CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION

J-8
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CJCSI 3170.01F
1 May 2007

JOINT CAPABILITIES INTEGRATION AND DEVELOPMENT SYSTEM

References: See Enclosure D

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 title 10, United States Code, sections 153, 163, 167, and 181 (reference a). Validated and approved JCIDS documents provide a record of the JROC's advice and assessment in support of these statutory mandates. Additionally, the JCIDS is a key element in CJCS 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 3170.01E, 11 May 2005, "Joint Capabilities Integration and Development System" is canceled.

3. Applicability. In accordance with references d, e, and f, this instruction applies to the Joint Staff, Services, combatant commands, Defense agencies, Defense field activities, and all other organizational entities within DOD. 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. Executive Summary.

   a. There are three key processes in the Department of Defense that must work in concert to deliver the capabilities required by the warfighters: the requirements process; the acquisition process; and the Planning, Programming,

Budgeting, and Execution (PPBE) process. To produce weapon systems that provide the capabilities our warfighters need, these three processes must be aligned to ensure consistent decisions are made. This instruction focuses on the requirements process as implemented in JCIDS.

   b. The JCIDS process was created to support the statutory requirements of the JROC to validate and prioritize joint warfighting requirements. JCIDS is also a key supporting process for DOD acquisition and PPBE processes. The primary objective of the JCIDS process is to ensure the joint warfighter receives the capabilities required to successfully execute the missions assigned to them. This is done through an open process that provides the JROC the information they need to make decisions on required capabilities. The requirements process supports the acquisition process by providing validated capabilities and associated performance criteria to be used as a basis for acquiring the right weapon systems. Additionally, it provides the PPBE process with prioritization and affordability advice.

   c. The JCIDS process is initiated through the execution of a capabilities-based assessment (CBA). The CBA is based on an existing Joint Operating Concept (JOC), Joint Integrating Concept (JIC), or concept of operations (CONOPs). The CBA identifies: the capabilities (and operational performance criteria) required to successfully execute missions; the shortfalls in existing weapon systems to deliver those capabilities and the associated operational risks; and the possible solution space for the capability shortfalls. The results of the CBA are documented in a Joint Capabilities Document (JCD) or an Initial Capabilities Document (ICD). The JROC is performing two functions when it approves a JCD or an ICD. The JROC is validating that there is a need to address the capability gaps and that there are potentially affordable and technically feasible solutions to the gaps. This does not imply that the JROC is advocating a specific technical solution when the JCD or ICD is approved. The JROC may also identify capability gaps where the operational risk is at an acceptable level and therefore no further action will be taken. Finally, the JROC may approve a non-materiel approach (changes to doctrine, organization, etc.) to address the capability gap as an alternative or adjunct to advocating for a new materiel solution. The approved JCD or ICD becomes the basis for further analysis by the Services and/or agencies to identify the most appropriate weapon system to provide the desired capability.

   d. The Service or agency responsible for acquiring the weapon system performs analysis based on the JCD or ICD to identify the best technical approach. A Capabilities Development Document (CDD) is then developed to describe that approach. The primary objective of the CDD is to specify the system technical performance criteria of the weapon system that will deliver the capability that meets operational performance criteria specified in the JCD or ICD. The JROC is performing several functions in approving the CDD. They are validating the key performance parameters (KPP) and their associated

threshold and objective values. They are assessing the risks in meeting those KPPs in terms of cost, schedule and technology maturity. Finally, they are assessing the affordability of the system as compared to the operational capability being delivered. The JROC approval of the CDD becomes one of the key factors in the final decision by the milestone decision authority (MDA) to initiate a development program.

e. Upon completion of the system development process, the acquiring Service or agency delivers a Capability Production Document (CPD). The primary objective of the CPD is to describe the actual performance of the weapon system that will go into production. The primary difference between a CPD and a CDD is that the CPD is informed by the lessons learned during the development process. The JROC objective in approving the CPD is to ensure that the weapon system being delivered meets the needs originally defined in the JCD or ICD at an affordable cost. If the weapon system does not meet all of the threshold levels for the KPPs, the JROC will assess whether or not the weapon system remains operationally acceptable. The approved CPD becomes the basis for the MDA decision to approve production of the system.

f. The JCIDS process was designed to be a robust process to support the complex decisions required of the JROC and the acquisition community in identifying and procuring future capabilities. Recognizing that not all capabilities/weapon systems require the same level of consideration, the JCIDS process is tailorable. The JROC has identified several alternative paths to allow accelerated identification of capability gaps and potential solutions, and to allow them to enter into the JCIDS process at the appropriate stage to deliver those capabilities more rapidly.

g. The JROC continues to refine the JCIDS process and the information they require to ensure they are making effective, appropriate decisions in a timely manner. This update to the policies and processes continues that evolution of JCIDS to ensure our ability to continue to meet the needs of the joint warfighter.

5. Policy. See Enclosure B.

6. Definitions. See Glossary.

7. Responsibilities. See Enclosure C.

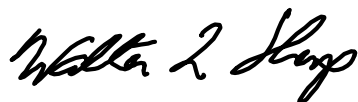8. Summary of Changes. This revision:

a. Reflects an update to the instruction issued 11 May 2005 to reflect lessons learned and changes as a result of implementation of the JCIDS process.

b. Implements the staffing streamlining guidance in reference j to allow bypassing the flag coordination process if a document has no unresolved critical comments after Phase I staffing.

c. Implements the joint information joint potential designator (JPD) per reference j.

d. Implements the process for endorsing safe weapons in a joint warfighting environment per direction in reference k.

e. Incorporates congressionally mandated KPPs for force protection and survivability per reference l.

f. Implements changes as directed in reference m, to include: incorporating use of joint capability areas (JCA); defining a more rapid process for updating KPPs; deleting the post independent analysis as a requirement; adding the requirement for a CBA study plan for JROC-directed CBAs; including consideration of alternate CONOPs in the CBA; requiring a more complete understanding of the threats and mitigation strategy; and permitting the use of CONOPs to initiate a CBA.

g. Implements changes resulting from the KPP study, including: a new mandatory KPP for sustainment; the selected application of KPPs on system training and energy efficiency; a recommended approach to identify applicable KPPs; and ensuring that the timeframe when a capability is required is identified in the JCIDS documentation per reference n.

h. Implements a more structured comment resolution process to ensure critical comments are being resolved in a timely manner per reference o.

i. Removes the requirement for an insensitive munitions certification or waiver per JROC direction.

9. 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.

10. <u>Effective Date</u>. This instruction is effective upon receipt.

WALTER L. SHARP
Lieutenant General, USA
Director, Joint Staff

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

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LIST OF EFFECTIVE PAGES

The following is a list of effective pages for. 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 4	O
i thru vi	O
A-1 thru A-10	O
B-1 thru B-4	O
C-1 thru C-12	O
D-1 thru D-2	O
GL-1 thru GL-20	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 JCIDS is one component of the capability-based planning (CBP) process. The CBP process encompasses the principal DOD decision support processes for transforming the military forces to support the national military strategy and the defense strategy. JCIDS plays a key role in identifying the capabilities required by the warfighters to support the National Defense Strategy and the National Military Strategy, but successful delivery of those capabilities relies on the JCIDS process working in concert with the other joint and DOD decision processes encapsulated in CBP. The procedures established in the JCIDS support the Chairman and JROC in advising the Secretary of Defense in identifying, assessing, and prioritizing joint military capability needs as specified in reference a.

    a. JCIDS identifies the joint force capabilities necessary to perform across the full range of military operations and challenges.

    b. JCIDS implements an integrated, collaborative process to guide development of new capabilities through changes in joint doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) and policy.

    c. JCIDS recognizes that there are many sources for capability needs including: Joint Urgent Operational Needs (JUONs) (reference i) for immediate needs, combatant commander's integrated priority lists (IPL), lessons learned, transitioning improvised explosive device (IED) initiatives (reference p), etc. Once these sources have been reviewed and approved by the JROC, they will enter the JCIDS and acquisition processes at Milestone B or C.

    d. The JROC is continuing to develop a construct to identify and prioritize joint warfighting capabilities. The JROC has approved a list of most pressing military issues (MPMI) that will be used to provide the JROC's priority guidance on solving select combatant command and Department issues. The MPMI is intended to be used as a focusing construct for those issues that come before the JROC.

2. JCIDS Methodology. JCIDS implements a capabilities-based approach that better leverages the expertise of all government agencies 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 joint DOTMLPF and policy approaches (materiel and non-materiel) to resolve those gaps.

    a. <u>Implementation</u>. JCIDS implements:

        (1) A methodology using joint concepts that will identify and describe shortcomings and redundancies in warfighting capabilities; identify the timeframe in which the shortfall or redundancy exists; describe effective solutions; identify potential approach(es) to resolve those shortcomings; and provide a foundation for further development and enhancements of integrated architectures.

        (2) A broad review of capability proposals/documents developed throughout the Department of Defense, focusing on the contributions made to the realization of the Joint Operations Concepts (JOpsC).

        (3) Linkage to the acquisition strategy and process by engaging the provider early, as capabilities proposals/documents are developed. Additionally, JCIDS fully complements the evolutionary acquisition process and leverages the use of capability roadmaps and integrated architectures as described in references e and f.

        (4) Prioritization of joint warfighting capability gaps and evaluation of operational risk based on the JOpsC to help focus the efforts of materiel and non-materiel developers, including bringing together different sponsors to jointly work toward a solution. These prioritized joint warfighting capabilities will also inform science and technology planning, capability roadmaps, and other acquisition decision processes.

        (5) Better definition of the relationship and integration between materiel considerations and non-materiel, or DOTMLPF and policy, resulting from the development, fielding and sustainment of a new capability, whether it is an individual system, a family of systems (FoS), or a system of systems (SoS). Additionally, the JCIDS process directly addresses joint non-materiel changes through the joint DOTMLPF change recommendation (DCR) process.

        (6) Incorporation of joint DCRs. The joint DCR defines the implementation of recommendations to change joint DOTMLPF and policy from USJFCOM or other sponsors of joint experimentation (reference q), joint testing, and evaluation (reference r) activities.

