CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION

J-8 CJCSI 3170.01D
DISTRIBUTION: A, B, C, J, S 12 March 2004

JOINT CAPABILITIES INTEGRATION AND DEVELOPMENT SYSTEM

Reference: See Enclosure C

1. Purpose. The purpose of this instruction is to establish the policies and procedures of the Joint Capabilities Integration and Development System (JCIDS). The procedures established in the JCIDS support the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Requirements Oversight Council (JROC) in identifying, assessing and prioritizing joint military capability needs as specified in reference a. Validated and approved JCIDS documents provide the Chairman's advice and assessment in support of these statutory mandates. Additionally, the JCIDS is a key element in the Chairman's efforts to realize the initiatives directed in reference b. Specific procedures for the operation of the JCIDS, and for the development and staffing of JCIDS documents can be found in reference c.

2. Cancellation. CJCSI 3170.01C, 24 June 2003, "Joint Capabilities Integration and Development System," and DJSM-0921-02, 7 October 2002, are canceled.

3. Applicability. In accordance with references d, e and f, this instruction applies to the Joint Staff, Services, combatant commands, Defense agencies and joint and combined activities. This instruction also applies to other agencies preparing and submitting JCIDS documents in accordance with references d, e and f. This instruction applies to all unclassified, collateral, compartmented and special access programs.

4. Policy

a. This instruction is based on the need for a joint concepts-centric capabilities identification process that will allow joint forces to meet the full range of military challenges of the future. Meeting these challenges involves a

transformation that requires the ability to project and sustain joint forces and to conduct flexible, distributed and highly networked operations. To achieve substantive improvements in joint warfighting and interoperability in the battlespace of the future, coordination among Department of Defense (DOD) Components is essential from the start of the JCIDS process.

b. To accomplish this transformation, DOD is implementing processes that assess existing and proposed capabilities in light of their contribution to future joint concepts. The process must produce capability proposals that consider the full range of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) solutions in order to advance joint warfighting.

c. New solution sets must be crafted to deliver technologically sound, sustainable and affordable increments of militarily useful capability. All capabilities shall be developed and procured to leverage the unique attributes of other DOD Components, international systems from allies and cooperative opportunities. Potential solutions may include a family of systems (FoS) that take different approaches to filling the capability gap, each addressing operational considerations in a different way. Alternatively, the solution may require a system of systems (SoS) approach to fill a capability gap. The FoS and SoS materiel solutions may also require systems delivered by multiple sponsors/materiel developers. The process to identify capability gaps and potential solutions must be supported by a robust analytical process which incorporates innovative practices--including best commercial practices, collaborative environments, modeling and simulation and electronic business solutions.

d. This instruction does not preclude the need to refer to the DOD 5000 series documents or the National Security Space Acquisition Policy 03-01 for guidance and direction on defense acquisition. Document formats and processes in reference c are mandatory for all DOD capabilities documents for all acquisition category (ACAT) programs. Application of a common process and these common formats to all JCIDS documentation will provide better visibility, earlier recognition and improved implementation of joint capabilities improvements. Where appropriate, and with Validation Authority approval, mandatory documentation formats provided in reference c may be tailored to implement the intent of this instruction for specific programs, such as automated information systems (AIS), shipbuilding and national security space systems.

e. The Knowledge Management/Decision Support (KM/DS) Tool supports processing, coordination and repository functions for JCIDS documents. Documents established in staffing at the time of implementation of this instruction will convert to KM/DS at the next key-staffing milestone. The Web site for KM/DS is https://siprweb1.js.smil.mil/pls/jrcz.

f. Documents that were approved under the Requirements Generation System remain valid, except as detailed below:

(1) Capstone Requirements Documents (CRD) that have already been approved by the JROC will continue to be valid until they are absorbed into appropriate integrated architectures and retired. This instruction continues to support development of CRDs as directed by the JROC, in the updated format. JROCM 176-03 lists those CRDs approved for continuing use, and those approved for development. This JROCM will be maintained on KM/DS to facilitate Capability Development Document (CDD) and Capability Production Document (CPD) crosswalks.

(2) No new Mission Need Statements (MNS) will be accepted for capability development. Initial Capabilities Documents (ICD), developed in accordance with this instruction, will be used instead. Programs that have already completed acquisition Milestone A or beyond are not required to update the MNS with an ICD. No MNS greater than two years old will be used to support a Milestone A (or programs proceeding directly to Milestone B or C) acquisition decision.

(3) No new Operational Requirements Documents (ORD) will be accepted. ORD updates/annexes, CDDs and CPDs developed in accordance with this instruction will be accepted to support capability development. ORD updates/annexes will comply with the format instructions in CJCSI 3170.01B and incorporate the Interoperability/Net-Ready Key Performance Parameter (KPP) as required by reference g. The transition from the Interoperability KPP to the Net-Ready KPP is directed by the instructions in JROCM 236-03, 19 December 2003. A validated and approved ORD, developed under a previous version of this instruction, may be used to support a Milestone B or C decision in lieu of a CDD or CPD until 24 June 2005.

5. Definitions. See Enclosure GL, Part II.

6. Responsibilities. See Enclosure B.

7. Summary of Changes

a. This revision reflects an update to the instruction issued 24 June 2003 to reflect lessons learned and fact of life changes as a result of implementation of the JCIDS process. Staffing procedures and guidance to support the development of ICDs, CDDs, CPDs and CRDs are provided in reference c.

b. JCIDS will provide:

(1) An enhanced methodology utilizing joint concepts that will:

(a) Identify and describe existing or future shortcomings, as identified against current or future capability needs or as measured against current or projected threat capabilities.

(b) Identify and describe redundancies in warfighting capabilities.

(c) Describe the attributes of effective solutions.

(d) Identify the most effective approach or combination of approaches to resolve those shortcomings.

(2) A broader review of materiel capability proposals developed throughout the Department independent of the ACAT of the proposal.

(3) Better linkage to the acquisition strategy and process by engaging the acquisition agency early, as capabilities proposals are developed.

(4) Prioritization of joint warfighting capability gaps.

(5) Improved prioritization of validated joint warfighting capability proposals.

(6) Better identification of the DOTMLPF implications resulting from the development and fielding of a new capability.

(7) Improved coordination with other US government departments or national agencies.

c. Ongoing efforts supporting the development and implementation of joint concepts and integrated architectures are not governed within the JCIDS process or this instruction. This document does, however, set the stage for the transition to a process founded on joint concepts and integrated architectures. Future revisions of this instruction and the companion manual will complete this transition.

d. The Joint Impact Joint Potential Designator is eliminated in this update, since only the JROC has the authority to validate Joint Impact proposals. As a result, there was no difference between JROC Interest and Joint Impact.

e. AISs remain subject to this document.

f. JCIDS proposals with nonmateriel DOTMLPF implications require JROC approval and DOTMLPF implementation in accordance with references h and i.

8. Releasability. This instruction is approved for public release; distribution is unlimited. DOD components (to include the combatant commands), other federal agencies, and the public may obtain copies of this instruction through the Internet from the CJCS Directives Home Page--
http://www.dtic.mil/cjcs_directives. Copies are also available through the Government Printing Office on the Joint Electronic Library CD-ROM.

9. Effective Date. This instruction is effective upon receipt.

RICHARD B. MYERS
Chairman
of the Joint Chiefs of Staff

Enclosures:
A -- Joint Capabilities Integration and Development System (JCIDS) Process
B -- Responsibilities
C -- References
GL -- Glossary

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LIST OF EFFECTIVE PAGES

The following is a list of effective pages for CJCSI 3170.01D. Use this list to verify the currency and completeness of the document. An "O" indicates a page in the original document.

PAGE	CHANGE
1 thru 6	O
i thru viii	O
A-1 thru A-16	O
B-1 thru B-8	O
C-1 thru C-2	O
GL-1 thru GL-12	O

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RECORD OF CHANGES

Change No.	Date of Change	Date Entered	Name of Person Entering Change

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ENCLOSURE A

JOINT CAPABILITIES INTEGRATION AND DEVELOPMENT SYSTEM (JCIDS) PROCESS

1. Purpose. The purpose of this enclosure is to describe the JCIDS process. The JCIDS, the Defense Acquisition System, and the Planning, Programming, Budgeting, and Execution (PPBE) process form DOD's three principal decision support processes for transforming the military forces to support the National Military Strategy and the Defense Strategy. The procedures established in the JCIDS support CJCS and JROC in identifying, assessing and prioritizing joint military capability needs as specified in reference a. Validated and approved JCIDS documents provide this advice and assessment.

a. Ensuring that the joint force has the capabilities necessary to perform across the range of military operations is the primary focus of the JCIDS process. Recent operations have emphasized the necessity of integrated and interoperable joint warfighting capabilities. A joint concepts-centric capabilities-identification process is, therefore, required to define how new capabilities are identified and developed.

b. JCIDS implements an integrated, collaborative process to guide development of new capabilities through changes in DOTMLPF. Change recommendations are developed, evaluated and prioritized based on their contribution to future joint concepts.

2. JCIDS Methodology. JCIDS implements a capabilities-based approach that better leverages the expertise of all government agencies, industry and academia to identify improvements to existing capabilities and to develop new warfighting capabilities. This approach requires a collaborative process that utilizes joint concepts and integrated architectures to identify prioritized capability gaps and integrated DOTMLPF solutions (materiel and nonmateriel) to resolve those gaps.

a. JCIDS Benefits. JCIDS implements:

(1) An enhanced methodology utilizing joint concepts that will identify and describe existing or future shortcomings and redundancies in warfighting capabilities, describe the attributes of effective solutions and identify the most effective approach or combination of approaches to resolve those shortcomings. Although a more rigorous and holistic approach to capability definition and development will require more effort early in the process, the resulting benefits of providing a well-developed, integrated and supportable solution to the warfighter will be significant.

