MANUAL FOR THE OPERATION OF THE JOINT CAPABILITIES INTEGRATION AND DEVELOPMENT SYSTEM

References: See Enclosure I.

1. Purpose. This Manual augments references a and b with detailed guidelines and procedures for operation of the Joint Capabilities Integration and Development System (JCIDS), and interactions with several other departmental processes to facilitate the timely and cost effective development of capability solutions for the warfighter. This Manual provides information regarding activities including identification of capability requirements and capability gaps, development of requirements documents, gatekeeping and staffing procedures, post-validation development and implementation of materiel and non-materiel capability solutions, interaction with other Department of Defense (DOD) processes, and mandatory training for personnel involved in the requirements processes. **This Manual is not intended to stand alone – readers are encouraged to become familiar with references a and b before reviewing this Manual.**

2. Cancellation. None. This Manual is a "live" document with updates incorporated as directed by the Joint Requirements Oversight Council (JROC). This update replaces the 31 Jan 2011 version, which was the last official release.

3. Applicability. This Manual applies to the Joint Staff, Services, Combatant Commands (CCMDs), and other DOD Components.

4. Procedures. This Manual provides procedural guidance for the overall JCIDS process illustrated in Figure 1 as well as other related activities:

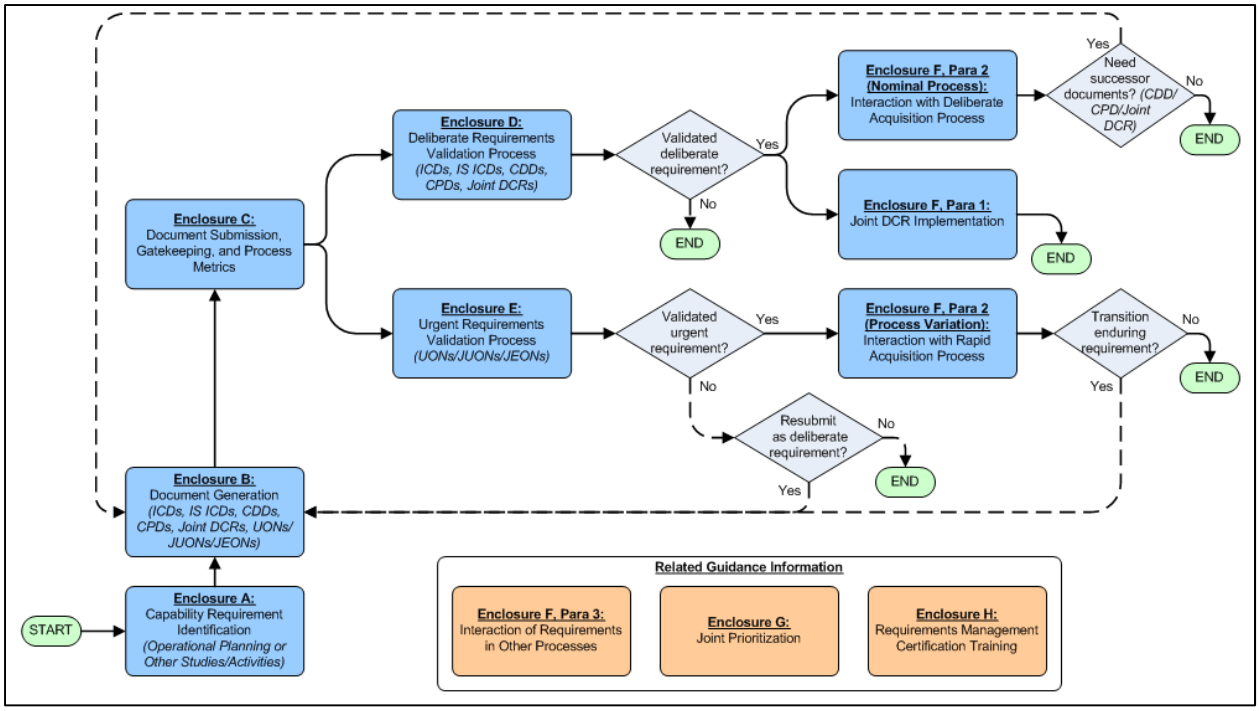

Figure 1. Overview of JCIDS Process

a. Precursor Instructions. Familiarity with two Chairman of the Joint Chiefs of Staff (CJCS) Instructions (CJCSIs) is critical to understanding the information in this Manual.

(1) Reference a implements the JROC and the structure of its subordinate boards, and identifies other participating organizations. The JCIDS process described in this Manual and reference b are based upon the structures and organizations described in this reference.

(2) Reference b establishes the JCIDS process as the primary means for the JROC to fulfill its advisory responsibilities to the CJCS in identifying, assessing, validating, and prioritizing joint military capability requirements. The description of the JCIDS process in reference b provides the overview for the detailed information contained in this Manual.

b. Requirement Identification and Document Generation

(1) Enclosure A outlines the various processes which DOD Components and other applicable organizations – known as "Sponsors" of JCIDS documents – use to identify their capability requirements and associated capability gaps for potential submission into the JCIDS process for review and validation. The Enclosure also includes discussion of Capabilities-Based Assessments (CBAs) and other studies as well as operation of the Knowledge Management / Decision Support (KM/DS) studies repository. The KM/DS system can be

found at the address in reference c, and additional information can be found at the KM/DS wiki at the address in reference d.

(2) Enclosure B outlines the different JCIDS documents which are used to articulate capability requirements and associated capability gaps for initial review and validation, as well as to provide more refined capability requirements related to specific materiel and non-materiel capability solutions for review and validation. The Enclosure also outlines the Capability Development Tracking and Management (CDTM) tool used for document generation. The CDTM tool can be found at the address in reference e, and additional information can be found at the CDTM wiki at the address in reference f.

c. Document Staffing and Validation

(1) Enclosure C outlines the gatekeeping processes for all incoming JCIDS documents prior to deliberate or expedited staffing and validation.

(2) Enclosure D outlines the deliberate staffing process used for the review and validation of the majority of Sponsor submitted capability requirements and capability gaps.

(3) Enclosure E outlines the urgent/emergent staffing process for expedited review and validation of critical capability requirements related to preventing loss of life or mission failure in ongoing or anticipated contingency operations.

d. Post-Validation Processes and Interactions. Enclosure F discusses the critical interactions between JCIDS and the implementation of non-materiel capability solutions, deliberate and rapid acquisition activities conducted through the Defense Acquisition System (DAS) based upon the capability requirements contained in validated JCIDS documents, and other DOD processes related to capability requirements.

e. Other Activities

(1) Enclosure G provides detail of the Joint prioritization activities performed by the Functional Capabilities Boards (FCBs).