        (7) Coordination with other US government departmental or agency staffs.

    b. <u>Top Down Capabilities Identification Methodology</u>. The JOpsC are developed from top-level strategic guidance, providing a top-down baseline for identifying future capabilities (reference q). New capability requirements,

materiel or non-materiel, must relate directly to capabilities identified through the JOpsC. Therefore, the JOpsC are not intended to provide immediate solutions but proposed solutions that can afford careful examination over a more extended period of time. CONOPs may indicate short-term capability needs. CONOPs allow the joint community to adjust or divest current capabilities by providing the operational context needed to justify or modify current programs. The process flows from national level and strategic guidance through the concepts is shown in Figure A-1. As they are developed, the JOpsC, and if necessary Service concepts, will provide the conceptual basis for CBAs to answer these questions by identifying capabilities, gaps, and redundancies as well as potential non-materiel and materiel approaches to addressing the issues. A CBA may also be based on a combatant command, Service, or Defense agency CONOPs. The CBA process is described in reference c. Due to the wide variance in the scope of capabilities covered by the JCIDS process, the breadth and depth of the CBA must be tailored to suit the issue.
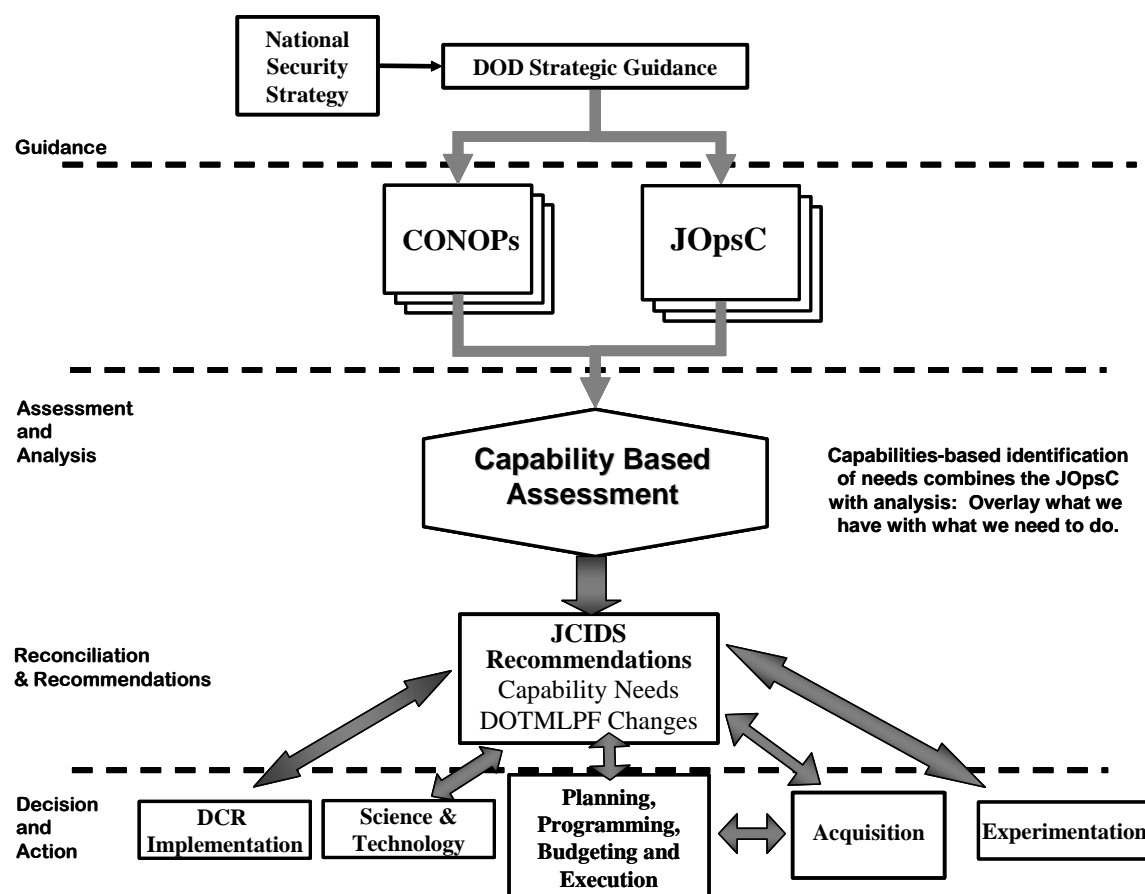

Figure A-1. Top Down Capability Need Identification Process

c. Experimentation and Science and Technology

(1) Experimentation. Experimentation may be part of the CBA process. The results of experimentation can help inform the CBA. Conversely, the

requirements for experimentation may be driven by the unknowns identified in the process of performing the CBA. Joint experimentation explores concepts to identify joint and component DOTMLPF change recommendations and capabilities gaps (reference q). 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 to indicate achievement of desired operational capabilities.

(2) Science and Technology. The prioritized joint warfighting capabilities identified 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 Joint Warfighting Science and Technology Plan (JWSTP). Joint Capability Technology Demonstrations (JCTDs), Advanced Concept Technology Demonstrations (ACTDs), and qualified prototype projects are important mechanisms in this process because they are used to assess the military utility of new capabilities, accelerate maturation of advanced technologies, and provide insight into non-materiel implications. They are on a scale large enough to demonstrate operational utility and end-to-end system integrity. The JROC reviews and validates joint mission needs cited as the foundation of JCTDs/ACTDs. Follow-on JCIDS action is taken as appropriate.

d. Functional Capabilities Boards (FCBs). Throughout the JCIDS analysis process, the FCBs will provide oversight and assessment as appropriate to ensure the analysis takes into account joint capabilities, concerns, and approaches to solutions (reference s). The FCBs are also responsible for assessing capabilities, priorities, and tradeoffs across the range of functional areas using the JCAs as an organizing construct. The FCBs provide recommendations to the JROC. Each FCB will be supported by one or more O-6-led FCB working groups.

e. Sponsor. Throughout the JCIDS process, reference is made to the sponsor. The identity and responsibilities of the sponsor will change throughout the JCIDS process. Additional definition of the sponsor's role is provided in Enclosure C of this publication.

f. Identifying Capabilities. In a capabilities-based approach, it is important to establish a common understanding of how a capability is identified and expressed in the ICD. A capability is the ability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks. The top-down capabilities identification methodology provides a method to identify gaps in the ability of the combatant command to execute assigned missions and assess associated risk(s). This methodology also establishes the linkage between the characteristics of the

future joint force identified in the Capstone Concept for Joint Operations (CCJO) and individual capabilities.

g. Interagency Capabilities. There will be capabilities that will have applicability across the Department of Defense and certain non-DOD agencies and departments, to include the Department of State, Department of Homeland Security, and others. Conversely, there will be capabilities developed by other government departments and agencies that may fill a DOD capability gap. The lead FCB is responsible to coordinate these linkages to minimize inefficiency and redundancy in capability development.

h. National Intelligence Capabilities. Intelligence capabilities developed by the Intelligence Community provide resources 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 National Intelligence (DNI) Mission Requirements Board (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. (This figure does not reflect the modified processes used for space- and NRO-related programs; see references f and t.) The figure illustrates the process flowing through and into defense and information technology acquisition boards in accordance with references e and f. The component MDAs use similar practices. The JCIDS process is closely linked to the acquisition process, described in references d, e, and f.
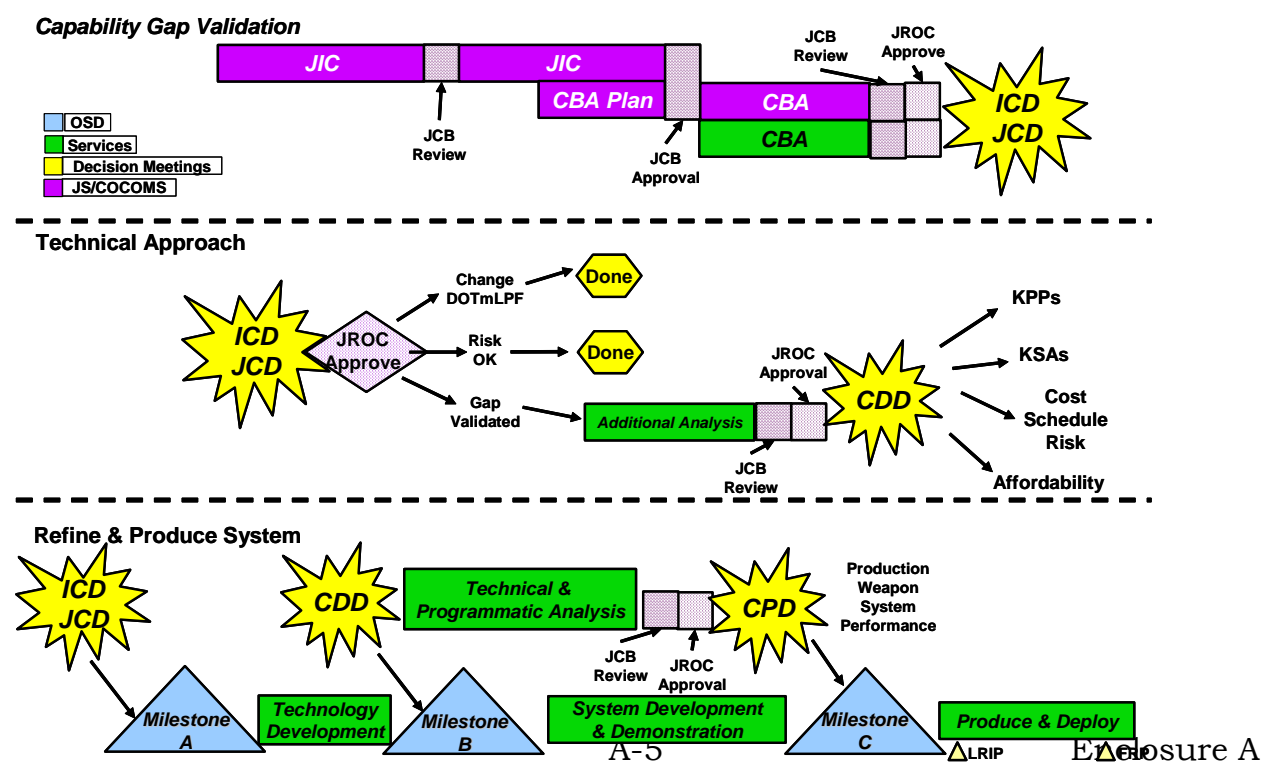
Enclosure A

Figure A-2. JCIDS Process and Acquisition Decisions

a. JCIDS documents (JCD, ICD, CDD, CPD, and joint DCR) support the implementation of non-materiel solutions and the development and production of materiel solutions. Key components of the CDD and CPD are the integrated architecture products that ensure the Department of Defense understands the linkages between capabilities and systems and can make appropriate acquisition decisions; and the performance attributes, including KPPs and key system attributes (KSAs), that define the most critical elements of performance for the systems under development.