(2) A broader review of capability proposals developed throughout the Department, focusing on the contributions that proposals make to the realization of future joint concepts, independent of the ACAT.

(3) Better linkage to the acquisition strategy and process by engaging the provider early, as capabilities proposals are developed. In well-staffed proposals, materiel developers will be engaged when the sponsor initiates their JCIDS analysis, prior to the development of capability proposals. This early and ongoing interaction will improve the Department's ability to manage FoS and SoS and their streamlined, coordinated delivery to the warfighter by multiple sponsors/materiel developers. JCIDS will also facilitate identification and elimination of redundant efforts which will not improve the warfighter's capabilities. Additionally, JCIDS fully complements the evolutionary acquisition process described in references e and f.

(4) Prioritization of joint warfighting capability gaps based on future joint concepts to help focus the efforts of solution developers, including bringing together different sponsors to work towards a joint solution. Joint warfighting priorities established through the JCIDS process should provide a basis for the science and technology community to focus developmental efforts as specified in the Joint Warfighting Science and Technology Plan (JWSTP).

(5) Improved prioritization of validated joint warfighting capability proposals submitted in accordance with this instruction. This prioritization must conform to and reflect resource levels projected by the Secretary of Defense through the Strategic Planning Guidance (SPG)/Joint Programming Guidance (JPG). Additionally, it should reflect risk guidance from both the Secretary and the Chairman on what portions of joint operating concepts could accept risk.

(6) Better definition of the relationship and integration between materiel considerations and those of doctrine, organization, training, leadership and education, personnel, and facilities resulting from the development, fielding and sustainment of a new capability, whether it is an individual system, a FoS or a SoS. Additionally, the JCIDS process links to the DOTMLPF change recommendation process outlined in reference i. Future revisions to this document and reference c will merge the two processes to arrive at a holistic process that provides fully integrated DOTMLPF solutions.

(7) Improved coordination with other US government departmental or agency staffs. The potential exists for DOD capabilities to satisfy needs of other government agencies and, conversely, a capability provided by another government agency or department may satisfy a DOD capability need. The JCIDS will provide a common coordination and integration process for DOD Components working with other agencies and departments. These agencies and departments may include, but are not limited to, the Director of Central

Intelligence Mission Requirements Board (MRB), the Department of Homeland Security, the Department of State and the National Aeronautics and Space Administration.

b. Top Down Capabilities Identification Methodology. As joint concepts and integrated architectures are developed, a capabilities identification methodology will emerge that flows from top-level strategic guidance. Based on this guidance, the Joint Operations Concepts (JOpsC) (reference j) portrays the linkage between how the joint force operates today and the vision for the future. Supporting Joint Operating Concepts (JOC) (e.g., homeland security) and Joint Functional Concepts (JFC) (e.g., focused logistics) provide the capabilities description and foundation from which integrated architectures and Joint Integrating Concepts (JIC) will be developed and refined. As they are developed, the integrated architectures and JICs will provide the construct for analysis to identify capability and supportability shortfalls, compare alternatives for improving joint warfighting capabilities, and associated resource implications. Future revisions to this instruction and the companion manual will fully incorporate the use of joint concepts and integrated architectures in the JCIDS process. The flow of guidance from one level to the next is shown in Figure A-1. A brief discussion of the methodology is provided below.

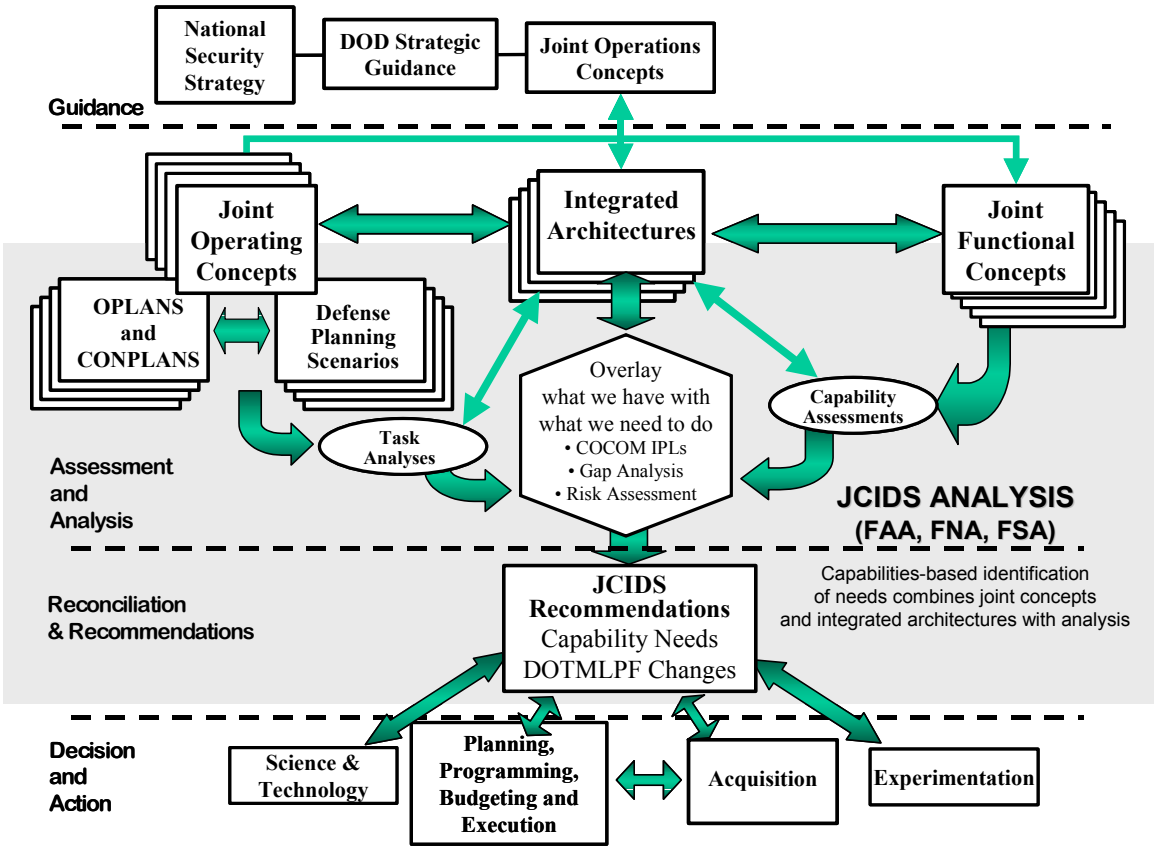

Figure A-1. Top Down Capability Need Identification Process

(1) Functional Area Analysis (FAA). The FAA is described in reference c. It identifies the operational tasks, conditions, and standards needed to achieve military objectives. It uses the national strategies, JOCs, JFCs, JICs, integrated architectures, the Universal Joint Task List (UJTL), the anticipated range of broad capabilities that an adversary might employ, and other sources as input. Its output is the tasks to be reviewed in the follow-on functional needs analysis. The FAA includes capability-based analysis in identifying the operational tasks, conditions and standards.

(2) Functional Needs Analysis (FNA)

(a) FNA is described in reference c. It assesses the ability of the current and programmed joint capabilities to accomplish the tasks that the FAA identified under the full range of operating conditions and to the designated standards. Using the tasks identified in the FAA as primary input, the FNA produces as output a list of capability gaps or shortcomings that require solutions and indicates the time frame in which those solutions are needed. It may also identify redundancies in capabilities that reflect inefficiencies. The FNA must include supportability as an inherent part of defining capability needs.

(b) JFCs define capabilities by functional domain, describing common attributes desired of subordinate systems, FoS, SoS, and nonmateriel solutions. Integrated architectures describe complex relationships and linkages to portray the synergy provided by multiple DOTMLPF solutions within the joint force and to identify gaps and redundancies before new systems are developed.

(3) Functional Solution Analysis (FSA). FSA is described in reference c. It is an operationally based assessment of all potential DOTMLPF approaches to solving (or mitigating) one or more of the capability gaps (needs) identified in the FNA. On the basis of the capability needs, potential solutions are identified, including (in order of priority) integrated DOTMLPF changes that leverage existing materiel capabilities; product improvements to existing materiel or facilities; adoption of interagency or foreign materiel solutions; and finally, initiation of new materiel programs. Identified capability needs or redundancies (excess to the need) establish the basis for developing materiel approaches in ICD and/or DOTMLPF approaches through reference i.

c. Experimentation and Science and Technology

(1) Experimentation. Joint experimentation explores concepts to identify joint and Component DOTMLPF change recommendations and capabilities needs. Experimentation provides insight and understanding of the concepts and capabilities that are possible given the maturity of specific technologies and capabilities that need additional research and development emphasis.

Experimentation and assessment can help establish measures of effectiveness (MOE) to indicate achievement of desired operational capabilities. The results of joint experimentation will define the art of the possible and support the identification of DOTMLPF solutions to provide new capabilities.