(2) Enclosure H outlines mandated training for personnel involved in the requirements processes.

5. Summary of Major Changes

a. This update to the JCIDS Manual reflects significant changes and updates to accompany the complete re-write of references a and b. Change bars are not indicated and the Manual should be reviewed in its entirety.

b. This Manual also includes portions of the now superseded CJCSI 3470.01 and CJCSI 3137.01D in order to streamline requirement related instructions and manuals. Portions of these instructions not consolidated in this Manual are consolidated into references a and b.

6. Releasability. This Manual is approved for public release; distribution is unlimited.

7. Effective Date. This Manual is effective upon receipt.

REQUIREMENT IDENTIFICATION AND DOCUMENT GENERATION

DOCUMENT STAFFING AND VALIDATION

OTHER ACTIVITIES

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ENCLOSURE A

IDENTIFICATION OF CAPABILITY REQUIREMENTS AND CAPABILITY GAPS

1. Overview. Before any action can be taken in the JCIDS process related to reviewing and validating requirements documents, Sponsors must first identify capability requirements related to their functions, roles, missions, and operations, and then determine if there are any capability gaps which present an unacceptable level of risk and warrant further action in JCIDS.

2. Organizational Functions/Roles/Missions/Operations

a. Identification of capability requirements and associated capability gaps begins with the Sponsor's organizational functions, roles, missions, and operations, in the context of a framework of strategic guidance documents, and if applicable, overarching plans.

b. The National Security Strategy (NSS), the National Strategy for Homeland Security; the National Defense Strategy (NDS) or the most recent Quadrennial Defense Review (QDR) Report; and the National Military Strategy (NMS) provide the overarching description of the Nation's defense interests, objectives, and priorities. In addition, the Defense Planning Guidance (DPG), the Guidance for the Employment of the Force (GEF), the Chairman's Risk Assessment (CRA), and the Joint Strategic Capabilities Plan (JSCP) contain further guidance for objectives and priorities, and provide a framework for assessment.

3. Identification of Capability Requirements

a. Sponsors may pursue a variety of approaches to determine their organizational capability requirements, depending upon the timeliness of the assessment and the scope of the activities being reviewed. Figure A-1 shows the general concept of identifying capability requirements.

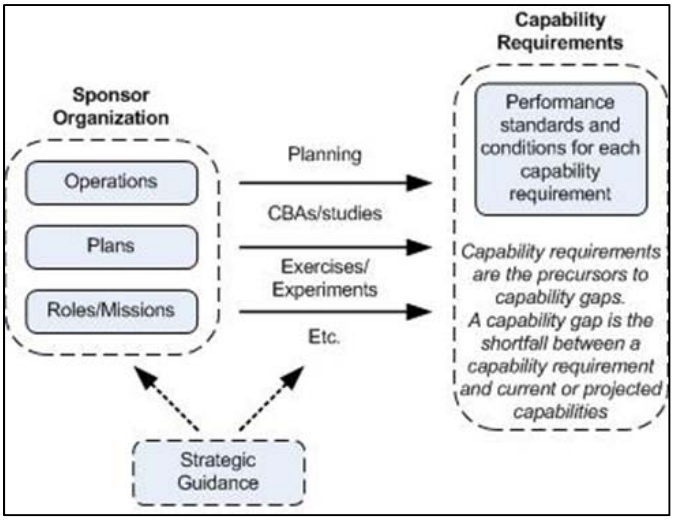

Figure A-1. Overview of Sponsor Identification of Capability Requirements

b. The fundamental goal of each approach is to derive and refine capability requirements – either organically or leveraged through the Joint force – necessary to accomplish their assigned functions, roles, missions, and operations. Primary outputs include:

(1) description of the mission and military problem being assessed.

(2) identification and assessment of prior CBAs, studies, and other analytical products applicable to the area of interest.

(3) identification of the tasks to be completed to meet the mission objectives.

(4) identification of the capability requirements within one or more of the JCAs, described in terms of the tasks, performance, and conditions.

(5) assessment of capability gaps between the identified capability requirements and current or programmed force capabilities.

(6) assessment of operational risks associated with each capability gap if not addressed.

(7) evaluation of possible non-materiel and materiel approaches to satisfy part or all of the capability requirements and close or mitigate the associated capability gaps.

(8) recommendation for the most appropriate approach to be taken to close or mitigate capability gaps and reduce operational risk.

c. While Sponsor activities may examine various aspects of their capability requirements in significant levels of detail, the key for JCIDS is to establish the high level operational capabilities which are required, place them in the context of overall strategic and operational goals, and be able to compare them to legacy capability solutions, if any, in order to evaluate the most appropriate path forward to satisfy the capability requirements and reduce or eliminate any associated capability gaps.

d. Identified capability requirements must be traceable to approved Joint Concepts developed in accordance with reference g, or a Concept of Operations (CONOPS) developed in conjunction with an approved operation plan (OPLAN), concept plan (CONPLAN), Integrated Security Constructs (ISCs) which are part of the DOD Analytic Baseline developed in accordance with references h and i, and/or other JROC approved guidance. Traceability to the CRA should also be provided when applicable. Efforts identifying capability requirements for Information Systems (IS) should use the existing DOD Information Enterprise Architecture and related solution architectures in accordance with reference j. CONOPS must be endorsed by the JROC, a CCMD, a Service, or a defense agency. These documents form the basis for validating capability requirements and associated gaps and risks, and support any recommendations for development and deployment of new or improved capability solutions.

e. Each approach for identifying capability requirements should not presuppose a specific capability solution or end item, but provide data related to forms and functions of potential solutions to support the development of JCIDS documents. The final recommendations should include a focused and concise summary of the justification for the proposed action.

f. Each approach must identify and build upon any previous CBAs, studies, and other analytical products applicable to the area of interest. The intent is to avoid any unnecessary repetition of prior efforts, and provide continuity between analyses for reviewers and decision makers. This does not preclude the Sponsoring organization from applying different context or different assumptions, as appropriate for the approach being pursued.

g. Due to the wide array of issues that may be considered, the breadth and depth of each approach must be tailored to suit the issue. The approach must be sufficient to develop coherent and well-supported recommendations, which the validation authority will then use to validate the capability requirements and associated capability gaps to support possible follow-on actions.

4. Approaches. Approaches for identifying capability requirements may include, but are not limited to:

a. Operational Planning. Operational planning is performed in accordance with references k through n.

(1) Development of OPLANs and CONPLANs is one means to identify capability requirements related to CCMD roles and missions and the assignment or attachment of forces.