4. <u>JCIDS Documentation</u>. The documentation developed during the JCIDS process provides the formal communication of capability gaps 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 the DOD for all acquisition programs regardless of acquisition category (ACAT).

a. JCIDS Document Relationships. Figure A-3 illustrates some of the more common relationships between JCIDS documents.
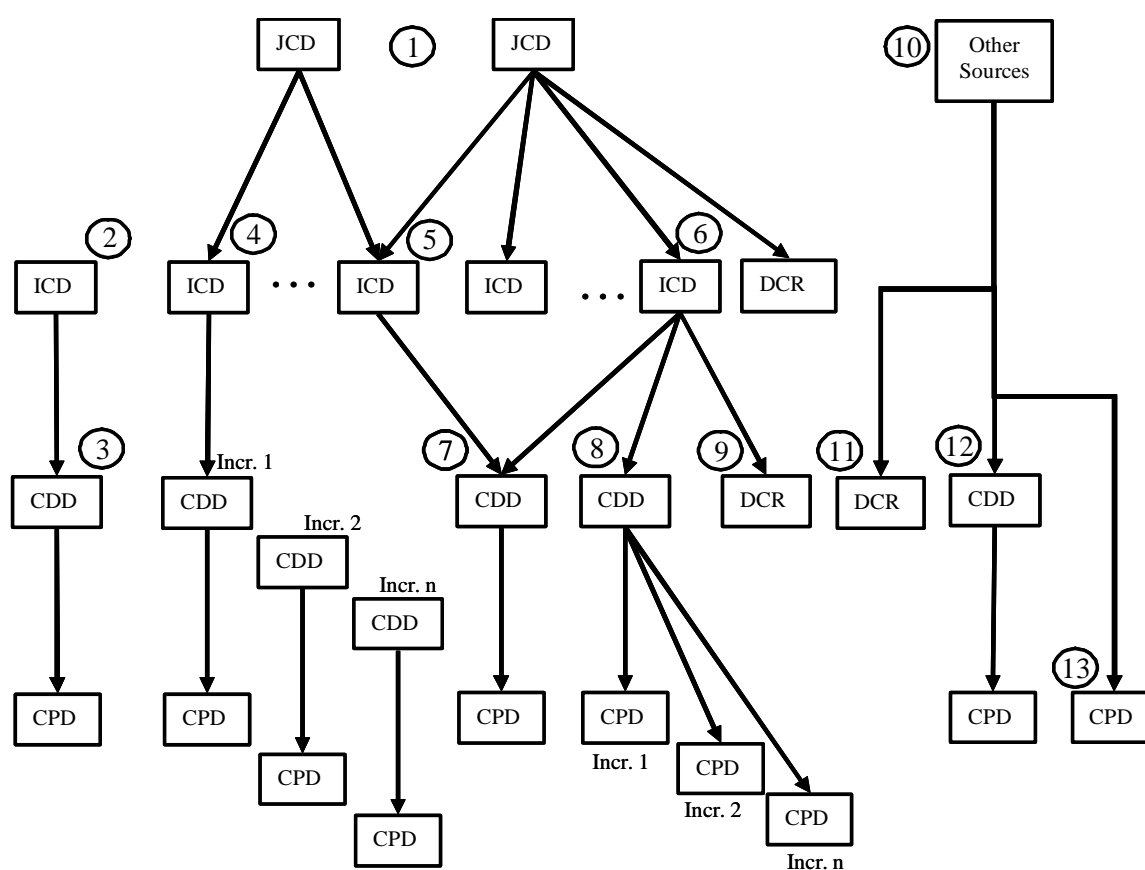
Figure A-3: JCIDS Document Relationships

(1) A JCD can be the source for one or more ICDs or DCRs. Each ICD or DCR will be based on an analysis of one or more of the capability gaps described in the JCD.

(2) The sponsor may develop an ICD without being directly related to a JCD. In these cases, the sponsor will base the CBA upon sponsor developed or existing joint or Service concepts or CONOPs. The sponsor will perform the requisite JCIDS analysis and submit the ICD for approval.

(3) An ICD may be the source for a single CDD with a resultant CPD.

(4) An ICD may be the source for a system or a SoS that will require incremental development under an evolutionary acquisition strategy. This requires a CDD and a CPD for each increment of the system or SoS.

(5) Two or more JCDs may provide the source material for one ICD. For example, a battlespace awareness capability may apply to the JCD for close air support and for joint forcible entry operations.

(6) An ICD may be the source for multiple CDDs where an SoS or FoS is required to deliver the capability.

(a) For an SoS example, the ICD for a capability for precision strike could result in a CDD for the aircraft, separate from the CDD for the munitions.

(b) For an FoS example, the Army develops an ICD for a capability to provide rapid transport of passengers or cargo, which results in a CDD for an Army fixed-wing solution. The Marine Corps may use that same ICD as the basis for developing a rotary-wing solution CDD.

(7) Two or more ICDs may be the source for a single CDD. For example, an ICD for long-range heavy lift transport and an ICD for air-to-air refueling may be combined to justify a single aircraft.

(8) A CDD may be used for two or more CPDs where incremental development under an evolutionary acquisition strategy is used.

(9) A joint DCR may be developed based upon the analysis in an ICD. For example, an ICD may identify several capability gaps. The analysis for those gaps indicates that one or more may be partially or wholly satisfied through a non-materiel change. This becomes the basis for the joint DCR.

(10) Other sources may be used to justify entering the JCIDS process without a JCD or ICD. These sources include combatant commander IPL, joint

and Service lessons learned, joint assessments (e.g., War on Terrorism), JUONs, Service urgent needs, IED defeat initiatives, JCTDs/ACTDs, qualified prototype projects, and quick reaction technology projects. Once the JROC has validated the gap identified in the source, the sponsor can initiate development of a CDD or CPD as appropriate.

(11) A joint DCR may be developed directly from many sources, including the result of an experiment, lessons learned, or other sources.

(12) A CDD may be based on these other sources if the capability solution requires additional development prior to fielding.

(13) A CPD may be based on these other sources if the capability solution does not require development effort (i.e., a non-developmental item) or is a commercial-off-the-shelf solution and is not being implemented as part of a broader DCR.

b. Performance Attributes and KPPs. The CDD and CPD state the operational and support-related/sustainment performance attributes of a system that provides the desired capability required by the warfighter -- attributes so significant that they must be verified by testing and evaluation. The documents shall designate as KSAs the specific attributes considered essential to the development of an effective military capability. Those KSAs that are critical to the delivery of an effective capability or make a significant contribution to the characteristics of the future joint force as defined in the CCJO shall be identified as KPPs. 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.

5. 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 as defined in reference c. The first step in the review process is the determination of the JPD and the designation of a lead FCB and supporting FCBs, as appropriate.

a. Based on the content of the submission and in his capacity of Gatekeeper, the Joint Staff Vice Director, J-8, will assign a JPD of "JROC Interest," "Joint Integration," "Joint Information," or "Independent" to the document. This designation determines the JCIDS validation and approval process and the potential requirement for certifications/endorsements.

(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; a potentially significant impact across Services; or interoperability in allied and coalition operations. JCDs and joint DCRs will be designated as JROC Interest. This designation may also apply to intelligence capabilities that support DOD and national intelligence requirements. These documents will receive all applicable certifications, including a weapon safety endorsement when appropriate, and be staffed through the JROC for validation and approval. An exception may be made for ACAT IA programs without significant impact on joint warfighting (i.e., business-oriented systems). These programs may be designated either Joint Integration, Joint Information, or Independent.

(2) The Joint Integration designation will apply to ACAT II and below programs where the capabilities and/or systems associated with the document do not significantly affect the joint force and an expanded review is not required. Staffing is required for applicable certifications (IT and national security systems (NSS) interoperability and supportability and/or intelligence and for a weapon safety endorsement when appropriate). Once the required certification(s)/weapon safety endorsement are completed, the document may be reviewed by the FCB. Joint Integration documents are validated and approved by the sponsoring component.

(3) The Joint Information designation applies to ACAT II and below programs that have interest or potential impact across Services or agencies but do not have significant impact on the joint force and do not reach the threshold for JROC Interest. No certifications or endorsements are required. Once designated Joint Information, staffing is required for informational purposes only and the FCB may review the document. Joint Information documents are validated and approved by the sponsoring component.

(4) The Independent designation will apply to ACAT II and below programs where the capabilities and/or systems associated with the document do not significantly affect the joint force, an expanded review is not required and no certifications or endorsements are required. Once designated Independent, the FCB may review the document. Independent documents are validated and approved by the sponsoring component.

  b. Details regarding the review and staffing process are provided in reference c. During this staffing process, all combatant commands, Services, Defense agencies, staff elements within the Office of the Secretary of Defense (OSD), and the Joint Staff are given the opportunity to provide comment and electronically concur/non-concur on each document.

6. Certifications and Endorsements. As part of the staffing process for each JCIDS document with JPDs of JROC Interest and Joint Integration,

appropriate certifications and endorsements will be processed. Reference c provides the definitions of the certifications and endorsements and the process for receiving them.

ENCLOSURE B

POLICY

1. 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 operations and challenges of the future. According to the CCJO, meeting these challenges involves a transformation to a knowledge-empowered, networked, interoperable, expeditionary, adaptable/tailorable, enduring/persistent, precise, fast, resilient, agile, and lethal joint force (reference g). To achieve substantive improvements in joint warfighting, interoperability, and sustained readiness in the battlespace of the future, coordination among DOD components, other federal departments and agencies, and multinational military partners is essential from the start of the JCIDS process. That process will establish the linkage between the joint concepts, Service concepts, the analysis needed to identify capabilities required to execute the concepts, and the systems delivering and sustaining those capabilities. Ensuring the combatant commanders have the ability to influence and engage in the JCIDS process is an important factor in achieving delivery of capabilities to address their needs. The combatant commands are encouraged to engage with the FCBs, Services, and agencies during the up-front assessment process. They are also invited to be an active part of the formal JROC, Joint Capabilities Board (JCB), and FCB processes.

2. To accomplish this transformation, the Department of Defense is implementing processes that assess existing and proposed capabilities in light of their contribution to future joint, allied, and coalition operations. The process must produce capability proposals/documents that consider and integrate the full range of joint DOTMLPF and policy solutions in order to advance joint warfighting in integrated operations in a unilateral and multinational context. DOTMLPF includes analysis of the entire life cycle, including the sustainment; environment, safety, and occupational health (ESOH); and all human systems integration (HSI) domains.

3. New solution sets must be crafted to deliver technologically sound, safe, testable, sustainable, and affordable increments of militarily useful capability that consider all elements of performance critical to future operations. JCIDS implements the evolutionary acquisition approach to capability development (reference e and h). There are two approaches for evolutionary acquisition: spiral and incremental development. All capabilities shall be defined, developed, tested and evaluated, procured, and sustained with consideration given to leveraging the unique capabilities of other DOD components, international systems from allies and cooperative opportunities, and with consideration of applicable US-ratified materiel international standardization

agreements. Potential solutions may include an FoS that takes different approaches to filling the capability gap, each addressing operational considerations in a different way. Alternatively, the solution may require an SoS approach to fill a capability gap. The FoS and SoS materiel solutions may also require systems delivered by multiple sponsors and materiel developers. The process to identify capability gaps and potential materiel and non-materiel solutions must be supported by a robust analytical process that objectively considers a range of operating, maintenance, sustainment, and acquisition approaches and incorporates innovative practices -- including best commercial practices, HSI, systems engineering (including safety and software engineering), collaborative environments, modeling and simulation, and electronic business solutions. It is expected any resultant materiel solution will be verified through testing conducted in the expected joint operational environment to demonstrate joint interoperability and, when appropriate, net-readiness.