(2) Science and Technology. The priorities of joint warfighting capabilities established through the JCIDS process should serve to inform the science and technology community and focus the developmental efforts of the community as specified in the JWSTP. Advanced Concept Technology Demonstrations (ACTD) are an important mechanism in this process because they are used to assess the military utility of new capabilities and mature advanced technologies. They are on a scale large enough to demonstrate operational utility and end-to-end system integrity. The JROC reviews and recommends prioritization of ACTD candidates based on military need, and appoints a sponsoring combatant command (COCOM) and lead Service.

d. The Sponsor. Throughout the JCIDS process, reference is made to the sponsor. In general, the sponsor is the DOD Component or other organization responsible for all common documentation, periodic reporting and funding actions required to support the JCIDS process and acquisition activities carried out in accordance with references e and f. Additional definition of the sponsor's role is provided in Enclosure B, Responsibilities.

e. Defining Capabilities. In a capabilities-based approach, it is important to establish a common understanding of how a capability is conceived and how it is expressed. The top down capabilities identification methodology provides a method to identify gaps in warfighting capabilities and assess associated risk(s). In describing capabilities to resolve identified gaps, the following guidelines are instructive:

(1) Capability definitions must contain the following elements: key attributes with appropriate measures of effectiveness, supportability, time, distance, effect (including scale) and obstacles to be overcome.

(2) Capability definitions should be general enough so as not to prejudice decisions in favor of a particular means of implementation, but specific enough to evaluate alternative approaches to implement the capability.

f. Interagency Capabilities. There will be capabilities that will have applicability not only across the DOD but also to certain non-DOD agencies and departments such as the Department of State, Department of Homeland Security, etc. Conversely, there will be capabilities developed by other government departments and agencies that may fill a capability need of DOD. The sponsor and their lead Functional Capabilities Board (FCB) Working Group will ensure that the lead FCB is aware of these opportunities and that the

appropriate DOD sponsor works with appropriate non-DOD departments and/or agencies to fully coordinate the development of these capabilities.

g. National Intelligence Capabilities. National intelligence capabilities developed by the intelligence community provide capabilities for national users as well as DOD warfighters. As such, capabilities integration and development efforts by the intelligence community must follow a parallel path between the defense and national intelligence communities. Resulting capabilities documents will be validated and approved by the JROC and the Director of Central Intelligence MRB.

3. Introduction to the JCIDS Process. A simplified depiction of the relationship between the JCIDS process and key acquisition decision points is provided in Figure A-2 below. Although the figure illustrates the process flowing through/into Defense and Information Technology Acquisition Boards (DAB/ITAB) in accordance with references e and f, similar practices are utilized by Milestone Decision Authorities (MDA) within Components. The JCIDS process is closely linked to the acquisition process, described in references d, e and f.

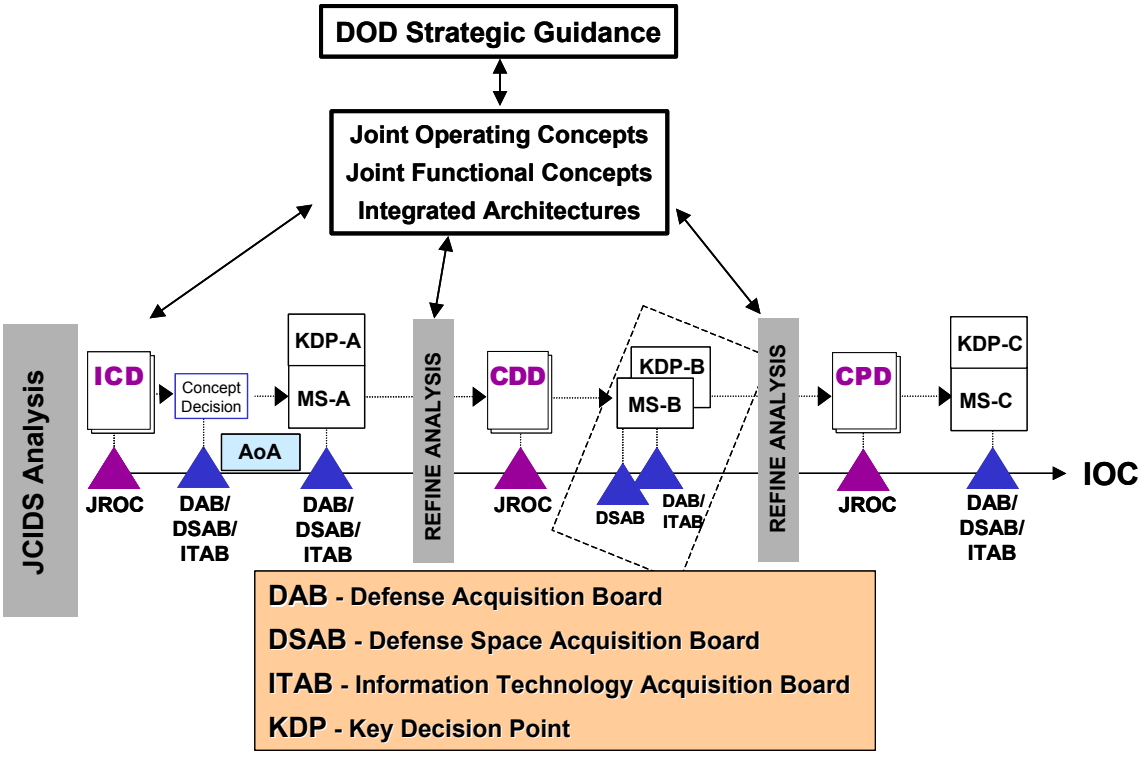

Figure A-2. JCIDS Process and Acquisition Decisions

a. As they are developed and refined, strategic policy guidance, joint concepts and integrated architectures will provide a common construct for analysis to identify capability shortfalls or redundancies and compare alternatives for improving joint warfighting capabilities. Although efforts

supporting the development and implementation of joint concepts and integrated architectures are not governed within the JCIDS process or this instruction, the construct for analysis will improve as these products are developed and matured. Future revisions to the JCIDS process will further incorporate the additional utility provided by joint concepts and integrated architectures. In the interim, the JCIDS process will leverage available products while aggressively promoting further development of joint concepts and integrated architectures.

b. The JCIDS analysis process identifies capability gaps, capability redundancies, assesses the risk and priority of the gaps and recommends the best approach (materiel and/or nonmateriel) or combination of approaches to address the gap(s). The collaborative analysis process should leverage the abilities and knowledge of all DOD Components and other resources, and contribute appropriately to the joint force commander's ability to most effectively deliver the desired effects.

c. Documents submitted in accordance with this instruction (ICDs, CDD, CPD and CRD) support the development and production of systems, FoS and SoS.

d. Throughout the process, proposals are evaluated to ensure that they are consistent with the joint force envisioned in strategic policy guidance documents, joint concepts and integrated architectures. When revolutionary new capabilities emerge that are not envisioned in the joint concepts, the process will examine how these new capabilities impact the existing construct and whether the construct should be revised to optimize the new capability.

4. JCIDS Analysis. The JCIDS analysis process documents capability gaps, determines the attributes of a capability or combination of capabilities that would resolve the gaps, identifies material and/or nonmaterial approaches for implementation and roughly assesses the cost and operational effectiveness of the joint force for each of the identified approaches in resolving capabilities gaps. A result of the joint concepts-centric JCIDS analysis process is robust, cross-component analysis of warfighting and required capabilities. This will ensure the sponsor considers the most effective joint force capabilities and the integration of those capabilities early in the process. Appropriate Component, cross-Component and interagency expertise; science and technology community initiatives; and experimentation results must be considered in the development of DOTMLPF solutions. Due to the wide array of issues that will be considered in the JCIDS process, the breadth and depth of the analysis must be tailored to suit the issue. Ultimately, JCIDS analysis will be based upon robust, integrated architectures and joint analytic assets. In the interim, JCIDS analysis will utilize existing resources. A detailed explanation of the JCIDS analysis process is provided in reference c.

5. JCIDS Documentation. The documentation developed during the JCIDS process provides the formal communication of capability needs between the operator and the acquisition, test and evaluation, and resource management communities. The document formats and review processes specified in reference c are mandatory and shall be used throughout DOD for all acquisition programs regardless of ACAT.

a. JCIDS Document Descriptions. Services and other DOD Components may develop ideas and concepts leading to draft ICDs, CDDs, CPDs and CRDs (when CRDs are directed by the JROC). Whether a new materiel proposal proceeds initially to acquisition Milestone A, B, or C depends on criteria specified in references e and f. Regardless of the initial acquisition milestone, an ICD will be generated in all cases to define the capability in a joint context, review the options to provide the capability, and ensure that all DOTMLPF alternatives, impacts and constraints have been adequately considered. All initiatives transitioning to the acquisition process will have a corresponding validated and approved CDD and/or CPD prior to entering Milestone B or C, respectively (see reference f for DOD space programs). Brief descriptions of the documents are provided below.

(1) Initial Capabilities Document (ICD)

(a) The ICD makes the case to establish the need for a materiel approach to resolve a specific capability gap, or set of capability gaps, derived from the JCIDS analysis process. The ICD supports the analysis of alternatives (AoA) as required (see reference e), the Technology Development Strategy, the Milestone A acquisition decision, and subsequent Technology Development phase activities as described in reference e. The ICD defines the capability gap in terms of the functional area(s), the relevant range of military operations, time, obstacles to overcome and key attributes with appropriate measures of effectiveness, e.g., distance, effect (including scale), etc. ICDs will eventually be based entirely on integrated architectures.

