to Which JCIDS Is Considering Trade-offs between Cost, Schedule, and Performance Objectives**

Summary assessment	The JROC has not always considered trade-offs among cost, schedule, and performance objectives during JCIDS. It is premature to assess current initiatives for considering trade-offs within JCIDS.
Key GAO observations	<p>The Weapon Systems Acquisition Reform Act of 2009 amended section 181 to require the JROC to assist the Chairman of the Joint Chiefs of Staff in ensuring the consideration of trade-offs among cost, schedule, and performance objectives for joint military requirements.<sup>a</sup> However, as we reported in June 2011, most trade-offs are made by the military services outside the JCIDS process as they analyze alternative solutions for meeting capability needs. The JROC’s reviews of requirements do not align with these activities, and as a result, the JROC does not have an opportunity to provide the services input on trade-offs or on the proposed solution to a capability gap before it is selected, and significant time and resources may be expended before the JROC gets to formally weigh in during the JCIDS process. However, we discussed several instances where the JROC held requirements firm during reviews of programs reporting substantial cost growth. According to officials, by accepting increased cost and schedule delays, the JROC essentially traded cost and possibly schedule for performance. We made recommendations to improve the JROC’s ability to make trade-offs, including establishing a mechanism to review the results of the services’ alternatives earlier in the process, among other actions.<sup>b</sup></p> <p>The Joint Staff issued new JCIDS guidance intended to better position the JROC for considering cost, schedule, and performance trade-offs and provide improved accuracy early in the process. As explained in DOD documentation, changes include the following:</p> <ul style="list-style-type: none"> <li>• Conducting a review of the program sponsor’s analysis of alternatives study—including study results, such as cost-, schedule-, and performance-level recommendations—prior to an acquisition program proceeding to the next phase of development.</li> <li>• Considering cost, schedule, performance, and quantity targets in making validation decisions and annotating decisions in JROC memorandums, as appropriate.</li> <li>• Reviewing requirements that have unacceptably deviated from schedule, quantity, cost, and performance parameters.</li> </ul>
GAO scope and methodology	To evaluate the extent to which JCIDS is considering trade-offs between cost, schedule, and performance objectives, we relied primarily on GAO’s June 2011 report— <a href="#">GAO-11-502</a> —that discussed the extent to which the JROC has considered trade-offs within programs. We also reviewed Joint Staff briefings and guidance documents to identify changes in guidance with regard to cost, schedule, and performance trade-offs since June 2011.

Sources: DOD and GAO.

<sup>a</sup>See Pub. L. No. 111-23, § 201(b)(1)(C) (2009) (codified at 10 U.S.C. § 181(b)(1)(C)). Because of this statutory responsibility, we focused on the JROC.

<sup>b</sup>GAO, *DOD Weapon Systems: Missed Trade-off Opportunities During Requirements Reviews*, [GAO-11-502](#) (Washington, D.C.: June 16, 2011).

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**Table 11: Section 862(b)(2)(E)—the Quality of Information on Sustainment Considered in JCIDS and the Extent to Which Sustainment Information Is Considered**