4. This instruction uses DOD 5000 series terminology for acquisition phases; refer to National Security Space Acquisition Policy (NSSAP) 03-01 for definition of the acquisition phases for space programs, and NRO Directive 7 for guidance on the acquisition of NRO systems. Document formats and processes in reference c are mandatory for all DOD capabilities documents for ACAT programs. 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 IT systems, shipbuilding, and national security space systems. Requests for exceptions to this policy must be directed to the Joint Staff Director, J-8 (DJ-8).

5. The JCIDS process is a deliberate process designed for addressing future needs. Fielding capabilities to address immediate needs in the year of execution is done through the JUON process (reference i). Sponsor and combatant command compliance with the JCIDS process is not required to support fielding an immediate solution to a warfighter's urgent operational needs. Urgent needs will be worked through the Joint Rapid Acquisition Cell (JRAC) and/or the appropriate combatant command, Service, or agency process. However, complying with the JCIDS process is required for the long-term solution, sustainment activities, or to transition the solution into a program of record. Fielding of immediate needs is not intended to create placeholders for future funding or as a means to bypass the normal capabilities and acquisition processes in references d and e.

6. The JROC will validate the needed capability and approve all JROC Interest documents. The JCB may validate all JROC Interest documents where the potential or assigned ACAT is II. The lead FCB may validate all JROC Interest documents where the potential or assigned ACAT is III or below. All approvals will be documented in a formal JROC Memorandum signed by the Chairman of the JROC.

7. JCTDs, ACTDs, and qualified prototype projects will comply with the JCIDS process as they transition into the acquisition process.

8. The Knowledge Management/Decision Support (KM/DS) Tool is the Joint Staff automated tool for processing, coordination, and repository functions for JCIDS documents. The KM/DS Tool is located on the SIPRNET Web site at https://jrockmds1.js.smil.mil/guestjrcz/gbase.guesthome.

9. Documents that were approved under the previous versions of this instruction remain valid, except as detailed below:

   a. JROC-approved mission-area ICDs can be used as the baseline for follow-on CDDs. No new mission area ICDs will be accepted for approval. At the next review or update of approved mission-area ICDs, the appropriate FCB will provide advice and assistance to the document sponsor on converting to a JCD, ICD, or CDD as appropriate. All mission-area ICDs must be converted or they will be rescinded by June 2008.

   b. No new operational requirements documents (ORDs) will be accepted. ORD updates and annexes, CDDs, and CPDs developed in accordance with this instruction will be accepted to support capability development. ORD updates and annexes will comply with the format instructions in CJCSI 3170.01B and incorporate the mandated KPPs to include: net-ready, force protection, survivability, and materiel availability. A validated and approved ORD developed under a previous version of this instruction can be used for capability development (between Milestone B and C), but it may only be used to support a Milestone B or C decision in lieu of a CDD or CPD with approval from the Joint Staff/J-8.

   c. Draft JCIDS documents that entered into coordination prior to approval of this instruction are not required to change their format to comply with this instruction and accompanying manual.

10. IT systems with a developmental cost exceeding $15 million remain subject to this document. The spiral development approach for IT systems requires a variation to the application of the JCIDS documentation. A JCD or ICD will be required for initiation of any new IT capability development. The CDD will be developed describing the objective of up to 5 years of fielding the software. The CDD will be validated and approved once for all of the software fieldings over that time. A CPD will only be required if the IT system will be going through a formal operational test acceptance and a Milestone C decision (typically a major automated information system (MAIS) program). Further guidance will be provided in reference c.

11. For sustaining existing capabilities, a new ICD, CDD, or CPD is not required to retain or restore capabilities of fielded systems that have an approved ORD or JCIDS document. For example, subsystems that have approved performance threshold/objective parameters but are no longer able to meet those parameters can be updated or replaced to meet threshold/objective values under the authority of the approved JCIDS document.

12. For planned upgrades to an operational ACAT II or below system (previously called pre-planned product improvements), technology refresh, or recapitalization of existing capabilities, a new or updated CDD is required if the change expands the capabilities beyond the objective values of the previously approved system performance attributes. If the change improves the performance of the system but the performance remains between the threshold and objective values, a new or updated JCIDS document is not required. If the performance attribute has no established threshold and objective, the need for a new or updated CDD will be determined by the sponsoring component. For upgrades, technology refresh, or recapitalization of operational ACAT I systems, the requirement for a new or updated CDD will be determined by the Joint Staff/J-8 and the lead FCB.

13. When a capability is being completely delivered through a commercial-off-the-shelf solution with no development or significant integration required or by a non-developmental item, a CDD is not required unless directed by the MDA. If there is no ICD, the development of the CPD should be supported by a JUON, lessons learned, JCTD/ACTD, etc., that defines the capability and has been previously validated by the JROC.

14.   JCIDS documents in the staffing/approval process prior to the implementation of this instruction are not required to implement the new KPP requirements unless directed by the JROC.

ENCLOSURE C

RESPONSIBILITIES

1. Joint Requirements Oversight Council (JROC). Title 10 responsibilities of the JROC are identified in reference a, and the JROC processes are delineated in reference u.

    a. The JROC reviews programs designated as JROC Interest and supports the acquisition review process. The JROC may review JCIDS documents or any other issues that 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), ASD(NII)/DOD Chief Information Officer (CIO), Under Secretary of the Air Force (as DOD Executive Agent for Space), or the DNI MRB.

    b. The JROC will manage FCBs in accordance with reference s.

    c. For JROC Interest documents, the JROC will validate the KPPs and approve the documents based on recommendations from the lead and supporting FCBs.

    d. The JROC ensures the joint DOTMLPF and/or policy recommendations resulting from joint concept development and experimentation are integrated within the JCIDS process.

2. Joint Capabilities Board (JCB). The JCB processes and overall responsibilities are delineated in reference u.

    a. For JROC Interest documents that are ACAT I, the JCB will assess the documents based on recommendations from the lead and supporting FCBs and forward them to the JROC for validation and approval.

    b. For JROC Interest documents that are ACAT II, the JCB will validate the KPPs and approve the documents based on recommendations from the lead and supporting FCBs. Unresolved issues will be referred to the JROC for decision.

3. <u>Functional Capabilities Boards (FCB)</u>. Each FCB is responsible for all aspects, materiel and non-materiel, of its assigned functional area(s). Each FCB will seek to ensure that the joint force is best served throughout the JCIDS and acquisition process. JCIDS-specific FCB responsibilities are identified in reference s and include:

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

b. For JROC Interest documents that are ACAT I and II, the FCB will assess the documents and formulate a recommendation before forwarding them to the JCB/JROC for validation and approval. The lead FCB will coordinate with the supporting FCB(s) to ensure all aspects of a JCIDS document are evaluated. Where the Gatekeeper has identified a supporting FCB to provide enhanced support, the supporting FCB will provide an independent assessment and recommendation to the JCB/JROC.

c. For JROC Interest documents that are ACAT III and below, the FCB will validate the KPPs and approve the documents. Unresolved issues will be referred to the JCB/JROC for decision.

d. The FCB(s) will participate in cross-FCB integration meetings to ensure cross-functional integration of capabilities, prioritization of capability gaps, and excesses across the FCB portfolios to identify potential tradeoffs between capability areas, to evaluate the effectiveness of and potential improvements to the FCB process, and to provide recommendations to the JROC.

e. Assist in the adjudication of comments written during the JCIDS staffing process. If critical comments cannot be adjudicated during staffing, the FCB will make a recommendation to the JCB/JROC on the resolution of the comments.

f. FCBs will evaluate the KPPs submitted by the sponsor and identify other potential KPPs that warrant consideration by the JROC. The lead FCB will coordinate across supporting FCBs on the selection and validation of KPPs.

g. Lead a capabilities-based assessment on the JOpsC, as assigned by the JROC, leveraging the expertise of the Services and combatant commands. Develop the appropriate JCD as a result of the assessment. Complete the CBA if directed by the JROC.

h. Ensure that Director, Program Analysis and Evaluation (DPA&E), USD(AT&L) and ASD(NII)/DOD CIO have the opportunity to participate in or review all FCB activities. When the FCB is formulating a recommendation that may impact directly upon an MDA or other principal staff assistant, that office

will be invited to co-chair the FCB. DPA&E, USD(AT&L), and ASD(NII)/DOD CIO should be engaged early to ensure that the CBA adequately addresses a sufficient range of materiel approaches.

i. Invite the MRB staff to send a representative to attend or co-chair the FCB meeting when proposals/documents potentially impacting national intelligence capabilities come to the FCB for validation or approval.

j. 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 OSD.

k. Ensure that overarching joint DCRs are consistent with the JOpsC, and support joint warfighting capability needs.

l. Evaluate the assigned JPD of all initiatives and make a recommendation to the Gatekeeper to change the JPD as required. Recommendations to change the JPD should be made as quickly as possible prior to the completion of staffing to prevent unnecessary delays.

m. Ensure that appropriate certifications and endorsements have been granted.

n. For each Tier 1 JCA the assigned lead FCB will: maintain and refine individual Tier 1 JCA lexicon and develop and refine subordinate JCA taxonomy with JCA stakeholders; recommend changes to the JCA coordinator; and propose matured JCA lexicon for inclusion into doctrine.

4. <u>FCB Working Groups</u>. The FCB working groups will operate in accordance with reference s. 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 synchronization of documents 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. The lead FCB working group will analyze JCIDS documents and coordinate with supporting FCB working groups to ensure all joint and coalition warfighting aspects have been considered in the analysis. Provide context and a summary of the FCB working group's independent assessment

regarding JCIDS documents to the FCB when considering capabilities documents.

d. FCB working groups will evaluate the KPPs submitted by the sponsor and identify other potential KPPs that warrant consideration by the JROC. The lead FCB will coordinate across supporting FCBs on the selection and validation of KPPs.

e. Supporting FCB working groups will coordinate with and support the lead FCB working group analysis of JCIDS documents and will provide supporting context information and a recommendation to the lead FCB. As directed by the Gatekeeper, the supporting FCB may be required to brief their recommendations to the JCB/JROC.

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

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

a. Lead the JCIDS CBA required when developing the ICD and associated integrated architectures, while engaging and collaborating with appropriate organizations. The sponsor should work closely with the appropriate FCBs during the analysis process to ensure the analysis is truly joint.

b. Perform CBAs and develop ICDs as directed by the JROC for capability gaps identified in JCDs.

c. Provide support to combatant commands, combat support agencies (CSA), and FCBs in developing JCDs.