(b) The ICD also captures the evaluation of different materiel approaches that were proposed to provide the required capability. The ICD proposes the recommended materiel approach(s) based on analysis of the relative cost, efficacy, sustainability, environmental quality impacts and risk posed by the materiel approach(s) under consideration. The analysis that supports the ICD helps to shape and provides input to the AoA (when required) that will be used through the life of the system. In order to be informed of areas considered critical to their analysis, sponsors should consult with appropriate FCB Working Group while developing their ICD. The FCB Working Group, in turn, will advise their respective lead FCB and the Director, Program Analysis and Evaluation (D, PA&E) of anticipated proposals. D, PA&E may provide specific AoA guidance, as approved by the MDA. The ICD describes how the recommended approach best satisfies the desired joint capability. It

supports the AoA by providing operational context for assessing the performance characteristics of alternatives.

(c) Once approved, an ICD is not normally updated. When approved, CDDs (described below) bring the desired capability specified in the ICD into the System Development and Demonstration (SDD) phase, and the ICD is archived for reference. The ICD becomes a baseline document for FoS and SoS approaches and for linkages between associated CDDs and CPDs including the overarching DOTMLPF aspects necessary to meld the FoS or SoS into an effective capability. Thus, an ICD may support multiple CDDs and CPDs. The CDD then serves as the living document to carry contributing systems and subsequent increments through the SDD phase. The ICD is described in detail in reference c.

(2) Capability Development Document (CDD)

(a) Guided by the ICD, the AoA (for ACAT I/IA programs) and technology development activities, the CDD captures the information necessary to develop a proposed program(s), normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of capability. An increment is a militarily useful and supportable operational capability that can be effectively developed, produced or acquired, deployed and sustained. Each increment of capability will have its own set of attributes and associated performance values with thresholds and objectives established by the sponsor with input from the user. The validated and approved CDD supports the development of the required dependent documents as described in Enclosure E of reference c and supports the Milestone B acquisition decision.

(b) The CDD provides the operational performance attributes, including supportability, necessary for the acquisition community to design the proposed system, including key performance parameters (KPP) and other parameters that will guide the development, demonstration and testing of the current increment. Because the operational performance attributes provided in a CDD apply only to a single increment of a program's development, the KPPs shall apply only to the current increment (or to the entire program when only a single increment is required to achieve full capability). The AoA should be reviewed for its relevance for each program increment requiring a Milestone B decision and, if necessary, the AoA should be updated or a new one initiated.

(c) In addition to describing the current increment, the CDD will outline the overall strategy to develop the full or complete capability. For evolutionary acquisition programs, the CDD will outline the increments delivered to date (if any), the current increment and future increments (if any) of the acquisition program to deliver the full operational capability. The CDD shall always reference the originating ICD. However, in the case of FoS and SoS solutions, the CDD shall also identify other CDDs/CPDs that are required

for full realization of the capability(s) and describe the synchronization required between programs. The CDD will also reference any additional overarching DOTMLPF changes necessary to meld the FoS and SoS into an effective capability.

(d) The CDD must be validated and approved before each Milestone B decision. If the performance characteristics of subsequent increments of a CDD can be captured in an annex, then it may be appropriate to update an existing CDD for each increment rather than rewriting the entire document. The CDD is described in detail in reference c.

(3) Capability Production Document (CPD)

(a) The CPD addresses the production attributes and quantities specific to a single increment of an acquisition program. The sponsor finalizes a CPD after design readiness review when projected capabilities of the increment in development have been specified with sufficient accuracy to begin production. The validated and approved CPD supports the development of the required dependent documents as described in Enclosure F of reference c and supports the Milestone C decision review.

(b) Performance and supportability attributes in the CPD will be specific to the increment. The design trades from the SDD phase will have been completed and a specific production design determined for the increment. The threshold and objective performance values of the CDD are, therefore, superseded by the specific production values detailed in the CPD for the increment. Reduction in threshold KPP performance will require an assessment of the military utility of the reduced capability and, possibly, a reexamination of the program to determine if an alternative materiel or nonmateriel solution should be adopted. The CPD shall always reference the originating ICD. However, when the CPD is part of a FoS/SoS solution, the CPD shall also provide the linkages to related CDDs/CPDs and supporting analyses (e.g., AoA) to ensure the system production is synchronized with the related systems required to fully realize the capability(s). The CPD is described in detail in reference c.

(4) Capstone Requirements Document (CRD). The JROC may approve the development of a new CRD when existing concepts and integrated architectures are not sufficient to support the development of capabilities.

(a) As joint concepts and integrated architectures are developed, straight-forward CRDs that are a clear statement of the military task to be accomplished will continue to induce the development of interoperable capabilities by describing overarching thresholds/goals and standards in functional areas, especially where a FoS or SoS approach is required. In general, the existence of an approved integrated architecture will obviate the

need for a CRD. There may be some instances where CRDs are developed at JROC direction to represent specific, clearly stated tasks (see subparagraph 5a(4)(d) below). Integrated architecture products must be traceable to the pertinent CRD and its KPPs.

(b) The JROC will assign "CRD lead" responsibility to an FCB or an appropriate DOD Component. The CRD lead will ensure that the intent of JROC-approved CRDs is captured during the development of the integrated architectures. When an integrated architecture is presented to the JROC, CRD leads will propose retirement of appropriate CRDs that are superseded by the approved integrated architecture.

(c) If a conflict arises between a CDD/CPD satisfying attributes/KPPs from multiple CRDs or the Department's overall strategy, the sponsor, in collaboration with applicable CRD leads, will prioritize CRD attributes/KPPs for a CDD/CPD to achieve appropriate FoS/SoS integration/capability.

(d) New CRDs will be developed only as the result of specific JROC direction. Sponsors will not expend resources or efforts developing a CRD without the written concurrence of the JROC. Updates to existing CRDs may be initiated by the CRD lead. The CRD is described in detail in reference c.

b. Performance Attributes and KPPs. The CDD and CPD state the operational and support-related performance attributes of a system that provide the desired capability required by the warfighter, attributes so significant that they must be verified by testing and evaluation. The documents shall identify the specific attributes contributing most significantly to the desired operational capability, in threshold-objective format. Whenever possible, attributes should be stated in terms reflecting the capabilities necessary to operate in the full range of military operations and environment intended for the system. This will be used to guide the acquisition community in making tradeoff decisions between the threshold and objective values of the stated attributes. Operational testing will assess the operational effectiveness and suitability of the system and its ability to meet the production threshold values. Additional discussion of attributes and KPPs is provided in reference c.

c. Acquisition Program Baseline (APB) KPP Procedures. APBs are described in reference e as establishing program threshold and objective values for the minimum number of cost, schedule and performance attributes that describe the program over its life cycle. The CDD and CPD provide the basis for the performance section of the acquisition strategy and APB, with the KPPs inserted verbatim into the APB. Cost and schedule measures will also be included within the APB with their associated objective and threshold values. For JROC Interest programs, the J-8 will review the APB's cost, schedule and KPPs (objective and threshold values) to ensure they are consistent with a

JROC-approved CDD or CPD and prior JROC decision(s) and that it provides the necessary warfighting capabilities affordably and within required time frames. For all programs, establishment of an APB will be sufficient entry criteria for validation of JCIDS proposals, regardless of the timing for the next Milestone Decision.

6. JCIDS Document Review, Validation and Approval Process. The staffing process prepares the document for review by the lead FCB and validation and approval by the appropriate authority. JCIDS documents will be submitted into and staffed through the Joint Staff KM/DS tool. The first step in the review process is the determination of the Joint Potential Designator (JPD) and the designation of a lead FCB and supporting FCBs, if appropriate.

a. Based on the content of the submission, the Joint Staff, Vice Director J-8, in the capacity of the Gatekeeper will assign a JPD of "JROC Interest," "Joint Integration," or "Independent" to the document. This designation specifies JCIDS validation, approval and certification expectations.

(1) The JROC Interest designation will apply to all ACAT I/IA programs and ACAT II and below programs where the capabilities have a significant impact on joint warfighting. This designation may also apply to intelligence capabilities that support DOD and national intelligence requirements. All CRDs and DOTMLPF change recommendations will be designated as JROC Interest.

(2) The Joint Integration designation will apply to ACAT II and below programs where the concepts and/or systems associated with the document do not significantly affect the joint force and an expanded review is not required, but interoperability, intelligence and/or munitions certification is required.

(3) The Independent designation will apply to ACAT II and below programs where the concepts and/or systems associated with the document do not significantly affect the joint force, an expanded review is not required, and no certifications are required.

b. The Gatekeeper assigns a JPD to each document. This assignment determines the body responsible for final validation and approval of the document (see Table A-1), any certifications that may be required (such as Information Technology and National Security Systems (IT and NSS) interoperability and supportability, intelligence or munitions insensitivity) and the staffing distribution for the document. Details regarding the review and staffing process are provided in reference c.