(2) Planning for ongoing contingency operations may identify urgent operational needs (UONs) which represent potential for critical mission failure or unacceptable loss of life if not satisfied by a rapidly acquired capability solution. These capability requirements may qualify for submission as Joint UONs (JUONs) or DOD Component UONs for expedited validation and rapid acquisition efforts. Details of JUON documents are in Enclosure B and details of DOD Component UONs are in references o through u.

(3) Planning for anticipated contingency operations may identify operational needs which represent potential mission failure or unacceptable loss of life once operations commence, if not satisfied by a rapidly acquired capability solution. These capability requirements may qualify for submission as Joint Emergent Operational Needs (JEONs) or DOD Component UONs for expedited validation and rapid acquisition efforts. Details of JEON documents are in Enclosure B and details of DOD Component UONs are in references o through u.

b. CBAs and other studies

(1) The CBA is an analytic basis to identify capability requirements and associated capability gaps. The JROC preference is to avoid unnecessary rigor and time-consuming detail in the CBA, and concentrate on whether to recommend action. CBAs that are tightly focused on recapitalization or replacement actions for existing capability solutions should take no more than 90 calendar days, while more complex CBAs dealing with large uncertainties or new mission areas should take no more than calendar 180 days. Results of a CBA or other study provide the source material for one or more Initial Capabilities Documents (ICDs), or other JCIDS documents in certain cases when an ICD not required. Details of the CBA process are in this Enclosure and in references v through y.

(2) Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTmLPF-P) Analysis is part of all CBAs, but may be used independent of a CBA when the scope of an issue being studied is not likely to result in new materiel solution development. The eight DOTmLPF-P areas are:

(a) 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 in accordance with reference z. Joint doctrine is authoritative guidance and will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise.

(b) 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 and elements coordinate with other units and elements and, as a whole, enable the higher-level joint unit or element to accomplish its mission. This includes the joint staffing (military, civilian, and contractor support) required to plan operate, sustain, and reconstitute joint warfighting capabilities.

(c) 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 CCMDs to execute their assigned or anticipated missions.

(d) 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. The letter “m” in the acronym is usually lower case since Joint DCRs do not advocate new materiel development, but rather advocate increased quantities of existing materiel capability solutions or use in alternate applications.

(e) Leadership and Education. Professional development of the joint leader is the product of a learning continuum that comprises training, experience, education, and self-improvement. The role of joint professional military education is to provide the education needed to complement training, experience, and self-improvement to produce the most professionally competent individuals possible.

(f) Personnel. The personnel component primarily ensures that qualified personnel exist to support joint capability requirements. This is accomplished through synchronized efforts of joint force commanders and DOD components to optimize personnel support to the joint force to ensure success of ongoing peacetime, contingency, and wartime operations.

(g) Facilities. Real property consisting of one or more of the following: buildings, structures, utility systems, associated roads and other pavements, and underlying land. Key facilities are defined as 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.

(h) Policy. Any DOD, interagency, or international policy issues that may prevent effective implementation of changes in the other seven DOTmLPF-P elemental areas.

(3) The DOTmLPF-P Analysis generally results in one or more DOTmLPF-P Change Recommendation (DCRs) without an associated ICD.

(a) DCRs which impact only the Sponsor organization may be handled in accordance with policies and processes of that organization.

(b) DCRs which impact multiple organizations typically lead to a Joint DCR for review and validation. Details of Joint DCR documents are in Enclosure B.

(4) Other studies. Organizations may conduct other forms of studies, analyses, or assessments which cover some aspects of what is typically covered in CBAs and DOTmLPF-P analysis. These other studies may be used as sources of capability requirements, but may need to be augmented or further refined by through additional efforts before having sufficient data to generate JCIDS documents.

c. Exercise/Warfighting Lessons Learned. Warfighting and exercise lessons learned may serve as a basis to establish capability requirements, if the documentation indicates sufficient military utility of a certain capability. Lessons Learned may lead to further analysis and development of JCIDS documents for validation in the deliberate or urgent/emergent staffing processes. Details of the Joint Lessons Learned program are in reference aa.

d. Joint Capability Technology Demonstrations (JCTDs), JUON/JEON solutions, and other experiments.

(1) JCTDs or other prototypes tested in the field may serve as a basis to establish capability requirements, if an assessment indicates sufficient military utility of a demonstrated capability solution. More information on JCTDs is available from the JCTD Office in reference bb.

(2) Successful capability solutions for JUONs and JEONs, which were rapidly acquired and fielded, may serve as a basis for transitioning capability requirements for sustainment and/or further development if they have a positive assessment of operational utility documented by the original requirement Sponsor. See Enclosure F for details of assessments of

operational utility for rapidly fielded capability solutions in support of JUONs and JEONs.

(3) Documentation of Joint or DOD Component Experimentation may serve as a basis to establish capability requirements, if the documentation indicates sufficient military utility of a certain capability. Details of Joint Experimentation are in reference g.

(4) At a minimum, the assessments must establish the operational utility of the capability solution and provide the basis for establishing an enduring capability requirement. Beyond that, the scope of the assessment is tailorable depending upon the level of detail available to the Sponsor and the nature of the demonstrated capability solution.

(a) An assessment may be a suitable replacement for analysis used as the basis for ICD, CDD, or CPD preparation, depending upon the maturity of the capability solution. In these cases, assessments should contain the critical elements of information that are required in the documents, including description of the capability requirements and associated gap(s); associated tasks, conditions, and operational performance standards/metrics; and how the materiel and non-materiel approaches address these factors.

(b) An assessment for a capability solution initiated through a UON, JUON, or JEON does not need to duplicate information already contained in the validated UON, JUON, or JEON. However, the assessment may address refinements to the original capability requirements as needed to reflect lessons learned from operating the rapidly fielded capability solution.

(c) If the assessment does not provide sufficient detail to fully develop JCIDS documents, additional studies or analysis may be used to complement the data available from the assessment.

e. Joint Improvised Explosive Device (IED) Defeat Initiative Transition. The Joint IED Defeat Transition Packet, which is completed after the Joint IED Defeat Organization (JIEDDO) validates an initiative, may serve as a basis for establishing capability requirements. The Transition Packet will be used as the source document for developing a Capability Development Document (CDD) or Capability Production Document (CPD) for subsequent review and validation, and transition to a program of record. See reference cc.

f. Defense Business Systems (DBS) – Business Case Documents. Regardless of cost, IS that are not part of weapon systems or directly involved in the fulfillment of military or intelligence missions, are DBS and are validated by the Defense Business Systems Management Committee (DBSMC) as outlined in reference dd. These systems will employ a business case document using the Business Capability Lifecycle (BCL) process in lieu of an ICD/CDD to

document the capability requirements and associated capability solutions. Business case documents will be uploaded to the KM/DS system for visibility and to enable review of Joint equities. In those cases where the JCIDS Gatekeeper, on the advice of the appropriate FCB, determines that joint oversight of the DBS is required, the business case document will be used in lieu of the typical JCIDS documents during staffing and validation.