Summary assessment	The quality of information on sustainment planning that program sponsors provided JCIDS varied and the JROC has not systematically considered sustainment before validating programs. <sup>a</sup>
Key GAO observations	<p>The <i>JCIDS Manual</i><sup>b</sup> in effect through December 2011 required that program sponsors of major defense acquisition programs develop information on sustainment based on four factors—materiel availability, operational availability, reliability, and ownership cost<sup>c</sup>—and listed descriptive criteria, against which documents would be reviewed, for program sponsors to consider.<sup>d</sup> We have previously reported that the rigor of the analysis supporting sustainment planning and cost estimates varied. Our current review of six capability development documents showed that all the sponsors addressed the information required, but the level of detail varied. For example, the Navy provided an ownership cost estimate for its proposed Littoral Combat Ship capability but not information to support the estimate or a description of plans to monitor, collect, or validate the ownership cost data. Further, the level of detail provided for the supporting criteria varied, with some documents providing a paragraph of supporting information for some criteria and others providing single-sentence responses. Additionally, none of the documents we reviewed included a clear definition of the type of cost structure used to determine the ownership cost estimates for the proposed programs.</p> <p>JCIDS has not generally sought detailed information to present to the JROC for consideration before validating proposals. Although the review criteria associated with each of the four required sustainment metrics may not be applicable to every program, according to DOD officials the information could be useful for JROC validation discussions and decisions. Without complete information, the JROC may not always have the sustainment information it needs to effectively manage and validate capability documents. See the section of our letter on sustainment information available to the JROC for more information.</p>
GAO scope and methodology	To assess the quality of reported sustainment information and the extent to which it is being considered in JCIDS, we worked with DOD officials to identify six capability development documents that included sustainment information. We reviewed the documents to determine whether and the extent to which sustainment information was included and interviewed DOD officials to discuss reported sustainment data. We also reviewed relevant law and Joint Staff policy documents to understand reporting requirements.

Sources: DOD and GAO.

<sup>a</sup>Under a version of the *JCIDS Manual* in effect through December 2011, the four sustainment factors were required to be developed for major defense acquisition programs. Applicability of some of the information for acquisition category II and lower programs was left to the determination of the sponsor. Under the current version of the manual, issued January 19, 2012, acquisition category II and lower programs, with materiel solutions, are to include either the sustainment metric or sponsor-defined sustainment metrics. As a consequence, under both versions, sustainment information may not necessarily be considered or have been considered outside the context of major defense acquisition programs.

<sup>b</sup>The *JCIDS Manual* required the inclusion of sustainment information in capability development documents beginning in 2007.

<sup>c</sup>The current version of the *JCIDS Manual* renamed the fourth factor as “operation and support cost.”

<sup>d</sup>See *JCIDS Manual*, enc. B (Jan. 31, 2011).

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**Table 12: Section 862(b)(2)(F)—an Evaluation of the Advantages and Disadvantages of Designating a Commander of a Unified Combatant Command for Each JROC-Interest Requirements Document to Provide a Joint Evaluation Task Force for Certain Purposes**

Summary assessment	Developing a joint evaluation task force could have some advantages for combatant commands, such as advancing a dialogue among the commands, but the disadvantages of burdening commands with additional duties of participation may outweigh the benefits.
Key GAO observations	<p>Combatant command officials reported that participation in a task force might provide greater opportunities for the commands to provide input, but they noted that the commands already participate in identification and discussion of capability requirements through the current JCIDS process and other forums.<sup>a</sup> Specifically, commands can participate in</p> <ul style="list-style-type: none"> <li>• experimentation and testing efforts and analysis of alternative teams;</li> <li>• discussions of capability proposals that deviate from cost, schedule, or quantity targets in existing forums;</li> <li>• advocating for desired material solutions as end users through integrated priority lists and service component collaboration; and</li> <li>• commenting on concept of operations and doctrine through participation in regular Functional Capabilities Board meetings.</li> </ul> <p>DOD officials consistently cited the following three key disadvantages to formation of joint evaluation task forces:</p> <ul style="list-style-type: none"> <li>• Implementation of the task force would represent a shift in responsibilities from the military services—which have historically completed these duties—to the combatant commands.</li> <li>• Combatant commands have limited manpower and few acquisition-trained specialists to appropriately fill the role of combat developer.</li> <li>• It is unclear how the leadership responsibilities would be divided among the combatant commands, particularly where a solution is of interest to multiple commands.</li> </ul> <p>In response to congressional questions about establishing such a task force, the current Vice Chairman of the Joint Chiefs of Staff stated that such a task force could result in an additional layer of coordination and staffing between the existing requirements and acquisition processes, further delaying the identification of capability gaps and subsequent fielding of systems addressing those gaps.</p>
GAO scope and methodology	To evaluate the advantages and disadvantages of implementing a joint evaluation task force, we reviewed a March 2010 report prepared by the House Armed Services Committee Panel on Defense Acquisition Reform and interviewed Joint Staff and combatant command officials to discuss advantages and disadvantages of the concept.