Table A-1. JCIDS Validation and Approval Authorities

Office	**JROC Interest**	**Joint Integration**	**Independent**
JROC	Validate/Approve		
DOD Component		Validate/Approve	Validate/Approve

7. Functional Capabilities Boards (FCB). Each FCB will operate in accordance with a JROC-approved charter. The FCB is responsible for the organization, analysis and prioritization of joint warfighting capability needs proposals within assigned functional areas. The FCB will work to ensure that the joint force is best served through the JCIDS, and overarching DOTMLPF change recommendations. The FCB is an advisory body to the Joint Capabilities Board (JCB) and JROC for JCIDS initiatives assigned with JPDs of JROC Interest. The FCB may review initiatives with JPDs of Joint Integration and Independent and recommend changes to the JPD where warranted.

a. FCB Scope. Each FCB evaluates its functional area(s) and JCIDS proposals that affect the functional area(s). The FCB will ensure that the supporting analysis adequately leverages the expertise of the DOD Components, in particular, the Services, combatant commands, agencies, DOD laboratories, science and technology community initiatives, experimentation initiatives, non-DOD agencies and industry to identify promising materiel and nonmateriel approaches. Since robust, cross-Component analysis of warfighting and required capabilities is essential to an innovative and integrated joint force, this review will help ensure the integrity of that analysis.

b. FCB Chairman. The FCB Chair has the flexibility necessary to implement the intent of this instruction for those cases not explicitly covered. In cases where there is disagreement within the FCB that cannot be resolved, the FCB chairman will forward the issue to the JCB/JROC for decision. Specific FCB responsibilities are outlined in Enclosure B.

c. FCB Membership

(1) FCB Principal Members. The organizations listed below will typically comprise the primary membership of the FCB. The FCB will be chaired by a flag officer with O-6 or civilian equivalent representatives from the organizations named below, as required. The FCB Chairman may invite the appropriate MDA representative to co-chair the FCB for appropriate topics. The organization responsible for chairing each FCB will be determined by the JROC and documented in a JROCM.

(a) US Army.

(b) US Navy.

(c) US Air Force.

(d) US Marine Corps.

(e) Combatant commands.

(f) Joint Staff.

(g) Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L)).

(h) Office of the Under Secretary of Defense, Comptroller (OUSD(C)).

(i) Director, Program Analysis and Evaluation (D, PA&E).

(j) Office of the Assistant Secretary of Defense for Networks and Information Integration (OASD NII)/DOD Chief Information Officer (CIO).

(k) Defense Intelligence Agency (DIA) representative for intelligence supportability and threat assessment.

(l) Under Secretary of the Air Force (USecAF) (as the DOD Space Milestone Decision Authority) (as required).

(m) Under Secretary of Defense for Intelligence (USD(I)) (as required).

(n) MRB Executive Staff (as appropriate).

(o) Other DOD and non-DOD agencies (as required).

(2) Advisory Membership. The following advisory members support the FCB, as appropriate.

(a) FCB Working Group leads.

(b) J-6 representative (interoperability advisor).

(c) DOD laboratories.

(d) Industry/corporate expertise (as required).

(e) J-8/Warfighting Concept and Architecture Integration Division.

(f) CJCS Legal Counsel (as required).

8. Certifications. As part of the staffing process for each JCIDS document with JPDs of JROC Interest and Joint Integration, appropriate certifications will be

processed. The DIA/Joint Staff J-2 will grant threat validation and intelligence certification, and (for munitions only) Joint Staff J-4 will grant munitions certifications. For CDDs and CPDs, IT and NSS interoperability and supportability certifications will be performed in accordance with references g, k and l. The sponsor is responsible for resolving any certification issues with the appropriate certification authority. The applicable certifications must be completed prior to JCB/JROC review.

9. General Process Flow

a. The JCIDS process will support decision makers by ensuring that validated capabilities needs are being addressed by appropriate materiel and/or nonmateriel approaches. The process will also ensure that multiple materiel approaches or concepts, across the spectrum of DOTMLPF and across DOD Components, are adequately considered to provide desired capabilities. All JCIDS documents will be submitted through the KM/DS tool and coordinated in accordance with procedures described in reference c.

b. In the case of a potential ACAT I proposal, an AoA must be conducted after the approval of the ICD in accordance with reference e to refine the initial materiel approach recommended for implementation in the ICD. The results of AoAs will be reviewed by the lead FCB upon submission of the CDD to ensure that the refined concept or approach continues to meet the warfighter's capability needs.

c. Performance attributes listed in the CDD will specify values for the current increment of system development, as a minimum. If an evolutionary acquisition strategy is anticipated, the capability to be delivered in the next increment is captured in the CDD, incorporating technology development efforts. The CDD will then be updated, along with its supporting analyses (e.g., AoA), as required between increments.

d. The CPD narrows the generalized performance and cost parameters from the CDD into more precise performance estimates for the production system. The CPD must be validated and approved before initial operational test and evaluation (IOT&E) may start. The CPD provides refined operational performance, schedule and affordability attributes to ensure the increment adequately addresses the warfighter capability needs and the cost is commensurate with the additional capability.

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ENCLOSURE B

RESPONSIBILITIES

1. Joint Requirements Oversight Council (JROC). Reference m specifies JROC and JCB responsibilities.

a. The JROC reviews programs designated as JROC Interest and supports the acquisition review process. The JROC, at its discretion, may review any JCIDS document or any other issues which may have joint interest. The JROC will also review programs at the request of the Secretary of Defense, Deputy Secretary of Defense, USD(AT&L), USecAF (as DOD Space MDA), or the Director of Central Intelligence MRB.

b. The JROC will determine which FCB will be established, disbanded or combined. The JROC will also determine which functional area(s) are assigned to each FCB and the lead organization responsible for chairing each FCB.

c. For JROC Interest proposals, the JROC will validate the KPPs and approve the documents.

2. Functional Capabilities Boards. Each FCB implemented by the JROC is responsible for all aspects, materiel and nonmateriel, of its assigned functional area(s). Each FCB will work as the lead coordinating body to ensure that the joint force is best served throughout the JCIDS and acquisition process. Each FCB will:

a. Coordinate, integrate and deconflict the efforts of all DOD Components within its assigned functional area(s). Each FCB will ensure that new capabilities are conceived and developed in an integrated joint warfighting context.

b. Ensure that DOTMLPF aspects of new capabilities are being appropriately considered in the JCIDS documents. This includes overarching DOTMLPF changes necessary to meld a FoS or SoS with multiple CDD and CPD into an effective capability.

c. Assist in the adjudication of comments written during the JCIDS staffing process.

d. Evaluate and forward complete JCIDS documents designated as JROC Interest to the JROC for validation and approval.

e. Recommend the retirement of unnecessary JCIDS documents that fall within its functional area(s).

f. At least annually, review and endorse a prioritized list of DOTMLPF warfighting capability gaps within its assigned functional area(s), as recommended by the FCB Working Group.

h. Ensure that D, PA&E, USD(AT&L) and ASD(NII) have the opportunity to participate in or review the analysis conducted in support of ICD designated as JROC Interest. D, PA&E, USD(AT&L), and ASD(NII) should be engaged early to ensure that the analysis plan adequately addresses a sufficient range of materiel approaches.

i. When documents potentially impacting national intelligence capabilities come to the FCB for validation/approval, the FCB Chair will invite the MRB staff to send a representative to attend/co-chair the FCB meeting.

j. Ensure that JFC are developed and updated as required to accurately implement overarching policies specified in documents such as the National Security Strategy, the Transformational Planning Guidance, the Quadrennial Defense Review, Joint Vision and future joint concepts, the National Military Strategy, the Strategic Planning Guidance and the Joint Programming Guidance.

k. Request, as necessary, DOD Components to support FCB activities in support of this instruction. Tasking issues that cannot be resolved between the FCB(s) and the Component(s) will be forwarded to the JROC (through the JCB) for resolution. When support from organizations reporting to the Secretary of Defense is required, the FCB Chairman will seek this support from the responsible office within the Office of the Secretary of Defense (OSD).

l. Ensure that overarching joint DOTMLPF change recommendations are addressed through the process prescribed in reference i.

m. At least annually, review (supported by appropriate FCB Working Groups) the functional area portfolio of JROC Interest materiel proposals and DOTMLPF change recommendations for completeness and prioritization.

n. Ensure that the integrated architecture(s) (when available) is updated as required. Provide assumptions, attributes and metrics for the functional area across the range of military operations and through time.

o. Evaluate the assigned JPD of all initiatives and make a recommendation to the Gatekeeper to change the JPD as required.

p. If the lead FCB determines they are the inappropriate selection for a given document, coordinate with the appropriate FCB and make a recommendation to the Gatekeeper to reassign the lead FCB role.

q. When an FCB is designated as supporting, they will perform the appropriate assessment/analysis of the capability and provide a summary of that assessment/analysis to the lead FCB.

r. The FCB will review and assess non-JCIDS documents and briefings as assigned by the JROC and the Gatekeeper when the JROC desires an FCB opinion in these areas.

3. Functional Capability Board Working Groups. The FCB Working Groups will operate in accordance with reference n. In support of the JCIDS process, each FCB Working Group will:

a. Coordinate with and assist the sponsor during JCIDS document development to ensure cross-Component harmonization of proposals, and that joint warfighting capability gaps are being adequately addressed.

b. Support the Gatekeeper in determining the JPD and the lead and/or supporting FCBs for each JCIDS document.

c. Lead FCB Working Group will analyze JCIDS documents and coordinate with supporting FCB Working Groups to ensure all joint warfighting aspects have been considered in the analysis. Provide context and a summary of the FCB Working Group's independent assessment regarding JCIDS proposals to the FCB when considering capabilities documents.

d. Supporting FCB Working Group will coordinate with and support the lead FCB Working Group analysis of JCIDS documents.

e. Coordinate with the sponsor to adjudicate any potential issues prior to or as a result of formal staffing.

f. Provide a summary analysis and recommendation to the FCB/JCB/JROC on validation and/or approval of JCIDS documents.

g. Continually review the assigned functional area through analysis as directed by the JROC and other analytic efforts to identify capability shortfalls.

h. Develop prioritized lists of capability shortfalls and current JCIDS proposals within assigned functional areas. These lists will be submitted to and approved by the JROC annually.