5. Identification of Capability Gaps and Recommendations. Once the Sponsor determines their capability requirements, they must determine the associated capability gaps and recommended JCIDS action. Figure A-2 illustrates the basic approaches which are detailed in the following paragraphs.

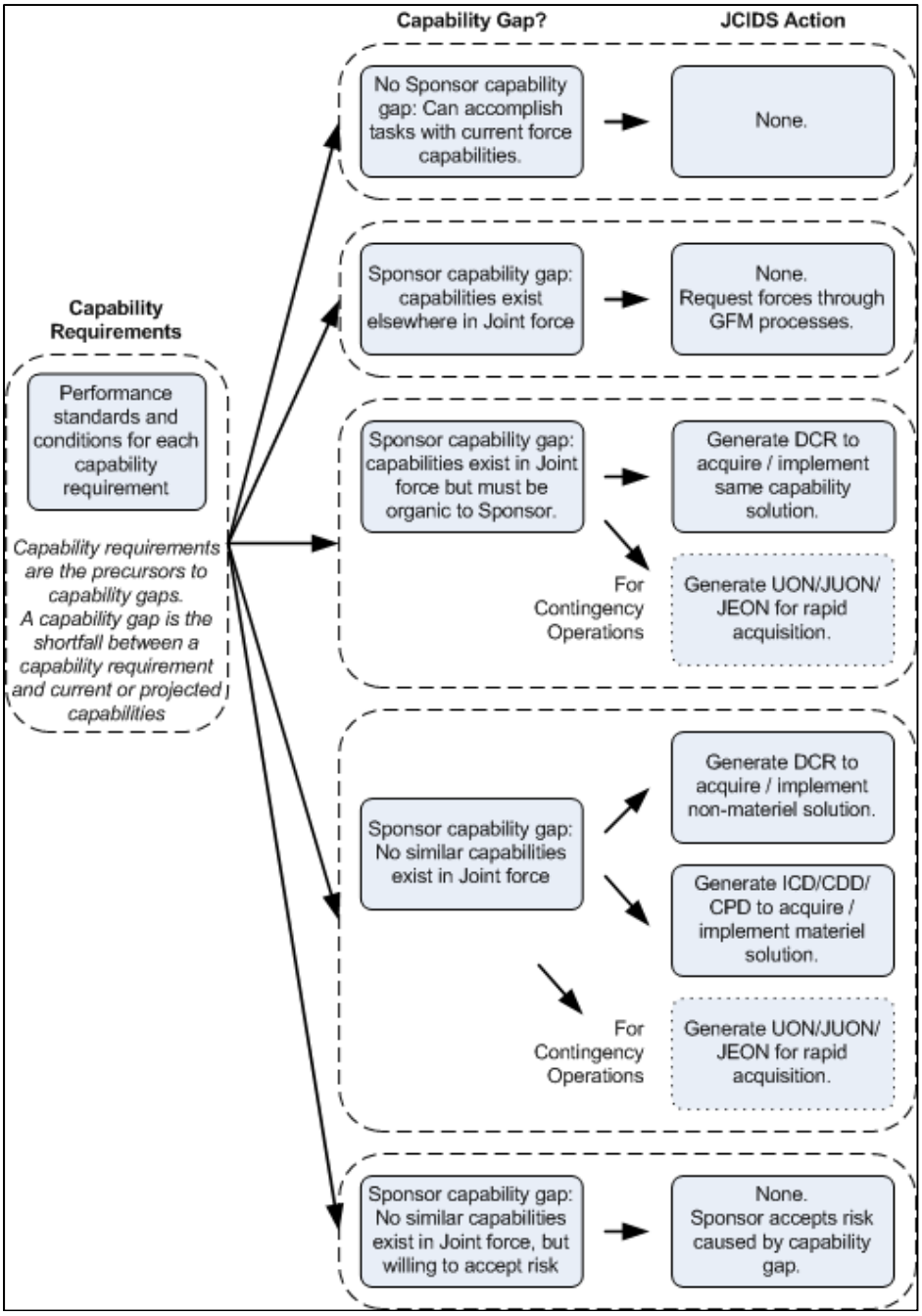

Figure A-2. Sponsor Identification of Associated Capability Gaps and Resulting JCIDS Action

a. If the Sponsor identifies capability requirements which they can satisfy with current or projected capability solutions, then they do not have a capability gap and do not create a new JCIDS document.

b. If the Sponsor identifies capability requirements which they cannot satisfy with their current or projected capability solutions, then they have a capability gap which may require further action.

(1) If capability solutions which can satisfy the Sponsor capability requirements exist elsewhere in the Joint force, the Sponsor does not create a new JCIDS document but uses a Request for Forces (RFF) or Request for Capabilities (RFC) and the Global Force Management (GFM) process to request forces and their associated capabilities in accordance with references k and ee.

(2) If capability solutions which can satisfy the Sponsor capability requirements exist elsewhere in the Joint force, but must be organic to the Sponsor organization:

(a) To leverage entire capability solutions "off the shelf", the Sponsor may generate a Joint DCR for validation in JCIDS to establish the existing capability solution in the Sponsor organization. In urgent situations supporting ongoing or anticipated contingency operations, the Sponsor may generate a JUON, JEON, or DOD Component UON for greater expediency. Expect extra scrutiny during validation if it is unclear why use of the GFM process and leveraging the Joint force is not appropriate to satisfying the Sponsor's capability requirement.

(b) To leverage only portions of other existing capability solutions, to be integrated into one or more of the Sponsor's capability solutions, the Sponsor may generate a Joint DCR for validation in JCIDS to establish the requirement to leverage part of another Sponsor's capability solution. The implementation of the Joint DCR may involve updates to existing CDDs or CPDs to provide for broadened scope, and submittal for review and revalidation.

(3) If capability solutions which can satisfy the Sponsor capability requirements do not exist in the Joint force, the Sponsor has three primary options:

(a) If the capability requirement can be satisfied through a non-materiel approach, generate a Joint DCR for validation in JCIDS, to establish a new non-materiel solution in the Sponsor organization.

(b) If it is unclear whether the capability requirement should be satisfied through a non-materiel approach, materiel approach, or both, generate an ICD for validation in JCIDS. Sponsor analyses following ICD validation, such as an analysis of alternatives (AoA), additional DOTmLPF-P analysis, or other study, will determine which successor documents – Joint DCRs for non-materiel solutions and/or CDDs/CPDs for materiel solutions – should be generated and submitted to JCIDS to support follow-on efforts.