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

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

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

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

h. Present briefings to decision bodies, as required.

i. Validate Joint Integration documents after receiving required certifications and endorsements and validate all documents designated Joint Information or Independent.

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

k. Develop a CDD, CPD, or joint DCR, as appropriate, to support the acquisition or fielding of a capability demonstrated through a JCTD/ACTD, qualified prototype project, or quick reaction technology project.

l. When the sponsor disagrees with the assigned JPD, appeal to the FCB or the Gatekeeper by providing a memorandum with justification for changing the JPD.

6. <u>Joint Staff and DIA</u>. The Joint Staff and DIA provide review, coordination, and certification/endorsement 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, and safe weapons endorsement. Certification/ endorsement process details are provided in reference c.

a. <u>Joint Staff Director, J-1</u>. Joint Staff/J-1 is the office of primary responsibility for joint manpower and personnel reviews. In accordance with references v and w, Joint Staff/J-1 will review all joint manpower and personnel requirements and issues identified in joint DCRs. It will review JCIDS documents for adequacy of joint manpower and personnel planning.

b. <u>Joint Staff Director, J-2, and Director, DIA</u>. Joint Staff/J-2 will review and conduct intelligence certification in accordance with reference x. DIA will also perform a threat validation. Additionally, Joint Staff/J-2 will conduct intelligence certification of requirements, deficiencies, and solutions documented in the information support plans in accordance with references x and y.

c. <u>Joint Staff Director, J-3</u>. Joint Staff/J-3 is the office of primary responsibility for the current Global Command and Control (GCC) family of systems, future command and control capabilities, and the common operational picture in accordance with reference z. Joint Staff/J-3 will review all GCCS functional capabilities identified in CDDs and CPDs as well as non-materiel changes proposed in joint DCRs. It will review and comment on all JCIDS documents designated as JROC Interest or Joint Integration for operational suitability, sufficiency, and supportability to the warfighter.

d. Joint Staff Director, J-4

(1) Joint Staff/J-4 is responsible for joint facilities reviews. It will review JCIDS documents for adequacy of facility planning and design criteria and ESOH considerations regarding basing and operation. Additionally, when documents include materiel solutions, Joint Staff/J-4 will review logistics and supportability issues, to include ensuring the system's initial and/or temporary facility requirements are within existing engineer force capabilities.

(2) Joint Staff/J-4 will review and comment on the sustainment (materiel availability) KPP and its supporting KSAs (materiel reliability and ownership cost) for all JROC Interest CDDs and CPDs.

(3) Joint Staff/J-4 will review and comment on the energy efficiency analysis and recommendations (e.g., selectively apply an energy efficiency KPP or not) for all JROC Interest CDDs and CPDs.

e. Joint Staff Director, J-5. The Joint Staff/J-5 will act as CJCS Executive Agent for implementing JROC decisions regarding multinational and interagency requirements and joint DCRs with multinational or interagency impacts. The Joint Staff/J-5 will provide oversight on alignment between JCIDS proposals/documents, strategy, and CJCS priorities.

f. Joint Staff Director, J-6

(1) Joint Staff/J-6 will perform IT and NSS interoperability and supportability certifications on all CDDs and CPDs designated as JROC Interest or Joint Integration in accordance with references y, aa, and bb. This certification will include evaluation of compliance with the DOD Net-Centric Data Strategy (reference cc) through collaboration with the communities of interest that apply to these capabilities. Additionally, Joint Staff/J-6 will be the lead for validating the net-ready KPP (NR-KPP) and will resolve all issues associated with the NR-KPP (reference bb).

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

g. Joint Staff Director, J-7

(1) As the CJCS lead for the JOpsC, Joint Staff/J-7 will oversee the writing, development, and revision of the JOpsC (reference q). It will review recommendations resulting from assessment and experimentation that will affect DOTMLPF and/or policy and forward those recommendations to the JROC through the appropriate FCB.

(2) Joint Doctrine, Training, and Leadership/Education Review. Joint Staff/J-7 will work with combatant commanders, Services, Joint Staff, OSD,

and Defense agencies to ensure each joint DCR adequately addresses potential impacts on joint, multinational and interagency warfighting, and other operations with respect to joint doctrine (reference dd), joint training (references ee and/or ff), and joint leadership and education (reference gg) resulting from implementation of the proposed concept or employment of the system.

(3) Joint Staff/J-7 will review and comment on the recommendations pertaining to the inclusion of the selectively applied systems training KPP for all JROC Interest CDDs, CPDs, and associated analysis of alternatives (AoA).

(4) As the JCA Coordinator, Joint Staff/J-7 will facilitate and oversee future JCA development, host planner-level JCA refinement meetings, and F/GO level reviews and champion JCA lexicon implementation across DOD processes.

h. <u>Joint Staff Director, J-8</u>. 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 u. Other responsibilities within the directorate are as follows (specific divisions responsible are in parenthesis):

(1) Serve as the "Gatekeeper" of the JCIDS process (Joint Staff Vice Director, J-8). With the assistance of J-6, J-7, the FCB working group leads, and USJFCOM, the Vice Director will assign a JPD and evaluate all JCIDS documents.

(a) The Gatekeeper will chair meetings of the General/Flag Officer chairs of the FCBs to ensure cross-functional area integration, prioritization of capabilities across the FCB portfolios, and identification of FCB best practices for improvement of the FCB processes.

(b) The Gatekeeper will make the initial determination on the following:

<u>1</u>. JPD assignment and who has validation and/or approval authority.

<u>2</u>. The lead and supporting FCBs.

<u>3</u>. Assigned J-8 Capabilities and Acquisition Division lead.

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

(3) 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.

(4) Evaluate the recommendation of the lead and supporting FCBs to change the FCB assignments and, if necessary, make appropriate changes.

(5) Review all joint DCRs and assess whether existing joint organizations effectively support integration and operational employment of the proposed system or concept (Joint Staff/J-8 Forces Division).

(6) Review all joint DCRs for proposed materiel solutions and staff materiel issues in accordance with the applicable sections of reference c (Joint Staff/J-8 Capabilities and Acquisition Division).

(7) Coordinate all joint DCRs entering JCIDS with the following responsibilities (Joint Staff/J-8 Joint Capabilities Division):

(a) Link JROC and JCIDS process to joint transformation efforts in current DOTMLPF and policy.

(b) Facilitate joint DCR staffing and review from entry into KM/DS through final JROC approval.

(c) Coordinate the objective assessment of joint DCRs by functional process owners (FPOs) in each consideration of DOTMLPF and policy in accordance with reference c.

(d) Synchronize and track implementation of JROC-endorsed joint DCRs via the Joint Transformation Integration System (JTIS) database.

(e) Facilitate preparation of JROCMs from JROC-approved joint DCRs.

(f) Coordinate quarterly DOTMLPF action review meetings with the JCB to review status of outstanding joint DCRs.

(g) Attend JROC, JCB, FCB, and FCB working group meetings when joint DCRs are being briefed or discussed to assist in facilitating the recommendations for JROC approval.

(8) Assess the readiness and responsiveness of CSAs to support operational forces (Joint Staff/J-8 Support Agency Review and Assessment Office).

(a) Review all CSA-submitted JCIDS documents to assess impact on identified CSA warfighting support capability gaps.

(b) Recommend CSA JCIDS actions to correct identified warfighting support capability gaps.

(c) Submit CSA JCIDS action recommendations to the Gatekeeper for dissemination to the appropriate FCB and action in accordance with reference hh.

(9) Weapons or munitions related JCIDS documents will be designated JROC Interest or Joint Integration. The J-8/Deputy Director for Force Protection (DDFP) shall provide an endorsement to the JROC stating whether the weapon capabilities, performance parameters, and attributes are adequately prescribed in the JCIDS document for safe handling, storage, transportation, or use in joint operating environments. The endorsement will be coordinated through the force protection FCB prior to signature. This endorsement may identify potential operational limitations due to potential hazards when the weapon is handled, stored, transported, or used in joint operating environments.

(a) Establish the Joint Weapon Safety Technical Advisory Panel (JWSTAP) per reference k. The JWSTAP is to advise the DDFP on weapon safety issues pursuant to advising the JROC during the review and deliberation of all weapon and munition capability JCIDS documents. The JWSTAP reviews and provides recommended revisions to the capability documents. The JWSTAP review is focused on the capability attributes and metrics of a given weapon to identify potential safety issues resulting from interaction between the proposed weapon and other capabilities existing within the same joint operating environment.

1. The JWSTAP provides subject matter expertise review and comments to the DDFP regarding the safe employment, storage, and transport of munitions and weapons in joint operating environments. The JWSTAP will advise the DDFP on weapon capability documents requiring validation and approval within JCIDS. The JWSTAP review is focused on the capability attributes and metrics of a given weapon or munition to identify potential safety issues resulting from interaction between the proposed weapon and other capabilities existing within the same joint operating environment. Safety concerns identified by the JWSTAP are presented to the DDFP with recommended revisions to the capability document to reduce or eliminate the identified safety concern while maintaining the desired operational effectiveness of the weapon. The DDFP will forward the proposed recommendations to the FP FCB for review and endorsement. The FP FCB shall inform the capability sponsor of the concerns prior to completing joint staffing. The FP FCB will then forward their endorsement to the JROC, informing the JROC of any safe weapons capability restrictions/limitations.

2. Specifically, the JWSTAP shall:

a. Serve as a source of expert consultation for program sponsors and the DDFP regarding weapon safety aspects of joint operating environments. Participate, as requested, in the development and review of

draft JCIDS documents prior to formal submittal into the JCIDS process. Collaborate with program sponsors and the DDFP to develop possible solutions to issues.

b. Review each weapon JCIDS document to ensure weapon safety is addressed with respect to provisions for safe operation, handling, storage, and transport integration into the joint operating environments. Prepare a report for the DDFP documenting the results of the JWSTAP review of the JCIDS document containing the recommended revisions to address joint operating environments safety concerns.

(b) Safety concerns identified by the JWSTAP are presented to the DDFP with recommended revisions to the capability document to reduce or eliminate the identified safety concerns while maintaining the desired operational effectiveness of the munition. If the safety recommendations could affect operational effectiveness, the JWSTAP will also provide possible mitigation strategies to limit the impact on operational effectiveness.

(c) The DDFP will forward the proposed recommendations to the Force Protection FCB for review and subsequent endorsement to the JROC.

7. Services

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

b. The Services are responsible for developing Service-specific operational concepts and experimenting within core competencies, supporting joint concept development with Service experimentation, providing feedback from the field, supporting joint experimentation, joint testing and evaluation, and overseeing integration of validated joint DCRs.