4. Sponsor. Within the JCIDS process, the sponsor is expected to:

a. Lead the JCIDS analyses (including the functional area analysis, the functional needs analysis and the functional solution analysis (as described in reference c)) required to develop the ICD, while engaging and collaborating with appropriate organizations.

b. Make affordability determinations in the evaluation of various approaches to delivering capabilities to the warfighter.

c. Develop JCIDS documentation as specified in this instruction and present this documentation for review through the KM/DS tool.

d. Resolve issues that arise during the staffing, certification and validation processes. All comments will be adjudicated prior to JCB/JROC briefings. Unresolved critical comments will be briefed to the JCB/JROC for decision.

e. When the system contributes to FoS or SoS capabilities, coordinate with sponsors of the related CDDs and CPDs to synchronize development and delivery of the systems and required overarching DOTMLPF changes.

f. Present briefings to decision bodies, as required.

g. Coordinate/collaborate with non-DOD agencies and departments on the development of interagency capabilities.

h. When the sponsor disagrees with the assigned JPD, an appeal can be made to the FCB or the Gatekeeper by providing a memorandum with justification for changing the JPD.

5. Joint Staff and Defense Intelligence Agency (DIA). The Joint Staff and DIA provide review, coordination and certification functions in support of the JCIDS process. These functions include IT and NSS interoperability and supportability certification, intelligence certification, threat validation, and munitions insensitivity certification. Certification process details are provided in reference c.

a. Director, J-2, Joint Staff, and Director, DIA. DIA/J-2 will review and conduct intelligence certification for JCIDS documents, designated as JROC Interest or Joint Integration for intelligence supportability and impact to joint intelligence strategy, policy, and architecture planning. DIA will also perform a threat validation. Additionally, DIA/J-2 will review and certify intelligence requirements, deficiencies and solutions documented in the Information Support Plans (ISP) in accordance with references g and l.

b. Director, J-3, Joint Staff. J-3 is the office of primary responsibility for the Global Command and Control System (GCCS), its successor, Joint Command and Control (JC2), and the common operational picture (COP) in accordance with reference o. J-3 will review all GCCS functional capabilities identified in CDD, CPD and CRD. J-3 will review and comment on all JCIDS documents designated as JROC Interest or Joint Integration for operational suitability, sufficiency and supportability to the warfighter.

c. Director, J-4, Joint Staff. J-4 will perform munitions insensitivity certifications and will process insensitive munitions waiver requests as required.

d. Director, J-6, Joint Staff

(1) J-6 will perform IT and NSS interoperability and supportability certifications on all CDDs, CPDs and CRDs, designated as JROC Interest or Joint Integration in accordance with references g, k and l.

(2) J-6 will ensure that CDDs and CPDs include "embedded instrumentation" in system tradeoff studies and design analyses.

e. Director, J-7, Joint Staff. As the Executive Agent for Transformation Implementation, J-7 will use reference h, to review recommendations resulting from joint experimentation that will affect joint DOTMLPF. Recommendations indicating potential materiel solutions will be forwarded to the appropriate FCB for review. J-7 facilitates the staffing of nonmaterial Capability Improvement Recommendations and has oversight responsibilities under reference h to ensure co-evolution of capability improvements across DOTMLPF.

f. Director, J-8, Joint Staff. Director, J-8, is the appointed JROC Secretary whose staff makes up the JROC Secretariat. Specific J-8 responsibilities are outlined in reference m. Other responsibilities within the Directorate include:

(1) The Vice Director, J-8 will serve as the "Gatekeeper" of the JCIDS process. VDJ-8, with the assistance of J-6, J-7, the FCB Working Group leads and US Joint Forces Command (USJFCOM), will assign a JPD and evaluate all JCIDS documents. The Gatekeeper will make the initial determination on the following:

(a) JPD assignment and who has validation and/or approval authorities.

(b) The lead and supporting FCBs.

(c) Assigned J-8 Capabilities and Acquisition Division lead.

(d) Ensure DOTMLPF change requests are addressed in accordance with reference i.

(2) At least annually, the Gatekeeper will review current DOTMLPF warfighting capabilities proposals for cross-functional area prioritization with the assistance of the FCB Working Groups.

(3) Periodically, the Gatekeeper will present a listing of JCIDS proposals and their assigned JPD to the JROC for approval.

(4) Coordination with the MRB for those capabilities with a parallel development path between the defense and national intelligence communities.

(5) Evaluate the recommendations of the lead FCB and/or sponsor to change an assigned JPD, and if necessary, adjust the assigned JPD to appropriately reflect the joint warfighting impact of the proposal.

(6) Evaluate the recommendation of the lead and supporting FCBs to change the lead FCB assignment, and if necessary, change the lead FCB.

6. Services. The Services will coordinate on JROC Interest documents and may review Joint Integration and Independent documents developed by other sponsors to identify opportunities for cross-Component utilization and harmonization of capabilities. This coordination/review may lead to a recommendation to change the JPD.

7. Combatant commanders

a. The combatant commanders will be provided the opportunity to review and comment on all documents designated as JROC Interest before the documents are validated and approved. Combatant commanders also are provided the opportunity to review and comment on documents designated as Joint Integration during J-2 and J-6 certification processes.

b. When requested by the JROC, combatant commanders may submit CRDs for JCIDS staffing. Additionally, combatant commanders may independently conduct JCIDS analysis and submit capabilities documents. In many circumstances, it may be appropriate for the combatant commander to identify initiatives to the responsible Component. The Component may then coordinate appropriate analysis and documentation activities.

c. Combatant commanders have the opportunity to participate in all FCB deliberations. This opportunity may be facilitated by the use of video teleconferencing, or other means, but remains the responsibility of the combatant commander to exercise and coordinate.

d. US Joint Forces Command (USJFCOM)

(1) Commander, USJFCOM (CDRUSJFCOM), is designated the Executive Agent for conducting joint warfighting experimentation. CDRUSJFCOM is responsible to the Chairman for creating and refining future joint warfighting concepts and integration of Service efforts in support of the current Joint Vision. CDRUSJFCOM will conduct joint experimentation to explore, demonstrate, and evaluate joint concepts. Experimentation will identify the breakthrough warfighting capabilities necessary to achieve the Joint Vision. USJFCOM recommendations from joint experimentation having potential

materiel solutions will be forwarded to the JROC in accordance with reference i. These recommendations could be the basis to initiate a JCIDS proposal.

(2) CDRUSJFCOM will serve as the Chairman's advocate for joint warfighting interoperability. USJFCOM will provide the warfighter perspective during the development of joint concepts and integrated architectures to ensure that joint forces have interoperable systems. In addition to the responsibilities of other combatant commanders, USJFCOM will support the Chairman in the following areas:

(a) Support the Gatekeeper by making recommendations regarding the joint potential designation, and the lead and supporting FCBs assigned to JCIDS proposals.

(b) Comment during the JCIDS staffing process on whether Net-Ready KPP contained in CDD, CPD and CRD proposals meet recognized standards in accordance with references g, k, and l.

(c) Conduct training workshops that directly address joint/Service capability development. The main goal of the training is to help Joint Staff, Service, combatant commander and agency staff personnel understand joint capability development, the impact of the DOD's increased commitment to ensuring interoperability of warfighter systems, how to achieve program milestones and how to reduce the cycle time required for document approval. As follow-on to the training, USJFCOM also provides informal document reviews and coordination. Resources, training materials, important links and points of contact are hosted on the USJFCOM website at http://www.teao.saic.com/jfcom.

e. US Special Operations Command (USSOCOM). Congress has given USSOCOM specific title 10 authority within a unique major force appropriation category (reference a, section 167). As a result, USSOCOM can establish, validate, and approve USSOCOM capabilities and budget for Joint Integration and Independent programs. USSOCOM will forward all programs to the Gatekeeper for initial determination of JPD and review by an FCB. Programs assigned a JPD of Independent or Joint Integration will be returned to USSOCOM for action. JROC Interest programs will be forwarded for JROC validation and approval.

8. Other DOD Components. Coordinate on JCIDS documents developed by other sponsors to identify opportunities for cross-Component utilization and harmonization of capabilities. Make recommendations to the FCB on documents designated as Joint Integration or Independent that may have broader applicability and therefore the designation should change to JROC Interest.

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ENCLOSURE C

REFERENCES

a. Title 10, United States Code, sections 153, 163, 167, 181.

b. "Transformation Planning Guidance," Secretary of Defense, April 2003.

c. CJCSM 3170.01 Series, "Operation of the Joint Capabilities Integration and Development System."

d. DOD Directive (DODD) 5000.1, 12 May 2003, "The Defense Acquisition System."

e. DOD Instruction (DODI) 5000.2, 12 May 2003, "Operation of the Defense Acquisition System."

f. National Security Space Acquisition Policy 03-01, 6 Oct 2003, "Guidance for DOD Space System Acquisition Process."

g. CJCSI 6212.01 Series, "Interoperability and Supportability of Information Technology and National Security Systems."

h. CJCSI 3010.02 Series, "Joint Vision Implementation Master Plan."

i. CJCSI 3180.01 Series, "Joint Requirements Oversight Council (JROC) Programmatic Processes for Joint Experimentation and Joint Resource Change Recommendations."

j. "Joint Operations Concepts," Secretary of Defense, November 2003.

k. DODD 4630.5 Series, "Interoperability, and Supportability of Information Technology (IT) and National Security Systems (NSS)."

l. DODI 4630.8 Series, "Procedures for Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)."

m. CJCSI 5123.01 Series, "Charter of the Joint Requirements Oversight Council."

n. CJCSI 3137.01 Series, "The Joint Warfighting Capabilities Assessment Process."

o. CJCSI 6721.01 Series, "Global Command and Control Management Structure."