(c) If the capability requirements are driven by ongoing or anticipated contingency operations, and prevent left unfulfilled would result in

unacceptable loss of life or critical mission failure, the Sponsor may generate a JUON, JEON, or DOD Component UON document for expedited staffing and validation in the JCIDS or DOD Component processes.

(4) If capability solutions which can satisfy the Sponsor capability requirements do not exist in the Joint force, but the Sponsor is willing to accept risk, then no JCIDS document is generated.

6. Studies Repository. The Gatekeeper maintains a studies repository to facilitate visibility into, and potential reuse of, studies related to capability requirements and the generation of JCIDS documents.

a. Sponsors will provide results of any studies or analyses intended to support JCIDS documents to the studies repository. Posted study materials facilitate more streamlined requirements documentation, allowing JCIDS documents to refer to the study data rather than replicate information unnecessarily. The studies repository is also used to capture assessments of JCTDs, fielded UONs/JUONs/JEONs, and other demonstrations of capability solutions in an operational environment, as well as other alternate forms of supporting documentation for capability requirements.

b. Historical study data in the repository also facilitates leverage of prior studies and efforts across the Joint force to reduce unnecessary duplication of prior efforts and enable shorter timelines with more focused study efforts. To the greatest extent possible, the Sponsors should leverage historical information from the studies repository and other sources, and focus CBAs and other studies only in areas which require new or updated analysis.

c. If details of a study, copy of an assessment, or other documentation intended to justify a capability requirement is not in the studies repository at the time the Sponsor intends to submit a related JCIDS document, the Sponsor will provide the supporting documentation before submitting the related JCIDS document for staffing and validation.

d. Submission of studies and other documents to the studies repository

(1) Documents classified SECRET and below. Sponsors upload documents to the KM/DS system located at the address in reference c.

(2) Documents classified above SECRET. Sponsors upload a placeholder record into the KM/DS system with instructions on document location and how to request access.

(3) Documents addressing special access programs (SAP). SAP studies are not part of the studies repository and no placeholder records are entered

into the KM/DS system. SAP documents requiring Joint Staff visibility are submitted via the Joint Staff SAPCO.

e. To facilitate greater visibility into ongoing studies, encourage collaboration, leverage efforts where appropriate, and reduce unnecessary duplication of current study efforts, Sponsors of any studies intended for or likely to drive submission of new capability requirements in the JCIDS process will provide a study initiation notice to the studies repository.

(1) Study initiation notices provided to the studies repository should be concise but provide sufficient information for a reader to determine if the scope of the study is of interest and worth contacting the point of contact (POC) for further information or discussion. The notice should be in memo format and contain at least the following elements:

(a) Date of the notification memo.

(b) Title of the study.

(c) Executive summary/purpose of the study.

(d) Participating organization(s).

(e) Intended completion date.

(f) Lead organization POC and contact information.

(g) Tier 1 and 2 Joint Capability Areas (JCAs) related to primary focus of study.

(2) The Gatekeeper will notify FCBs with potential interest in the study topic based upon their respective JCAs. FCB members and other interested stakeholders can review the study initiation notices to determine if there is any opportunity for collaboration on or leverage of study efforts. As appropriate, interested stakeholders may contact the Sponsor to discuss potential for collaboration and/or shared study efforts.

(3) In the event of a study being discontinued prior to providing any significant results, the Sponsor will provide a termination notice in the studies repository. The notice should be in memo format and contain at least the following elements:

(a) Date of the termination notice memo.

(b) Title of the study from the original initiation notice.

(c) Date of the original initiation notice memo.

(d) Purpose/reason for cancellation (i.e. – funding limitations, superseded by or consolidated into another study effort (provide reference info), or overcome by external events such as updated strategic guidance, altered threats, etc.)

(e) Lead organization POC and contact information.

e. Results of studies indicating that there is a lack of a need to pursue new capability requirements for the context being studied should still be provided to the studies repository for future reference. This "negative" conclusion can prevent unnecessary duplication of studies reaching the same negative conclusion. Altered strategic guidance, threats, or other conditions in the future, may allow the prior study to be used to support different conclusions in a much shorter timeframe, if available for review and modification.

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APPENDIX A TO ENCLOSURE A

JOINT CAPABILITY AREA ATTRIBUTES

1. This Appendix provides a common basis for definition of capabilities in the four enabling capability portfolios: battlespace awareness, command and control, logistics, and net-centric.

2. Battlespace Awareness Attributes:

Comprehensive

Persistent

Survivable

Integrated

Timely

Credible

Adaptable

Innovative

Interoperable

3. Command and Control Attributes:

Interoperability

Understanding

Timeliness

Accessibility

Simplicity

Completeness

Agility

Accuracy

Relevance

Robustness

Operational Trust

Security

4. Logistics Attributes:

Deployment And Distribution	Supply	Maintain
Visibility	Responsiveness	Sustainability
Reliability	Sustainability	Responsiveness
Velocity	Flexibility	Attainability
Precision	Survivability	Flexibility
Survivability	Attainability	Economy
Economy	Economy	Survivability
Capacity	Simplicity	Simplicity

Logistics Services	Operational Contract Support	Engineering
Responsiveness	Responsiveness	Effective
Attainability	Accountability	Expeditionary
Sustainability	Attainability	Agile/Tailorable
Flexibility	Flexibility	Networked
Economy	Survivability	Integrated
Survivability	Sustainability	Precise
Simplicity	Simplicity	Enduring/ Persistence
	Economy	

5. Net-centric Attributes:

Information Transport	Enterprise Services	Net Management	Information Assurance
Accessible	Accessible	Accessible	Security
Capacity	Interoperable	Dynamic	Available
Accurate	Survivable	Flexible	Timely
Timely	Timely	Agile	Accurate
Throughput	Reliable	Integrated	Visible
Expeditionary	Accurate	Maintainable	Responsive
Latency	Relevant	Complete	Controllable
	Scalable	Reconfigurable	Complete
	Responsive		
	Robust		

APPENDIX B TO ENCLOSURE A

CAPABILITIES BASED ASSESSMENT GUIDE

1. Overview

a. Organizing and executing a successful CBA is a significant challenge. Joint Concepts, developed in accordance with reference g, are specifically designed to drive progress in the DOD, and satisfying the demands of strategic guidance poses significant challenges. Consequently, a CBA, particularly one aimed at a broad mission area should be conducted with a capable Joint team that can bring the necessary spectrum of expertise to bear on the problem.

b. While this Appendix provides an overview of the CBA process, references v through y offer more detailed guidance and best practices relating to these assessments.