Sources: DOD and GAO.

Note: See the introduction to this appendix for the full text of this requirement, including the specific purposes identified.

<sup>a</sup>Among the findings of a May 2011 GAO report was that combatant commands noted the importance of participating in the development of joint requirements, but questioned the value of what they described as a resource-intensive and time-consuming process that is not always responsive to their more immediate capability needs. They also questioned the value of a process that results in decisions that while influential, are advisory to the acquisition and budget process driven by service investment priorities. See GAO, *Defense Management: Perspectives on the Involvement of Combatant Commands in the Development of Joint Requirements*, GAO-11-527R (Washington, D.C.: May 20, 2011). Although the report did not address involvement in a joint evaluation task force, it provides combatant command perspectives on the overall JCIDS process, including views on greater combatant command involvement.

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# Appendix II: Scope and Methodology

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To assess the extent to which the Joint Staff has developed and implemented an analytic approach to prioritize capability needs, we reviewed relevant legislation and Joint Staff guidance on the roles and requirements of the JCIDS process and the JROC as it pertains to assigning levels of priority to capability proposals. Specifically, we reviewed section 181 of the U.S. Code, Title 10; Chairman of the Joint Chiefs of Staff Instruction 3170.01G; Chairman of the Joint Chiefs of Staff Instruction 3170.01H (which we reviewed in draft form); and the *JCIDS Manual*. We then compared the current and prior versions of the instruction and manual to identify changes in the guidance with respect to prioritization of capability proposals. We met with officials from the Joint Staff; Department of the Air Force; Department of the Army; Department of the Navy; and Office of the Under Secretary of Defense for Acquisition, Technology and Logistics to discuss their perspectives on the implementation of changes to JCIDS with respect to prioritizing capability requirements. In order to understand how the JROC is implementing its new approach for prioritizing capabilities, we reviewed briefing materials presented at a JROC forum in November 2011. To corroborate our understanding of the documents we reviewed, we conducted interviews with Joint Staff and Office of the Under Secretary of Defense for Acquisition, Technology and Logistics officials. To understand the Joint Staff's recent internal review of JCIDS, we reviewed the charter and recommendations, and met with Joint Staff officials to discuss how those recommendations from the review might affect the JROC's prioritization of capability proposals. We also reviewed prior reports by GAO, the House Armed Services Committee, and the Defense Business Board that discussed prioritization of capability proposals through JCIDS, and compared the JROC's current efforts to prioritize with what has been reported in the past. We assessed whether the guidance in the *JCIDS Manual* and JCIDS instruction (in draft form during our review and issued in January 2012) on prioritization meets the intent of recommendations contained in our prior reports.

To assess the extent to which the JROC has considered aspects of the availability and operational support requirements of weapon systems—called sustainment—when validating the requirements of proposed capability solutions, we reviewed relevant DOD and Joint Staff policy documents and related guidance outlining the requirement to develop and report sustainment metrics for capability documents. Specifically, we reviewed the reporting requirements for major defense acquisition

programs processed through JCIDS.<sup>1</sup> To determine JCIDS reporting requirements for capability development documents and to understand the JCIDS process, we reviewed the *JCIDS Manual* enclosure pertaining to sustainment and instructions from the Chairman of the Joint Chiefs of Staff. We also reviewed prior GAO work on related topics. Further, we interviewed DOD and Joint Staff officials to discuss preparation, presentation, and consideration of sustainment data.