8. Combatant Commands

a. The combatant commands have been assigned specific mission responsibilities in the Unified Command Plan (UCP). For those missions, they will comment on all capabilities documents that fall within their assigned missions and act as the advocate or advisor to the JROC as required. The combatant commands will be provided the opportunity to review and comment on all documents designated as JROC Interest before they are validated and approved. Combatant commands may review and comment on documents designated as Joint Integration during J-2 and J-6 certification processes and the J-8 safe weapons endorsement prior to sponsor validation and approval.

Combatant commands are also given the opportunity to review and comment on Joint Information documents as desired.

b. Combatant commands may conduct JCIDS analyses and submit a JCD that identifies capabilities needed and gaps or redundancies that exist (see reference c). The JROC will then task the appropriate sponsor(s) to perform the CBA and submit complete ICD(s) for approval. The combatant command may perform the CBA with its resources and submit the completed ICD for approval. The combatant command leverages the expertise of its components and may coordinate and receive assistance from a sponsor in this effort. 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. <u>US Joint Forces Command</u>

(1) CDRUSJFCOM is functionally responsible to the Chairman for leading joint concept development and experimentation (CDE) by integrating joint experimentation into the development of all joint concepts (reference q). As the DOD Executive Agent for joint warfighting experimentation, CDRUSJFCOM develops combined operational warfighting concepts and integrates multinational and interagency warfighting transformation efforts with joint CDE in coordination with other combatant commands. USJFCOM also coordinates the efforts of the Services, combatant commands, and Defense agencies to support joint interoperability and future joint warfighting capabilities and will coordinate with Joint Staff/J-7 and concept authors to translate actionable recommendations into JCDs and joint DCRs as appropriate. They will forward JCDs and joint DCRs to the JROC through the Joint Staff/J-8 for coordination, recommendation, and endorsement. USJFCOM will also review all JCDs and ICDs for potential areas for future joint experimentation efforts.

(2) CDRUSJFCOM will serve as the Chairman's advocate for joint warfighting interoperability and as the lead integrator for joint C2 capabilities. USJFCOM will provide the warfighter perspective during the development of joint concepts and integrated architectures to ensure that joint forces have interoperable systems. USJFCOM will support the JROC by:

(a) Leading the development of joint warfighting C2 capabilities, architectures, and operational concepts.

(b) Identifying, consolidating, prioritizing, and synchronizing materiel and non-materiel gaps and overlaps to joint C2 functional capabilities through the FCBs in the JCIDS process.

d. <u>US Special Operations Command (USSOCOM)</u>. 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, budget for Joint Integration, Joint Information, and Independent programs, and resource both special operations-specific materiel acquisition programs and joint DCRs. USSOCOM will coordinate on JROC Interest documents and may review Joint Integration, Joint Information, and Independent documents developed by other sponsors to identify opportunities for cross-component utilization and harmonization of capabilities. USSOCOM will forward all capabilities documents to the Gatekeeper for initial determination of JPD and potential review by an FCB. Capabilities documents assigned a JPD of Independent or Joint Information will be returned to USSOCOM for action. Joint Integration documents will be returned to USSOCOM for approval after receipt of the appropriate certifications or endorsements as required. JROC Interest capabilities documents will be forwarded for JROC validation and approval. In the event USSOCOM identifies joint DCRs that may benefit other DOD components, the joint DCR process provides a venue to submit proposals for JROC consideration. CDRUSSOCOM exercises responsibility to ensure the interoperability, supportability, sustainment, and combat readiness of special operations forces and equipment.

9. <u>Other DOD Components</u>

   a. 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, Joint Information, or Independent that may have broader applicability and therefore should change to JROC Interest designation.

   b. Defense agencies and field activities may develop their own JCIDS documents as a DOD component or be asked to manage the results of changes initiated by the combatant commands, Services, or Joint Staff.

ENCLOSURE D

REFERENCES

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

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

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

d. DODD 5000.1, 12 May 2003, "The Defense Acquisition System"

e. DODI 5000.2, 12 May 2003, "Operation of the Defense Acquisition System"

f. National Security Space Acquisition Policy 03-01, December 2004, "Guidance for DOD Space System Acquisition Process"

g. "Capstone Concept for Joint Operations," Secretary of Defense memorandum, August 2005

h. DODD 8000.1, 27 February 2002, "Management of DOD Information Resources and Information Technology"

i. CJCSI 3470.01 Series, "Rapid Validation and Resourcing of Joint Urgent Operational Needs (JUONS) in the Year of Execution"

j. JROCM 100-05, 16 May 2005, "Modifications to the Operation of the Joint Capabilities Integration and Development System (JCIDS)"

k. JROCM 102-05, 20 May 2005, "Safe Weapons in Joint Warfighting Environments"

l. JROCM 120-05, 13 June 2005, "Policy for Updating Capabilities Documents to Incorporate Force Protection and Survivability KPP(s)"

m. JROCM 062-06, 17 April 2006, "Modifications to the Operation of the Joint Capabilities Integration and Development System"

n. JROCM 161-06, 17 August 2006, "JROC Way Ahead: KPP Study Recommendations and Implementation"

o. JROCM 163-06, 17 August 2006, "Modifications to the Comment Resolution process of the Joint Capabilities Integration and Development System"

p. DODD 2000.19E, 14 February 2006, "Joint Improvised Explosive Device Defeat Organization (JIEDDO)"

q. CJCSI 3010.02 Series, "Joint Operations Concepts Development Process (JOPSC-DP)"

r. DODI 5010.41, 12 September 2005, "Joint Test and Evaluation (JT&E) Program"

s. CJCSI 3137.01 Series, "The Functional Capabilities Board Process"

t. NRO Directive 82-2b, 14 December 2004, "Acquisition Management"

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

v. CJCSI 1001.01 Series, "Joint Manpower and Personnel Program"

w. CJCSI 1301.01 Series, "Policies and Procedures to Assign Individuals to Meet Combatant Command Mission-Related Temporary Duty Requirements"

x. CJCSI 3312.01 Series, "Joint Military Intelligence Requirements Certification"

y. DODI 4630.8, 30 June 2004, "Procedures for Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)"

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

aa. DODD 4630.5, 5 May 2004, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)"

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

cc. DODD 8320.02, 2 December 2004, "Data Sharing in a Net-Centric Department of Defense"

dd. CJCSI 5120.02 Series, "Joint Doctrine Development System"

ee. CJCSI 3500.01 Series, "Joint Training Policy for the Armed Forces of the United States"

ff. CJCSI 3500.02 Series, "Joint Training Master Plan 2002 for the Armed Forces of the United States"

gg. CJCSI 1800.01 Series, "Officer Professional Military Education Policy"

hh. CJCSI 3460.01 Series, "Combat Support Agency Review Team Assessments"

GLOSSARY

PART I - ACRONYMS

ACAT	acquisition category
ACTD	Advanced Concept Technology Demonstration
AoA	analysis of alternatives
APB	acquisition program baseline
ASD(NII)	Assistant Secretary of Defense (Networks and Information Integration)
C2	command and control
CBA	capabilities-based assessment
CBP	capabilities-based planning
CCJO	Capstone Concept for Joint Operations
CDD	capability development document
CDE	concept development and experimentation
CDRUSJFCOM	Commander, US Joint Forces Command
CIO	Chief Information Officer
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
CONOPs	concept of operations
CPD	capability production document
CSA	combat support agency
DAR	doctrine, organization, training, materiel, leadership and education, personnel, and facilities action review
DCR	doctrine, organization, training, materiel, leadership and education, personnel, and facilities change recommendation
DDFP	Deputy Director for Force Protection
DJ-8	Joint Staff Director, J-8
DIA	Defense Intelligence Agency
DNI	Director of National Intelligence
DOD	Department of Defense
DODD	Department of Defense directive
DODI	Department of Defense instruction
DOTMLPF	doctrine, organization, training, materiel, leadership and education, personnel, and facilities
DPA&E	Director, Program Analysis and Evaluation

ESOH	environment, safety, and occupational health
FAA	functional area analysis
FCB	Functional Capabilities Board
FNA	functional needs analysis
FoS	family of systems
FPO	functional process owner
FSA	functional solution analysis
GCC	Global Command and Control
HSI	human systems integration
ICD	initial capabilities document
IED	improvised explosive device
IPL	integrated priority list
IT	information technology
J-8	Force Structure, Resources and Assessment Directorate, Joint Staff
JCA	joint capability area
JCB	Joint Capabilities Board
JCD	joint capabilities document
JCIDS	Joint Capabilities Integration and Development System
JCTD	Joint Capability Technology Demonstration
JIC	joint integrating concept
JIEDDO	Joint Improvised Explosive Device Defeat Organization
JOC	joint operating concept
JOpsC	Joint Operations Concepts
JPD	joint potential designator
JRAC	Joint Rapid Acquisition Cell
JROC	Joint Requirements Oversight Council
JROCM	Joint Requirements Oversight Council memorandum
JSCP	Joint Strategic Capabilities Plan
JTIS	Joint Transformation Integration System
JUON	joint urgent operational need
JWSTP	Joint Warfighting Science and Technology Plan
JWSTAP	Joint Weapon Safety Technical Advisory Panel
KM/DS	Knowledge Management/Decision Support
KPP	key performance parameter
KSA	key system attribute
MAIS	major automated information system
MDA	milestone decision authority

GL-2   Glossary

MPMI	most pressing military issues
MRB	Mission Requirements Board
NR-KPP	net-ready key performance parameter
NRO	National Reconnaissance Office
NSS	National Security Systems
NSSAP	National Security Space Acquisition Policy
ORD	operational requirements document
OSD	Office of the Secretary of Defense
PPBE	planning, programming, budgeting and execution
SIPRNET	SECRET Internet Protocol Router Network
SoS	system of systems
SWarF	Senior Warfighter Forum
UCP	Unified Command Plan
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
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 ACAT determines the level of review, validation authority, and applicable procedures. Reference e provides the specific definition for each ACAT.

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. The APB captures the user capability needs, including key performance parameters, which are copied verbatim from the capability development document.

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 performance, operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The AoA 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. The AoA is one of the key inputs to defining the system capabilities in the capability development document.

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 quantitative or qualitative characteristic of an element or its actions.

automated information system - A combination of computer hardware and computer software, data, and/or telecommunications that performs functions such as collecting, processing, storing, transmitting, and displaying information. Excluded are computer resources, both hardware and software, that are: physically part of, dedicated to, or essential in real time to the mission performance of weapons systems; used for weapon system specialized training, simulation, diagnostic test, and maintenance or calibration; or used for research and development of weapon systems.

capabilities-based assessment (CBA) – The CBA is the Joint Capabilities Integration and Development System analysis process that includes three phases: the functional area analysis (FAA), the functional needs analysis (FNA), and the functional solution analysis (FSA). The results of the CBA are used to develop a joint capabilities document (based on the FAA and FNA) or initial capabilities document (based on the full analysis).

capability - The ability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks. It is defined by an operational user and expressed in broad operational terms in the format of a joint or initial capabilities document or a joint doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) change recommendation. In the case of materiel proposals/documents, the definition will progressively evolve to DOTMLPF performance attributes identified in the capability development document and the capability production document.

capability based planning (CBP) – The process for planning under uncertainty to provide capabilities suitable for a wide range of modern-day challenges and circumstances while working within an economic framework that necessitates choice.