2. CBA Process Steps

a. Prior to initiating a CBA, or other studies intended to identify capability requirements and associated capability gaps, the Sponsor provides a study initiation notice to the studies repository.

b. A CBA begins by identifying the mission or military problem to be assessed, the concepts to be examined, the timeframe in which the problem is being assessed, and the scope of the assessment. A CBA determines the relevant concepts, CONOPS, and objectives, and lists the related effects to be achieved. A CBA may also lead to policy development or support and validation of existing policies.

(1) The mission or military problem considered by the CBA must be relevant to the needs of the defense strategy and other strategic guidance.

(a) The CBA should use formally tasked OPLANs and CONPLANs for near-term assessments or the ISCs published by the Office of the Secretary of Defense (OSD) as part of the DOD Analytic Baseline developed in accordance with references h and i. Furthermore, the ISCs must be chosen in such a way that the full spectrum of operational situations relevant to the defense strategy will be examined, including interagency, allied/partner nation, and coalition activities. The CRA also provides operational context for the CBA. Documents such as the NDS, QDR, NMS, DPG, GEF, JSCP, and the Capstone Concept for Joint Operations (CCJO) in reference ff provide several frameworks for describing the breadth of the strategic environment, and these documents should be used to select an adequate scenario sample.

(b) The timeframe is important both to help establish the conditions and threats under which the mission is to be carried out, and as a key component in discussions between the requirement Sponsor and the acquisition community in determining the required Initial Operational Capability (IOC) and Full Operational Capability (FOC) dates. While it is important to scope the assessment to make it manageable, it is equally important to cover the spectrum of strategically relevant operational situations.

(c) Threats to the mission being analyzed can be derived from Defense Intelligence Agency (DIA) validated Capstone Threat Assessments (CTAs), the Multi-Service Force Deployment (MSFD) and the Joint Country Forces Assessments. If additional assistance is required, contact DIA's Defense Warning Office, Acquisition Support Division via the options shown in reference gg.

(2) Any CONOPS used as the basis for a CBA must first be approved by the JROC, Service, CCMD, or other DOD Component. The CONOPS must be documented so that the reviewers and validation authorities can understand the context used to identify and evaluate the capabilities identified. There is no strict format for a CONOPS, but it should describe the following areas at a minimum:

(a) the problem being addressed

(b) the mission

(c) the commander's intent

(d) an operational overview

(e) the objectives to be achieved

(f) the roles and responsibilities of tasked organizations

(3) The military objectives of the ISCs, including mission outcomes and associated desired effect, provide a source for developing the list of required capabilities. These capability requirements, coupled with the ISCs, should be further refined to describe how the objectives are achieved with current or programmed forces, using doctrinal approaches. This step will require a task list be developed to accomplish the proposed and alternative CONOPS, so some flexibility is required. An alternative concept or CONOPS may be based on changing the original approved concept to mitigate the capability gap by using existing capability solutions in a different manner.

(4) The JCAs outlined in reference hh are the DOD method for reviewing and managing capabilities. The JCA framework provides the structure around which capability requirements and capability gaps can be aligned across the Department and across the various portfolios to correlate similar needs, leverage common capability solutions, and synchronize related activities. The Universal Joint Task List (UJTL) outlined in reference ii also provides a framework to aid in identifying and organizing the tasks, conditions and required capabilities.

(5) The operational conditions are derived from ISCs, and capability requirements are derived from tasks that must be accomplished to achieve the military objectives of those ISCs. The CBA produces a set of tasks and measures used to assess the programmed capabilities of the force. These measures should be based on the list of capability attributes outlined in Appendix A to Enclosure A. The CBA must also develop criteria for adequate mission performance. Quantitative criteria for mission success must be established to support the assessment of the materiel reliability characteristics of potential materiel solutions. In most cases, these criteria will not be simple pass-fail standards, but instead will represent a continuum of values.

(6) For capabilities provided by IS, the CBA must use emerging guidance such as the DOD Information Enterprise Architecture in reference jj. To describe and characterize system contributions to military operations, use the Joint Command and Control (J2C) data construct for SECRET and below systems, and the Defense Intelligence Information Environment (DI2E) data construct for TOP SECRET systems, as outlined in references kk and ll.

c. The CBA Sponsor must identify and build upon any previous CBAs, studies, and other analytical products applicable to the area of interest. The intent is to avoid any unnecessary repetition of prior efforts, and provide continuity between analyses for reviewers and decision makers. This does not preclude the Sponsoring organization from applying different context or different assumptions, as appropriate for the current CBA or other study.

d. The next step in a CBA is to determine the level of analytic rigor needed to estimate operational sufficiency to provide appropriate and timely recommendations to inform decision making. The rigor which should be used in a CBA is a function of the uncertainties of the ISCs considered, the consequences of operational failure, and the complexity of the mission being assessed. For example:

(1) When performing a CBA relative to an existing capability solution that may require replacement/recapitalization, or evolution to meet future capability requirements, the CBA is starting from a known baseline and making excursions to address potential future capability requirements. In this

case the CBA should take no more than 60-90 calendar days to demonstrate that the replacement/recapitalization/evolution is required. The alternatives for the solution will be further considered in the AoA or similar review.

(2) When performing a CBA that addresses capability requirements most likely addressed through an IS solution, the CBA should take no more than 90 calendar days. The determination on whether a new IS is required or an existing system can be evolved to meet the need will be further considered in the AoA or similar review.

(3) When performing a CBA that is looking at a new mission with a lot of uncertainty or complexity or is assessing the capability requirements for a new joint concept, the risks and uncertainty drive the need for a more comprehensive CBA to determine if it is necessary to move to an evolution of an existing capability solution or to pursue transformational capabilities to satisfy the capability requirements.

(4) One CBA may address any of these alternatives. In any case the maximum time allotted for the CBA should be no more than 180 calendar days, and the assessment should be tailored to meet this objective. The time allotted does not include the time required for staffing and approval in the Sponsor organization.

e. The CBA Sponsor must then perform the operational assessment of the current and programmed force to identify the capability requirements and any associated capability gaps and potential force redundancies for each scenario. Finally, the CBA assesses the potential operational risk associated with each capability gap.

(1) The capability requirements and capability gaps must be described in terms of the ISCs assessed and the impact on achieving the relevant military objectives. It is likely that the capability gaps will be inconsistent across ISCs, so it is essential to link the capability gaps to their operational context.