We also conducted a case study analysis of select capability development documents that included sustainment information. We sought a universe of all capability development documents subject to reporting the sustainment key performance parameter validated since 2007, when JCIDS began requiring program sponsors to include this information. We initially obtained a universe of 22 JCIDS capability development documents from the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics/Logistics and Materiel Readiness. We relied on this provided list of documents because the Joint Staff's Knowledge Management/Decision Support database did not produce reliable results of all requirements documents containing sustainment information. We narrowed the list by eliminating programs that have been downgraded, truncated, or canceled; programs in which the sustainment data were not at the key performance parameter level or were more narrowly defined by only one type of platform; programs whose information was contained in capability production documents rather than capability development documents; and programs whose capability development documents were entered in JCIDS before the full implementation of the sustainment key performance parameter requirement. Additionally, several programs did not have supporting documentation that would allow a review; Joint Staff officials we met with stated that these documents were not available either because of a misidentification of the type of capability document that was being reviewed (a capability production document as opposed to a capability development document), or because the document was not included in the Joint Staff's database for JROC review. These factors led to a refined

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<sup>1</sup>Under the version of the *JCIDS Manual* in effect during the time of our review, sustainment metrics were to be developed for all acquisition category I programs involving materiel solutions and acquisition category II and below programs as determined by the sponsor. See *JCIDS Manual*, app. B to enc. B, para. 2 (Jan. 31, 2011). The current version of the manual states that acquisition category II and below programs, with materiel solutions, shall include the sustainment metrics or sponsor-defined sustainment metrics. See *JCIDS Manual*, app. E to enc. B, para. 2 (Jan. 19, 2012).

universe of 12 requirements documents. We then randomly selected capability development documents for two programs per service—Army, Air Force, and Navy—resulting in a total of six programs to serve as case studies. Because this was a nonprobability sample of programs, the results are not generalizable to all programs; however, they are illustrative of the kinds of issues that are possible in such programs. In order to assess reported sustainment information in the six selected cases, we performed a content analysis of the documentation available for the six cases. Two GAO analysts independently reviewed each of the six capability development documents, assessing whether each of the individual elements of the *JCIDS Manual* sustainment metrics was included, coding the inclusion of each metric as “yes,” “no,” “partial,” and “don’t know.” The two analysts then discussed and reconciled all initial disagreements regarding the assigned codes. We then discussed the results of this content analysis with officials from the Joint Staff and the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics/Logistics and Materiel Readiness to verify that the results of our analysis were valid.

We conducted this performance audit from April 2011 through February 2012 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.

# Appendix III: Comments from the Department of Defense



**THE JOINT STAFF**  
WASHINGTON, DC

8 February 2012

Reply ZIP Code:  
20318-0300

Mr. John H. Pendleton  
Director, Defense Capabilities and  
Management  
U.S. Government Accountability  
Office  
441 G Street, NW  
Washington, D.C. 20548

Dear Mr. Pendleton:

Thank you for the opportunity to review GAO Draft Report GAO-12-339, "Defense Management: Guidance and Progress Measures are Needed to Realize Benefits From Changes in DOD's Joint Requirements Process," dated 6 January 2012 (GAO Code 351609). The DOD response to the report's recommendations is enclosed.

I believe the report reflects a fair and objective assessment of the current Joint Staff's Joint Capabilities Integration and Development System (JCIDS) process during the GAO assessment period. It appropriately highlights the active efforts to improve the JCIDS/Joint Requirements Oversight Council process and procedures to include recently updated guidance in Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01H, CJCSI 5123.01F, and the JCIDS Manual.

The Joint Staff point of contact is Mr. Randolph Wood; J-8/Requirements Management Division; 703-614-9628; randolph.wood@js.pentagon.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "C. A. Franklin", written over a horizontal line.