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. The CDD may define multiple increments if there is sufficient definition of the performance attributes (key performance parameters, key system attributes, and other attributes) to allow approval of multiple increments.

capability gaps - The inability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks. The gap may be the result of no existing capability, lack of proficiency or sufficiency in existing capability, or the need to recapitalize an existing capability.

capability need – A capability identified through the FAA, required to be able to perform a task within specified conditions to a required level of performance.

capability production document - A document that addresses the production elements specific to a single increment of an acquisition program.

Capstone Concept for Joint Operations (CCJO) - The CCJO is the overarching concept that guides the development of future joint force capabilities. It broadly describes how the joint force is expected to operate 10-20 years in the future in all domains across the range of military operations within a

multilateral environment and in collaboration with interagency and multinational partners. The CCJO describes the proposed end states derived from strategy as military problems and the characteristics of the future joint force (reference g).

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.

concept of operations (CONOPs) - A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations. The CONOPs frequently is embodied in campaign plans and operation plans; in the latter case, particularly when the plans cover a series of connected operations to be carried out simultaneously or in succession. CONOPs is designed to give an overall picture of the operation. It is included primarily for additional clarity of purpose. Also called a commander's concept.

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

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.

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.

endorsement – A statement of adequacy, and any limitations, provided by a responsible agency for a specific area of concern in support of the validation process.

environment - Air, water, land, living things, built infrastructure, cultural resources, and the interrelationships that exist among them.

environment, safety and occupational health (ESOH) management – Sustaining the readiness of the US Armed Forces by cost effectively managing all installation assets through promotion of safety, protection of human health, and protection and restoration of the environment.

evolutionary acquisition - The preferred DOD 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 of systems that provide similar capabilities through different approaches to achieve similar or complementary effects. For instance, the warfighter may need the capability to track moving targets. The FoS that provides this capability could include unmanned or manned aerial vehicles with appropriate sensors, a space-based sensor platform, or a special operations capability. Each can provide the ability to track moving targets but with differing characteristics of persistence, accuracy, timeliness, etc.

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 Joint Requirements Oversight Council.

Functional Capabilities Board - 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 (FCB) working group - The analytic support for the FCBs. They perform the review and assessment of Joint Capabilities Integration and Development System documents, work with the sponsors to resolve issues, and make recommendations to the FCB.

functional process owners (FPO) - Joint Staff directorates that have the responsibility for the joint doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF)-selected "joint processes," as shown in the table below.

Critical Consideration DOTMLPF FPO

Joint Doctrine	Joint Staff/J-7
Joint Organizations	Joint Staff/J-8 (J-1 and J-5 support)
Joint Training	Joint Staff/J-7
Joint Materiel	Joint Staff/J-8
Joint Leadership and Education	Joint Staff/J-7
Joint Personnel	Joint Staff/J-1
Joint Facilities	Joint Staff/J-4

Gatekeeper - That individual who makes the initial joint potential designation of Joint Capabilities Integration and Development System documents. This individual will also make a determination of the lead and supporting FCBs for capability documents. The Gatekeeper is supported in these functions by the Functional Capabilities Board working group leads and the Joint Staff/J-6. The Joint Staff Vice Director, J-8, serves as the Gatekeeper.

human systems integration – Defined in reference e, includes the integrated and comprehensive analysis, design and assessment of requirements, concepts and resources for system manpower, personnel, training, safety and occupational health, habitability, personnel survivability, and human factors engineering.

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. Spiral development is an instance of an incremental development strategy where the end state is unknown. Technology is developed to a desired maturity and injected into the delivery of an increment of capability.

information assurance - 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.

initial capabilities document (ICD) - Documents the requirement for a materiel or non-materiel approach, or an approach that is a combination of materiel and non-materiel, to satisfy specific capability gap(s). It defines the capability gap(s) in terms of the functional area, the relevant range of military operations, desired effects, time and doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) and policy implications and constraints. The ICD summarizes the results of the DOTMLPF and policy analysis and the DOTMLPF approaches (materiel and non-materiel) that may deliver the required capability. The outcome of an ICD could be one or more joint DCRs or capability development documents.

integrated architecture - An architecture consisting of multiple views or perspectives (operational view, systems view, and technical standards view) that facilitates integration and promotes interoperability across capabilities and among related integrated architectures.

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. Information technology and National Security Systems 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 capability area (JCA) - JCAs are collections of similar capabilities logically grouped to support strategic investment decision making, capability portfolio management, capability delegation, capability analysis (gap, excess, and major trades), and capabilities-based and operational planning. JCAs are intended to

provide a common capabilities language for use across many related DOD activities and processes and are an integral part of the evolving CBP process.

a. Tier 1 JCA. A Tier 1 JCA is a high-level capability category that facilitates capabilities-based planning, major trade analysis, and decision-making. Tier 1 JCAs are comprised of functional, operational, domain, and institutional based joint capabilities. All DOD capabilities can be mapped to a Tier 1 JCA.

b. Tier 2 JCA. A Tier 2 JCA is a comprehensive capability area logically placed within a Tier 1 JCA. Tier 2 JCAs are capability areas with sufficient detail to help identify operationally required military capabilities or to help identify joint force generation and management capabilities. A Tier 2 JCA scopes, bounds, clarifies, and better defines the intended capability area of its 'parent' Tier 1 JCA. Tier 2 JCAs are intended to reduce duplication between Tier 1 JCAs and are not Service, mission, or platform specific.

c. JCA Taxonomy. The structure or framework of joint capabilities, used in conjunction with the JCA Lexicon, to facilitate capabilities-based planning, analysis, and decision making.

d. JCA Lexicon. A collection of joint capability definitions that provide a common capabilities language for the Departement of Defense to facilitate capabilities-based planning, analysis, and decision making.

Joint Capabilities Board (JCB) - The JCB functions to assist the Joint Requirements Oversight Council (JROC) in carrying out its duties and responsibilities. The JCB reviews and, if appropriate, endorses all Joint Capabilities Integration and Development System and joint doctrine, organization, training, materiel, leadership and education, personnel, and facilities change recommendation documents prior to their submission to the JROC. The JCB is chaired by the Joint Staff Director of Force Structure, Resources, and Assessment (J-8). It is comprised of general and flag officer representatives of the Services.

Joint Capabilities Document (JCD) - The JCD identifies a set of capabilities that support a defined mission area utilizing associated Joint Operations Concepts (JOpsC), concept of operations (CONOPs), or Unified Command Plan or other assigned missions. The capabilities are identified by analyzing what is required across all functional areas to accomplish the mission. The gaps or redundancies are then identified by comparing the capability needs to the capabilities provided by existing or planned systems. The JCD will be used as a baseline for one or more functional solution analyses leading to the appropriate initial capabilities documents or doctrine, organization, training, materiel, leadership and education, personnel, and facilities change recommendation documents, but cannot be used for the development of

capability development or capability production documents. The JCD will be updated as changes are made to the supported JOpsC, CONOPs, or assigned missions.

<u>Joint Capability Technology Demonstration (JCTD)</u> - A demonstration of the military utility of a significant new technology and an assessment to clearly establish operational utility and system integrity.

<u>joint doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) change recommendation</u> – A recommendation for changes to existing joint resources when such changes are not associated with a new defense acquisition program.

a. joint doctrine – Fundamental principles that guide the employment of US military forces in coordinated action toward a common objective. Though neither policy nor strategy, joint doctrine serves to make US policy and strategy effective in the application of US military power. Joint doctrine is based on extant capabilities. Joint doctrine is authoritative guidance and will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. (CJCSI 5120.02)

b. joint organization - A [joint] unit or element with varied functions enabled by a structure through which individuals cooperate systematically to accomplish a common mission and directly provide or support [joint] warfighting capabilities. Subordinate units/elements coordinate with other units/elements and, as a whole, enable the higher-level [joint] unit/element to accomplish its mission. This includes the joint manpower (military, civilian, and contractor support) required to operate, sustain, and reconstitute joint warfighting capabilities.

c. joint training – Training, including mission rehearsals, of individuals, units, and staffs using joint doctrine or joint tactics, techniques, and procedures to prepare joint forces or joint staffs to respond to strategic, operational, or tactical requirements considered necessary by the combatant commanders to execute their assigned or anticipated missions.

d. joint materiel – All items (including ships, tanks, self-propelled weapons, aircraft, etc., and related spares, repair parts, and support equipment, but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support [joint] military activities without distinction as to its application for administrative or combat purposes.

e. joint leadership and education – Professional development of the joint commander is the product of a learning continuum that comprises training, experience, education, and self-improvement. The role of Professional Military Education and Joint Professional Military Education is to provide the education

needed to complement training, experience, and self-improvement to produce the most professionally competent individual possible.

   f. joint personnel – The personnel component primarily ensures that qualified personnel exist to support joint capabilities. This is accomplished through synchronized efforts of joint force commanders and Service components to optimize personnel support to the joint force to ensure success of ongoing peacetime, contingency, and wartime operations.

   g. joint facilities – Real property consisting of one or more of the following: a building, a structure, a utility system, pavement, and underlying land. Key facilities are selected command installations and industrial facilities of primary importance to the support of military operations or military production programs. A key facilities list is prepared under the policy direction of the Joint Chiefs of Staff.

joint experimentation - An iterative process for developing and assessing concept-based hypotheses to identify and recommend the best value-added solutions for changes in doctrine, organization, training, materiel, leadership and education, personnel, and facilities and policy required to achieve significant advances in future joint operational capabilities.

joint force - A general term applied to a force composed of significant elements, assigned or attached, of two or more Military Departments operating under a single joint force commander.

joint operating environment – The environment of land, sea, and/or airspace within which a joint force commander employs capabilities to execute assigned missions.