(2) The capability gaps are assessed in terms of the risk to mission (the ability to achieve the objectives of the scenario), the risk to force (the potential losses due to the capability gap), and other important considerations, such as resourcing risks and affects on allies. The conditions and standards developed for the associated tasks provide the basis for the assessments.

(3) Using the programmed force and doctrinal approaches, the capability gaps can be characterized as to whether they are due to:

(a) proficiency (inability to achieve the relevant effect in particular conditions);

(b) sufficiency (inability to bring capable forces to bear due to force shortages or other commitments);

(c) lack of existing capability;

(d) need for replacement due to aging (fatigue life, technological obsolescence, etc.) of an existing capability; or

(e) policy limitations (inability to use the force as needed due to policy constraints).

(4) Since a validation authority for JCIDS documents will ultimately decide which capability gaps are important enough to develop new capability solutions, the capability gaps must be directly linked to operational situations and consequences of failing to meet objectives. The CBA must explain the methodology for determining the capability gaps, and ensure that the linkage to the capability requirement and strategic guidance is clear.

(5) Figure A-3 presents an example approach for assessing the risks and consequences associated with a particular capability gap. The capability gap is assessed based on its impact in several areas: ability to achieve the strategic objectives; operational timelines; resources; unanticipated requirements; force provider resourcing; and component functions, force management, institutional capacity.

Risk / Criteria	Low	Moderate	Significant	High
Strategic Objectives	Near certain achievement	Very likely achievement	Likely achievement	Significant risk of failure
Operational Timelines	As planned	Minor extension	Significant delay	Delays with significant risk of failure
Resources	As planned	Requires resources from other plans or operations	Requires resources that create significant shortfalls	Requires resources that preclude other plans or operations
Unanticipated Requirements	Easily managed, minimal impact	Managed via minor adjustments to other plans	Managed via significant adjustments to other plans	Cannot manage
Force Provider Resourcing	Full capacity to source requirements	Sourcing requires limited duration capability gaps	Sourcing requires extended duration capability gaps	Requires full mobilization to cover capability gaps
Institutional Capacity	Full capacity to source requirements	Requires shifts within DOD components to meet requirements	Requires shifts among DOD components to meet requirements	Requirements exceed capacity of the Joint force

Figure A-3. Example Approach for Assessing Risks

f. A CBA then determines if a non-materiel approach can wholly or partially mitigate any of the capability gaps by recommending changes to existing capabilities in one or more of the DOTmLPF-P areas. The most common non-materiel approaches are:

(1) Alternative Doctrinal Approaches and Alternative CONOPS. Investigating alternative CONOPS is a JCIDS requirement. The baseline assessment should only consider doctrinal CONOPS, but the non-materiel approach assessment should consider doctrinal alternatives, particularly those documented in an approved joint concept. Where applicable, alternatives should also consider CONOPS involving allied/partner nation or interagency participation.

(2) Policy Alternatives. When considering policy alternatives, the CBA must document which policies are contributing to capability gaps and under which circumstances. A policy change that allows new applications of existing capabilities or modifies force posture to increase deterrence is always of interest and should be considered. Policy alternatives should identify changes to support of engagements with non-DOD forces – interagency, allied/partner nation, coalition – required to address the related concepts and ISCs.

(3) Organizational and personnel alternatives. A CBA cannot redesign the force, but it can suggest ways in which certain functions can be strengthened to eliminate gaps and point out mismatches between force availability and force needs. Finally, note that operating the programmed force under substantially different organizational or personnel assumptions will generally require the development of an alternative CONOPS to support those assumptions.

g. The next step in the CBA is to assess general approaches for materiel capability solutions which can wholly or partially mitigate any of the capability gaps. Materiel approaches tend to fall into three broad types (listed in terms of fielding uncertainty from low to high):

(1) development and fielding of IS (or similar technologies with high obsolescence rates) or evolution of the capabilities of existing IS;

(2) evolution of existing systems with significant capability improvement (this may include replacing an existing system with a newer more capable system, or simple recapitalization); and

(3) transformational systems that differ significantly in form, function, operation, and capabilities from existing systems and offer significant improvement over current capabilities or transform how we accomplish the mission.

h. The final step in the CBA is to offer recommendations for the most appropriate approach(es) to close or mitigate capability gaps and reduce operational risk.

i. Upon completion, the Sponsor provides results of the CBA, or other studies intended to identify capability requirements and associated capability gaps, to the studies repository for visibility and to support development of JCIDS documents.

j. As CBAs serve as a means for Sponsors to identify their capability requirements and associated capability gaps as well as to identify other information required to be submitted in JCIDS documents, the conduct of the CBA and approval of the results are at the discretion of the Sponsor.

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ENCLOSURE B

DOCUMENT GENERATION

1. Overview

a. JCIDS documents serve as a means for Sponsors to submit capability requirements and capability gaps identified via any of the processes outlined in Enclosure A, along with other relevant information, for review and validation.

b. The five categories of JCIDS documents are:

(1) ICD (includes the IS ICD variant). An ICD documents one or more new capability requirements and associated capability gaps. The ICD also documents the intent to partially or wholly address identified capability gap(s) with a non-materiel solution, materiel solution, or some combination of the two.

(2) Joint DCR. A Joint DCR documents the intent to partially or wholly address an identified capability requirement and associated capability gap with a non-materiel solution, recommending changes to existing capabilities of the Joint force in one or more of the eight DOTmLPF-P areas. In cases where a Joint DCR is not generated from an ICD, it also serves to document the new capability requirements and associated capability gaps being addressed.

(3) CDD. A CDD defines authoritative, measurable, and testable parameters across one or more increments of a materiel capability solution, by setting KPPs, KSAs, and additional performance attributes necessary for the acquisition community to design and propose systems and to establish programmatic baselines.

(4) CPD. A CPD provides authoritative, testable capability requirements, in terms of KPPs, KSAs, and additional performance attributes, for the Production and Deployment (P&D) phase of an acquisition program, and is an entrance criteria item necessary for each MS C acquisition decision.

(5) UON (including JUON and JEON). A UON, JUON, or JEON documents capability requirements driven by ongoing or anticipated contingency operations, which if left unfulfilled, would result in capability gaps leading to unacceptable loss of life or critical mission failure. Expedited staffing and validation procedures are used to facilitate timely validation and initiation of rapid acquisition efforts.

c. Typical document sequences are outlined in Figure B-1.