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GLOSSARY

PART I - ACRONYMS

ACAT	acquisition category
ACTD	advanced concept technology demonstration
AIS	automated information system
AoA	analysis of alternatives
APB	acquisition program baseline
ASD(HA)	Assistant Secretary of Defense (Health Affairs)
ASD(NII)	Assistant Secretary of Defense for Networks and Information Integration
AT&L	acquisition, technology and logistics
C4I	command, control, communications, computers and intelligence
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CJCSM	Chairman of the Joint Chiefs of Staff Manual
CDD	Capability Development Document
CIO	chief information officer
COCOM	combatant command
COP	common operational picture
CPD	Capability Production Document
CRD	Capstone Requirements Document
DAB	Defense Acquisition Board
DIA	Defense Intelligence Agency
DJSM	Director, Joint Staff memorandum
DOD	Department of Defense
DODD	Department of Defense directive
DODI	Department of Defense instruction
DOT&E	Director of Operational Test and Evaluation

DOTMLPF	doctrine, organization, training, materiel, leadership and education, personnel and facilities
D, PA&E	Director, Program Analysis and Evaluation
FAA	functional area analysis
FCB	Functional Capabilities Board
FNA	functional needs analysis
FoS	family of systems
FSA	functional solution analysis
GCCS	Global Command and Control System
GIG	Global Information Grid
ICD	Initial Capabilities Document
IOT&E	initial operational test and evaluation
IPL	integrated priority list
ISP	Information Support Plan
IT	information technology
ITAB	Information Technology Acquisition Board
JC2	Joint Command and Control
JCB	Joint Capabilities Board
JCIDS	Joint Capabilities Integration and Development System
JFC	Joint Functional Concept
JIC	Joint Integrating Concept
JOC	Joint Operating Concept
JOpsC	Joint Operations Concepts
JPD	Joint Potential Designator
JPG	Joint Programming Guidance
JROC	Joint Requirements Oversight Council
JROCM	JROC memorandum
JWSTP	Joint Warfighting Science and Technology Plan

KDP	Key Decision Point
KM/DS	Knowledge Management/Decision Support
KPP	key performance parameter
MDA	Milestone Decision Authority
MNS	Mission Need Statement
MOE	measures of effectiveness
MRB	Mission Requirements Board
NFIP	National Foreign Intelligence Program
NR-KPP	Net-Ready Key Performance Parameter
NSS	National Security Systems
OASD	Office of the Assistant Secretary of Defense
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
OUSD	Office of the Under Secretary of Defense
PA&E	program analysis and evaluation
PPBE	Planning, Programming, Budgeting, and Execution
SDD	System Development and Demonstration
SoS	system of systems
SPG	Strategic Planning Guidance
UJTL	Universal Joint Task List
USecAF	Under Secretary of the Air Force
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
USD(I)	Under Secretary of Defense for Intelligence
USJFCOM	United States Joint Forces Command
USSOCOM	United States Special Operations Command

PART II – DEFINITIONS

Acquisition Category (ACAT) - Categories established to facilitate decentralized decision-making and execution, and compliance with statutorily imposed requirements. The categories determine the level of review, decision authority and applicable procedures. Reference e provides the specific definition for each acquisition category.

Acquisition Program Baseline (APB) - Each program's APB is developed and updated by the program manager and will govern the activity by prescribing the cost, schedule and performance constraints in the phase succeeding the milestone for which it was developed.

Advanced Concept Technology Demonstration (ACTD) - A demonstration of the military utility of a significant new technology and an assessment to clearly establish operational utility and system integrity.

Analysis of Alternatives (AoA) - The evaluation of the operational effectiveness, operational suitability and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, including the sensitivity of each alternative to possible changes in key assumptions or variables.

approval - The formal or official sanction of the identified capability described in the capability documentation. Approval also certifies that the documentation has been subject to the uniform process established by the DOD 5000 series.

architecture - The structure of components, their relationships and the principles and guidelines governing their design and evolution over time.

attribute - A testable or measurable characteristic that describes an aspect of a system or capability.

Automated Information System (AIS) - An acquisition program that acquires information technology (IT), except IT that involves equipment that is an integral part of a weapon system or weapons system; or is a tactical communication system.

capability - The ability to execute a specified course of action. It is defined by an operational user and expressed in broad operational terms in the format of an initial capabilities document or a DOTMLPF change recommendation. In the case of material proposals, the definition will progressively evolve to DOTMLPF performance attributes identified in the CDD and the CPD.

Capability Development Document (CDD) - A document that captures the information necessary to develop a proposed program(s), normally using an

evolutionary acquisition strategy. The CDD outlines an affordable increment of militarily useful, logistically supportable and technically mature capability.

capability gaps - Those synergistic resources that are unavailable but potentially attainable to the operational user for effective task execution. These resources may come from the entire range of DOTMLPF solutions.

Capability Production Document (CPD) - A document that addresses the production elements specific to a single increment of an acquisition program.

Capstone Requirements Document (CRD) - A document that contains capabilities-based requirements that facilitates the development of CDDs and CPDs by providing a common framework and operational concept to guide their development.

certification - A statement of adequacy provided by a responsible agency for a specific area of concern in support of the validation process.

comment priorities

a. critical - A critical comment indicates nonconcurrence in the document, for both the O-6 and flag review, until the comment is satisfactorily resolved.

b. substantive - A substantive comment is provided because a section in the document appears to be or is potentially unnecessary, incorrect, misleading, confusing or inconsistent with other sections.

c. administrative - An administrative comment corrects what appears to be a typographical, format or grammatical error.

DOD Component - The DOD Components consist of the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the combatant commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, DOD Field Activities and all other organizational entities within the Department of Defense.

DOD 5000 series - DOD 5000 series refers collectively to DODD 5000.1 and DODI 5000.2, references d and e, respectively.

embedded instrumentation - Data collection and processing capabilities, integrated into the design of a system for one or more of the following uses: diagnostics, prognostics, testing or training.

environmental quality - The condition of the following elements that make up the environment: flora, fauna, air, water, land and cultural resources.

evolutionary acquisition - DOD's preferred strategy for rapid acquisition of mature technology for the user. An evolutionary approach delivers capability in increments, recognizing up-front the need for future capability improvements.

family of systems (FoS) - A set or arrangement of independent systems that can be arranged or interconnected in various ways to provide different capability needs. The mix of systems can be tailored to provide desired capabilities, dependent on the situation. An example of a FoS would be an anti-submarine warfare FoS consisting of submarines, surface ships, aircraft, static and mobile sensor systems and additional systems. Although these systems can independently provide militarily useful capabilities, in collaboration they can more fully satisfy a more complex and challenging capability: to detect, localize, track, and engage submarines.

functional area - A broad scope of related joint warfighting skills and attributes that may span the range of military operations. Specific skill groupings that make up the functional areas are approved by the JROC.

Functional Capabilities Board (FCB) - A permanently established body that is responsible for the organization, analysis, and prioritization of joint warfighting capabilities within an assigned functional area.

Functional Capabilities Board Working Group - The FCB Working Groups are the analytic support for the FCBs. They perform the review and assessment of JCIDS documents, work with the sponsors to resolve issues, and make recommendations to the FCB.

Gatekeeper - That individual who makes the initial joint potential designation of JCIDS proposals. This individual will also make a determination of the lead and supporting FCBs for capability proposals. The Gatekeeper is supported in these functions by USJFCOM, J-6, J-7, and the FCB Working Group leads. The Vice Director, J-8 serves as the Gatekeeper.

increment - A militarily useful and supportable operational capability that can be effectively developed, produced or acquired, deployed and sustained. Each increment of capability will have its own set of threshold and objective values set by the user.

Information Assurance (IA) - Information operations that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality and non-repudiation. This includes providing for restoration of information systems by incorporating protection, detection and reaction capabilities.

Information Technology (IT) - Any equipment, or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage,

manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information by the executive agency. This includes equipment used by a Component directly, or used by a contractor under a contract with the Component, which (i) requires the use of such equipment, or (ii) requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. The term "IT" also includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services) and related resources. Notwithstanding the above, the term "IT" does not include any equipment that is acquired by a Federal contractor incidental to a Federal contract. The term "IT" includes National Security Systems (NSS).

Initial Capabilities Document (ICD) - Documents the need for a materiel approach to a specific capability gap derived from an initial analysis of materiel approaches executed by the operational user and, as required, an independent analysis of materiel alternatives. It defines the capability gap in terms of the functional area, the relevant range of military operations, desired effects and time. The ICD summarizes the results of the DOTMLPF analysis and describes why nonmateriel changes alone have been judged inadequate in fully providing the capability.

insensitive munitions - Munitions that minimize the probability of inadvertent initiation and the severity of subsequent collateral damage as a result of unplanned, external stimuli.

integrated architecture - An architecture consisting of multiple views or perspectives (operational view, systems view and technical standards view) that facilitates integration, promotes interoperability, and permits identification and prioritization of capability shortfalls and redundancies.

interoperability - The ability of systems, units or forces to provide data, information, materiel and services to and accept the same from other systems, units or forces and to use the data, information, materiel and services so exchanged to enable them to operate effectively together. IT and NSS interoperability includes both the technical exchange of information and the end-to-end operational effectiveness of that exchanged information as required for mission accomplishment.