**CRAIG A. FRANKLIN**  
Major General, USAF  
Vice Director, Joint Staff

Enclosure

ENCLOSURE

**GAO DRAFT REPORT DATED 6 JANUARY 2012  
GAO-12-339 (GAO CODE 351609)**

**“DEFENSE MANAGEMENT: GUIDANCE AND PROGRESS MEASURES ARE  
NEEDED TO REALIZE BENEFITS FROM CHANGES IN DOD’S JOINT  
REQUIREMENTS PROCESS”**

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

**RECOMMENDATION 1:** The Government Accountability Office (GAO) recommends that the Vice Chairman of the Joint Chiefs of Staff, as the Joint Requirements Oversight Council (JROC) Chairman, revise and implement guidance to reflect changes to the Joint Capabilities Integration and Development System (JCIDS) process as well as to establish criteria and measures for determining the relative importance of capability needs across capability areas and assessing progress.

**DOD RESPONSE:** Partially concur.

Substantial changes to the joint requirements development process have recently been made after more than a year of review, discussions, and deliberations. With regard to prioritization of capability needs and assessing progress, the Director, Joint Staff recently approved and signed the JCIDS instruction and JROC Charter instruction (10 January 2012). Changes outlined in these instructions and further detailed in the revised JCIDS Manual (19 January 2012) provide first steps towards an improved prioritization methodology by the Functional Capability Boards, Joint Capabilities Board, and JROC to take into account capability requirements in an expanded portfolio view. Capability gap and solution discussions presented for the JROC will incorporate an evolving portfolio assessment tool that provides a view of the proposed gap/solution with regard to its strategic guidance importance along with other similar solutions already being developed or available to the joint force.

In addition to the DOD priorities presented in the recently released Strategic Guidance for the Department (January 2012), the revised Capability Gap Assessment/Integrated Priority List (CGA/IPL) process will provide further direction for sponsors and other JCIDS implementing bodies to focus on the most important areas as capability gaps/solutions are proposed, reviewed, and validated, or not. During this current review of Combatant Command (CCMD) CGA/IPL inputs (for FYs 14-18), the process includes the incorporation of the Chairman’s Risk Assessment (CRA). By associating the capability gaps identified in the CCMD IPLs with strategic and military risks from the CRA, the JROC will be able to prioritize and make informed decisions as to which gaps are the most critical and which are not of sufficient priority to justify additional

Enclosure

actions or resources. This evaluation and the decisions resulting from this revised CGA/IPL process should further inform and assist in future JCIDS prioritization methodology and results.

**RECOMMENDATION 2:** The GAO recommends that the Vice Chairman of the Joint Chiefs of Staff, as the JROC Chairman, explicitly require that program sponsors address each of the criteria outlined for the individual sustainment metrics when submitting capability development documents.

**DOD RESPONSE:** Partially concur.

The criteria outlined for the sustainment metric key performance parameter and key system attributes within JCIDS were designed to be a “shaping” mechanism for the requirements community. They were not designed to be prescriptive. Each program is unique, and criteria applicable to one program may not be applicable to another. The individual criteria are a guideline to ensure critical thinking/evaluation has occurred in development and review of a program’s sustainment metric. Capability development documents (CDDs) are vetted through the Joint Staff and Office of the Secretary of Defense (OSD), providing opportunities to address omissions/discrepancies. Reviews are held internal to OSD as well as with program sponsors. These reviews enable the Joint Staff to ensure a complete and thoroughly vetted document is presented to the JROC for requirements approval/validation of the proposed capability solution. Additionally, the analyses and rationale for metric development resides in documents other than the CDD. Documents such as the Reliability, Availability, Maintainability, and Cost report, Life Cycle Support Plan, Independent Cost Estimate, and Program Life Cycle Cost Estimate contain more detailed documentation supporting the development of the sustainment metric. DOD policy discourages replication of data and analysis across multiple documents.

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# Appendix IV: GAO Contact and Staff Acknowledgments

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## GAO Contact

John Pendleton, (202) 512-3489 or [pendletonj@gao.gov](mailto:pendletonj@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, Margaret Morgan, Assistant Director; Melissa Blanco; Mae Jones; Kate Lenane; Jennifer Madison; Ron Schwenn; Michael Shaughnessy; Michael Silver; Jennifer Spence; Amie Steele; and Kristy Williams made key contributions to this report.

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