Joint Operations Concepts (JOpsC) – JOpsC is a family of joint future concepts consisting of a Capstone Concept for Joint Operations, Joint Operating Concepts, Joint Functional Concepts, and Joint Integrating Concepts. They are a visualization of future operations and describe how a commander, using military art and science, might employ capabilities necessary to successfully meet challenges 8 to 20 years in the future. Ideally, they will produce military capabilities that render previous ways of warfighting obsolete and may significantly change the measures of success in military operations overall. JOpsC presents a detailed description of "how" future operations may be conducted and provides the conceptual basis for joint experimentation and capabilities-based assessments (CBAs). The outcomes of experimentation and CBA will underpin investment decisions leading to the development of new military capabilities beyond the Future Years Defense Program.

joint potential designator (JPD) - A designation assigned by the Gatekeeper to determine the Joint Capabilities Integration and Development System (JCIDS)

validation and approval process and the potential requirement for certifications/endorsements.

a. "JROC Interest" designation will apply to all acquisition category (ACAT) I/IA programs and ACAT II and below programs where these capabilities have a significant impact on joint warfighting or have a potentially significant impact across Services or interoperability in allied and coalition operations. All joint capabilities documents and joint doctrine, organization, training, materiel, leadership and education, personnel, and facilities change recommendation documents (DCRs) will be designated JROC Interest. This designation may also apply to intelligence capabilities that support DOD and national intelligence requirements. These documents will receive all applicable certifications, including a weapon safety endorsement when appropriate, and be staffed through the JROC for validation and approval. An exception may be made for ACAT IAM programs without significant impact on joint warfighting (i.e., business oriented systems). These programs may be designated either Joint Integration, Joint Information, or Independent.

b. "Joint Integration" designation will apply to ACAT II and below programs where the capabilities and/or systems associated with the document do not significantly affect the joint force and an expanded review is not required. Staffing is required for applicable certifications (information technology and National Security Systems (NSS) interoperability and supportability and/or intelligence), and for a weapon safety endorsement, when appropriate. Once the required certification(s)/weapon safety endorsement are completed, the document may be reviewed by the FCB. Joint Integration documents are validated and approved by the sponsoring component.

c. "Joint Information" designation applies to ACAT II and below programs that have interest or potential impact across Services or agencies but do not have significant impact on the joint force and do not reach the threshold for JROC Interest. No certifications or endorsements are required. Once designated Joint Information, staffing is required for informational purposes only and the FCB may review the document. Joint Information documents are validated and approved by the sponsoring component.

d. "Independent" designation will apply to ACAT II and below programs where the capabilities and/or systems associated with the document do not significantly affect the joint force, an expanded review is not required, and no certifications or endorsements are required. Once designated Independent, the FCB may review the document. Independent documents are validated and approved by the sponsoring component.

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.

joint urgent operational need (JUON) – An urgent operational need identified by a combatant commander involved in an ongoing named operation. A JUON's main purpose is to identify and subsequently gain Joint Staff validation and resourcing solution, usually within days or weeks, to meet a specific high-priority combatant commander need. The scope of a combatant commander JUON will be limited to addressing urgent operational needs that: (1) fall outside of the established Service processes; and (2) most importantly, if not addresses immediately, will seriously endanger personnel or pose a major threat to ongoing operations. They should not involve the development of a new technology or capability; however, the acceleration of a Joint Capability Technology Demonstration/Advanced Concept Technology Demonstration or minor modification of an existing system to adapt to a new or similar mission is within the scope of the JUON validation and resourcing process.

Joint Weapon Safety Technical Advisory Panel (JWSTAP) – The JWSTAP provides subject matter expertise review and constructive comments to the Deputy Director for Force Protection (DDFP) regarding the safe employment, storage, and transport of munitions and weapons in joint operating environments. Pre-existing requirement or capability documents are not within the scope of the JWSTAP. The JWSTAP review is focused on the capability attributes and metrics of a given weapon to identify potential safety issues resulting from interaction between the proposed weapon and other capabilities existing within the same joint operating environment. Safety concerns identified by the JWSTAP are presented to the DDFP with recommended revisions to the capability document to reduce or eliminate the identified safety concern while maintaining the desired operational effectiveness.

key decision point (KDP) – Major decision points that separate the phases of a DOD space program.

key performance parameters (KPP) - Those attributes or characteristics of a system that are considered critical or essential to the development of an effective military capability and those attributes that make a significant contribution to the characteristics of the future joint force as defined in the Capstone Concept for Joint Operations. KPPs must be testable to enable feedback from test and evaluation efforts to the requirements process. KPPs are validated by the Joint Requirement Oversight Council (JROC) for JROC Interest documents, and by the DOD component for Joint Integration, Joint Information, or Independent documents. Capability development and capability production document KPPs are included verbatim in the acquisition program baseline.

key system attribute (KSA) – An attribute or characteristic considered crucial in support of achieving a balanced solution/approach to a key performance parameter (KPP) or some other key performance attribute deemed necessary by the sponsor. KSAs provide decision makers with an additional level of

capability performance characteristics below the KPP level and require a sponsor 4-star , Defense agency commander, or Principal Staff Assistant to change.

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 - Correction of a deficiency, satisfaction of a capability gap, or incorporation of new technology that results in the development, acquisition, procurement, or fielding of a new item (including ships, tanks, self-propelled weapons, aircraft, etc., and related software, spares, repair parts, and support equipment, but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support military activities without disruption as to its application for administrative or combat purposes. In the case of family of systems and system of systems approaches, an individual materiel solution may not fully satisfy a necessary capability gap on its own.

measures of effectiveness - Measures designed to correspond to accomplishment of mission objectives and achievement of desired effects.

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 Under Secretary of Defense for Acquisition, Technology and Logistics, the Assistant Secretary of Defense (Networks and Information Integration) (for Automated Information System acquisition programs) or by the Under Secretary of the Air Force (as the DOD Space MDA) to approve entry of an acquisition program into the next phase.

Military Department - One of the departments within the Department of Defense created by the National Security Act of 1947, as amended.

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 (MRB) - The MRB 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 and provides advice and council on future requirements funded outside that body.

most pressing military issues (MPMI) - The Joint Requirements Oversight Council (JROC) approved list of most pressing military issues (MPMI) that will be used to provide the JROC's priority guidance on solving select combatant command and Department issues. The MPMI is intended to be used as a focusing construct for those issues that come before the JROC.

National Security Systems - Telecommunications and information systems operated by the Department of Defense, 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-centric - Relating to or representing the attributes of a net-centric environment. A net-centric environment is a robust, globally interconnected network environment (including infrastructure, systems, processes, and people) in which data is shared timely and seamlessly among users, applications, and platforms. A net-centric environment enables substantially improved military situational awareness and significantly shortened decision-making cycles.

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 measurable and testable characteristics and/or performance metrics required for 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:

    a. Compliance with the Net-Centric Operations and Warfare Reference Model.

    b. Compliance with applicable Global Information Grid key interface profiles.

    c. Verification of compliance with DOD information assurance requirements.

    d. Supporting integrated architecture products required to assess information exchange and use for a given capability.

non-developmental item - Any previously developed item used exclusively for governmental purposes by a federal agency, a state or local government, or a foreign government with which the United States has a mutual defense cooperation agreement.

non-materiel solution - Changes in doctrine, organization, training, materiel, leadership and education, personnel, facilities, or policy (including all human systems integration domains) to satisfy identified functional capabilities. The materiel portion is restricted to commercial or non-developmental items, which may be purchased commercially, or by purchasing more systems from an existing materiel program.

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.

occupational health - Activities directed toward anticipation, recognition, evaluation, and control of potential occupational and environmental health hazards; preventing injuries and illness of personnel during operations; and accomplishment of mission at acceptable levels of risk.

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, 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, environmental, safety and occupational health, 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.

qualified prototype project – A unique materiel system developed for demonstration under field conditions to confirm adequacy as a solution for a validated mission gap. To be a qualified project, a prototype must have Joint Capabilities Integration and Development System validation of mission gap and include an independent military utility assessment and/or final report including those relevant elements of an initial capabilities document.

quick reaction technology project – A research project transitioning products directly into demonstrations under field conditions and intended for immediate warfighting end users. To be a qualified project, a prototype must have Joint Capabilities Integration and Development System validation of mission gap and include an independent military utility assessment and/or final report including those relevant elements of an initial capabilities document.

safety - The programs, risk management activities, and organizational and cultural values dedicated to preventing injuries and accidental loss of human and materiel resources, and to protecting the environment from the damaging effects of DOD mishaps.

Senior Warfighter Forum (SWarF) – The SWarF is a mechanism by which a combatant commander can engage with his senior warfighting counterparts to identify the issues and capabilities associated with a particular mission or function of one or more combatant commands. The scope of a SWarF is defined by the combatant commander leading the effort. The results of the SWarF may be used to support the development of a joint capabilities document to identify joint warfighting capabilities and gaps in those capabilities.

sponsor - The DOD component, principal staff assistant, or domain owner responsible for all common documentation, periodic reporting, and funding actions required to support the capabilities development and acquisition process for a specific capability proposal. The only exception is for the sponsor of a joint capabilities document (JCD). A combatant command or Functional Capabilities Board may be the sponsor for the JCD. In this usage, the responsibilities of the sponsor are limited to performing the capabilities-based assessment and developing the JCD for Joint Requirements Oversight Council validation and approval.

supportability – A key component of system availability. It includes design, technical support data, and maintenance procedures to facilitate detection, isolation, and timely repair and/or replacement of system anomalies. This includes factors such as diagnostics, prognostics, real-time maintenance data collection, and human systems integration considerations.

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, infrastructure assets, materiel, and consumables necessary to support military effort.

sustainment - The provision of personnel, training, logistic, environment, safety and occupational health management, 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 could significantly degrade the performance or capabilities of the whole. The development of an SoS solution will involve trade space between the systems as well as within an individual system performance.

system training – All training methodologies (embedded, institutional, Mobile Training Team, computer, and Web based) that can be used to train and educate operator and maintainer personnel in the proper technical employment and repair of the equipment and components of a system, and to educate and train the commanders and staffs in the doctrinal tactics, techniques, and procedures for employing the system in operations and missions.

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 and Defense agencies 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. In the role as Chairman of the Joint Requirements Oversight Council (JROC), the Vice Chairman of the Joint Chiefs of Staff is the validation authority for all potential major defense acquisition programs. The validation authority for Joint Capabilities Integration and Development System documents is dependent upon the joint potential designator of the program or initiative as specified below:

    a. JROC Interest – JROC or as delegated.

    b. Joint Integration - Sponsor

   c. Joint Information - Sponsor

   d. Independent – Sponsor

<u>weapon</u> – Military munitions, directed energy weapons, electromagnetic rail guns, together with firing, launching, and controlling systems including safety critical software. Nuclear weapons and their components, small arms and associate ammunition (.50 caliber or 8 gauge or smaller); intercontinental ballistic missiles, space launch vehicles, and the non-weapon related aspects of vehicles or platforms from which military munitions or directed energy weapons are fired or launched are excluded.

<u>weapon safety endorsement</u> – Endorsement is the means for documenting, in support of the JCIDS process, the extent to which weapon capabilities documents provide for safe integration into joint operating environments. Endorsement recommendations will be prepared by the Joint Weapon Safety Technical Advisory Panel and submitted to the J-8/Deputy Director for Force Protection for appropriate staffing and endorsement by the Force Protection Functional Capability Board.