Joint Capabilities Board (JCB) - The JCB functions to assist the JROC in carrying out its duties and responsibilities. The JCB reviews and, if appropriate, endorses all JCIDS and DOTMLPF proposals prior to their submission to the JROC. The JCB is chaired by the Joint Staff, J-8, Director of Force Structure, Resources, and Assessment. It is comprised of Flag Officer/General Officer representatives of the Services.

joint experimentation - An iterative process for developing and assessing concept-based hypotheses to identify and recommend the best value-added solutions for changes in DOTMLPF required to achieve significant advances in future joint operational capabilities.

joint force - The term "Joint Force" in its broadest sense refers to the Armed Forces of the United States. The term "joint force" (lower case) refers to an element of the Armed Forces that is organized for a particular mission or task. Because this could refer to a joint task force or a unified command, or some yet unnamed future joint organization, the more generic term "a joint force" will be used, similar in manner to the term "joint force commander" in reference to the commander of any joint force.

Joint Functional Concept (JFC) - An articulation of how a future joint force commander will integrate a set of related military tasks to attain capabilities required across the range of military operations. Although broadly described within the Joint Operations Concepts, they derive specific context from the joint operating concepts and promote common attributes in sufficient detail to conduct experimentation and measure effectiveness.

Joint Integrating Concept (JIC) - A JIC describes how a joint force commander integrates functional means to achieve operational ends. It includes a list of essential battlespace effect (including essential supporting tasks, measures of effectiveness, and measures of performance) and a CONOPS for integrating these effects together to achieve the desired endstate.

Joint Operating Concept (JOC) - A description of how a future Joint Force Commander will plan, prepare, deploy, employ, and sustain a joint force against potential adversaries' capabilities or crisis situations specified within the range of military operations. Joint Operating Concepts serve as "engines of transformation" to guide the development and integration of joint functional and Service concepts to describe joint capabilities. They describe the measurable detail needed to conduct experimentation, permit the development of measures of effectiveness, and allow decision makers to compare alternatives and make programmatic decisions.

Joint Operations Concepts (JOpsC) - An overarching description of how the future Joint Force will operate across the entire range of military operations. It is the unifying framework for developing subordinate joint operating concepts, joint functional concepts, enabling concepts, and integrated capabilities. It assists in structuring joint experimentation and assessment activities to validate subordinate concepts and capabilities-based requirements.

Joint Potential Designator (JPD) - A designation assigned by the Gatekeeper to specify JCIDS validation, approval and interoperability expectations.

a. "JROC Interest" designation will apply to all ACAT I/IA programs and ACAT II and below programs where the capabilities have a significant impact on joint warfighting. This designation may also apply to intelligence capabilities that support DOD and national intelligence requirements. These documents will be staffed through the JROC for validation and approval. All CRDs will be designated as JROC Interest. DOTMLPF change proposals will also be designated as JROC Interest in accordance with reference c.

b. "Joint Integration" designation will apply to ACAT II and below programs where the concepts and/or systems associated with the document do not significantly affect the joint force and an expanded review is not required, but Information Technology and National Security Systems (IT and NSS) interoperability, intelligence or munitions certification is required. Once the required certification(s) are completed, the proposal may be reviewed by the FCB. Joint Integration proposals are validated and approved by the sponsoring Component.

c. "Independent" designation will apply to ACAT II and below programs where the concepts and/or systems associated with the document do not significantly affect the joint force, an expanded review is not required, and no certifications are required. Once designated Independent, the FCB may review the proposal. These documents are returned to the sponsoring Component for validation and approval.

Joint Requirements Oversight Council Memorandum (JROCM) - Official JROC correspondence generally directed to an audience(s) external to the JROC. JROCMs are usually decisional in nature.

Key Decision Point (KDP) - The equivalent of a Milestone for space systems.

Key Performance Parameters (KPP) - Those minimum attributes or characteristics considered most essential for an effective military capability. KPPs are validated by the JROC for JROC Interest documents, and by the DOD Component for Joint Integration or Independent documents. CDD and CPD KPPs are included verbatim in the APB.

logistic support - Logistic support encompasses the logistic services, materiel and transportation required to support the continental United States-based and worldwide-deployed forces.

materiel solution - A defense acquisition program (nondevelopmental, modification of existing systems, or new program) that satisfies, or is a primary basis for satisfying identified warfighter capabilities. In the case of FoS and SoS approaches, an individual materiel solution may not fully satisfy a necessary capability gap on its own.

measures of effectiveness (MOE) - A qualitative or quantitative measure of a system's performance or a characteristic that indicates the degree to which it performs the task or meets a requirement under specified conditions. MOEs should be established to measure the system's capabilities to produce or accomplish the desired result.

Milestones - Major decision points that separate the phases of an acquisition program.

Milestone Decision Authority (MDA) - The individual designated, in accordance with criteria established by the USD(AT&L), by the ASD(NII) (for Automated Information System acquisition programs), or by the USecAF (as the DOD Space MDA) to approve entry of an acquisition program into the next phase.

military department - A department headed by a civilian Secretary appointed by the President and includes a Military Service (the Department of the Navy includes two Services).

militarily useful capability - A capability that achieves military objectives through operational effectiveness, suitability and availability, which is interoperable with related systems and processes, transportable and sustainable when and where needed, and at costs known to be affordable over the long term.

Mission Requirements Board - The Mission Requirements Board manages the national requirements process that reviews, validates and approves national requirements for future intelligence capabilities and systems. It is the senior validation and approval authority for future intelligence requirements funded within the National Foreign Intelligence Program (NFIP), and provides advice and council on future requirements funded outside the NFIP.

National Security Systems (NSS) - Telecommunications and information systems, operated by the DOD -- the functions, operation or use of which involves (1) intelligence activities, (2) cryptologic activities related to national security, (3) the command and control of military forces, (4) equipment that is an integral part of a weapon or weapons systems, or (5) is critical to the direct fulfillment of military or intelligence missions. Subsection (5) in the preceding sentence does not include procurement of automatic data processing equipment or services to be used for routine administrative and business applications (including payroll, finance, logistics and personnel management applications).

Net-Ready Key Performance Parameter (NR-KPP) - The NR-KPP assesses information needs, information timeliness, information assurance, and net-ready attributes required for both the technical exchange of information and the end-to-end operational effectiveness of that exchange. The NR-KPP consists of verifiable performance measures and associated metrics required to

evaluate the timely, accurate, and complete exchange and use of information to satisfy information needs for a given capability. The NR-KPP is comprised of the following elements:

- Compliance with the Net-Centric Operations and Warfare (NCOW) Reference Model (RM)
- Compliance with applicable GIG Key Interface Profiles (KIPs)
- Verification of compliance with DOD information assurance requirements
- Supporting integrated architecture products required to assess information exchange and use for a given capability

nonmateriel Solution - Changes in doctrine, organization, training, leadership and education, personnel or facilities to satisfy identified functional capabilities.

objective value - The desired operational goal associated with a performance attribute, beyond which any gain in utility does not warrant additional expenditure. The objective value is an operationally significant increment above the threshold. An objective value may be the same as the threshold when an operationally significant increment above the threshold is not significant or useful.

operational effectiveness - Measure of the overall ability to accomplish a mission when used by representative personnel in the environment planned or expected for operational employment of the system considering organization, doctrine, tactics, supportability, survivability, vulnerability and threat.

operational suitability - The degree to which a system can be placed and sustained satisfactorily in field use with consideration given to availability, compatibility, transportability, interoperability, reliability, wartime usage rates, maintainability, safety, human factors, habitability, manpower, logistics, supportability, logistics supportability, natural environment effects and impacts, documentation and training requirements.

operator - An operational command or agency that employs the acquired system for the benefit of users. Operators may also be users.

sponsor - The DOD component responsible for all common documentation, periodic reporting and funding actions required to support the capabilities development and acquisition process for a specific capability proposal.

sustainability - The ability to maintain the necessary level and duration of operational activity to achieve military objectives. Sustainability is a function

of providing for and maintaining those levels of ready forces, materiel and consumables necessary to support military effort.

sustainment - The provision of personnel, logistic and other support required to maintain and prolong operations or combat until successful accomplishment or revision of the mission or of the national objective.

system of systems (SoS) - A set or arrangement of interdependent systems that are related or connected to provide a given capability. The loss of any part of the system will degrade the performance or capabilities of the whole. An example of a SoS could be interdependent information systems. While individual systems within the SoS may be developed to satisfy the peculiar needs of a given user group (like a specific Service or agency), the information they share is so important that the loss of a single system may deprive other systems of the data needed to achieve even minimal capabilities.

threshold value - A minimum acceptable operational value below which the utility of the system becomes questionable.

user - An operational command or agency that receives or will receive benefit from the acquired system. Combatant commanders and their Service Component commands are the users. There may be more than one user for a system. Because the Service Component commands are required to organize, equip and train forces for the combatant commanders, they are seen as users for systems. The Chiefs of the Services and heads of other DOD Components are validation and approval authorities and are not viewed as users.

user representative - A command or agency that has been formally designated to represent single or multiple users in the capabilities and acquisition process. The Services and the Service Components of the combatant commanders are normally the user representatives. There should only be one user representative for a system.

validation - The review of documentation by an operational authority other than the user to confirm the operational capability. Validation is a precursor to approval.

Validation Authority - The individual within the DOD Components charged with overall capability definition and validation. The Vice Chairman of the Joint Chiefs of Staff, in the role as the Chairman of the JROC, is the Validation Authority for all potential major defense acquisition programs. The Validation Authority for JCIDS issues is dependent upon the JPD of the program or initiative as specified below:

a. JROC Interest - The JROC is the Validation Authority.

b. Joint Integration - The sponsor is the Validation Authority.

c. Independent - The sponsor is the Validation Authority.

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