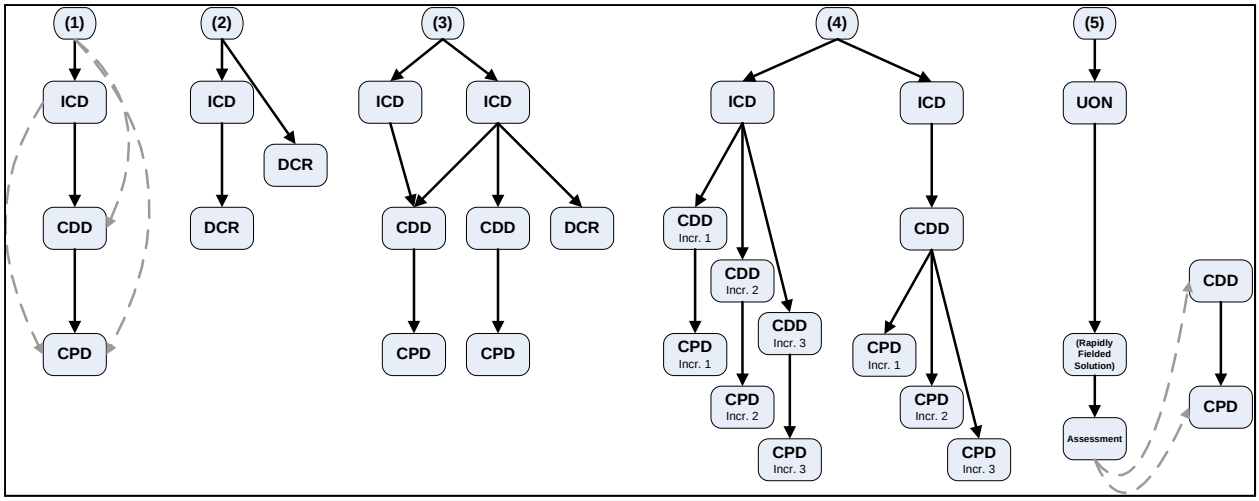

Figure B-1. Typical Document Sequences

(1) The ICD is the most common starting point for new capability requirements.

(a) Once validated, the ICD typically leads to an AoA or similar review and then the CDD and CPD for development of a materiel capability solution.

(b) An ICD may lead directly to a CPD, if capability requirements and associated capability gaps can be satisfied through Commercial Off-the-Shelf (COTS), Government Off-the-Shelf (GOTS), or Non-Developmental Items (NDI), with no significant development or integration efforts.

(c) In certain cases, a CDD or CPD may be generated without an associated ICD – typically when there has already been demonstration of the capability solution in an operational environment, such as from successful JUONs or JEONs transitioning for enduring use, successful JCTDs or Experiments, or any similar activity with a positive assessment of operational utility. In these cases, the CDD and CPD must capture the intent of the ICD in terms of the capability requirements and capability gaps to be satisfied, in addition to the solution related details of the CDD and CPD. See the ICD waiver request process in Enclosure C.

(2) Joint DCRs may be generated in two different ways:

(a) A Joint DCR may be generated from a validated ICD as a non-materiel solution to a previously validated capability requirement and associated capability gap, or as a complement to a materiel capability solution which will be developed through the acquisition process. Additional DOTmLPF-P analysis may be completed as required to fully define the Joint DCR.

(b) A Joint DCR may be generated without an associated ICD if non-materiel approaches appear to be the most viable solution for identified capability requirements. An ICD waiver request is not required for Joint DCRs without associated ICDs.

(3) Combining and splitting document sequences

(a) One ICD may lead to the creation of multiple CDDs and/or Joint DCRs, each of which contribute to satisfying the capability requirements and closing or mitigating capability gaps identified in the ICD

(b) Two or more ICDs may lead to the creation of a single CDD, where the capability solution to be developed satisfies more than one capability requirement and closes or mitigates more than one associated capability gap..

(4) Related document increments

(a) An ICD may lead to the creation of multiple CDDs for a System of Systems (SoS) or Family of Systems (FoS) approach.

1. A single CDD may address a SoS, where a set of systems are integrated to deliver a unique capability solution.

2. Separate CDDs are required for each system in a FoS, where similar capabilities are provided through different approaches to achieve similar or complementary effects.

(b) A CDD may lead to the creation of one or more CPDs. Multiple CPDs from a single CDD are typical for incremental development efforts.

(5) Urgent/Emergent Documents

(a) UONs (including JUONs and JEONs) are validated through a streamlined staffing process to allow rapid acquisition efforts to field a capability solution in an expedited timeframe. CDDs and CPDs are not required for solutions to UONs, and various considerations of the deliberate acquisition process are streamlined or bypassed in the interest of timeliness.

(b) Following the fielding of solutions to UONs, JUONs, and JEONs, the requirement Sponsor completes an assessment of operational utility to provide essential feedback for continuing rapid acquisition efforts and/or to identify the need for long term sustainment of the capability solution through the deliberate acquisition process.

(c) For capability solutions transitioning to the deliberate acquisition process, the UON, JUON, or JEON, along with the associated assessment, serves as part of the source material for the Sponsor to generate the CDD or CPD. A CDD is the typical transition document for capability solutions requiring further development of the rapidly fielded capability solution for long term use. A CPD is a typical transition document for capability solutions which will be produced and sustained in the same form as the rapidly fielded capability solution.

2. General Document Guidance

a. JCIDS Documents are not written to take the place of a RFF or RFC where materiel capabilities already exist, but GFM decisions make the capabilities otherwise unavailable to the Sponsor.

(1) In cases where capabilities do not exist in sufficient quantities, a Sponsor may submit a Joint DCR to document the requirement for increased quantities of existing capability solutions.

(2) For capability solutions fielded in response to a UON, JUON, or JEON, a Sponsor may submit an update to the UON, JUON or JEON rather than a DCR to request additional quantities, unless the capability has transitioned to the deliberate requirements and acquisition processes.

b. When conducting analyses and drafting JCIDS documents, Sponsors will consider both non-materiel and materiel solutions, and to the maximum extent possible, recommend approaches in the preferred order listed below, starting with non-materiel approaches and then in accordance with reference mm. If applicable, Sponsors will explain in the document summary why less preferred approaches were recommended.

(1) Implementation of DOTmLPF-P changes which do not require development and procurement of a new materiel capability solution.

(2) Procurement or modification of commercially available products, services, and technologies, from domestic or international sources, or the development of dual-use technologies.

(3) The additional production or modification of previously-developed U.S. and/or Allied military or Interagency systems or equipment.

(4) A cooperative development program with one or more Allied nations.

(5) A new, joint, DOD Component or Interagency development program.

(6) A new DOD Component-unique development program.

c. In accordance with reference nn, documents for capability requirements that are funded primarily or wholly with National Intelligence Program (NIP) funding, and are related to Major System Acquisitions (MSA), or are programs designated by the Secretary of Defense (SecDef) or the Director of National Intelligence (DNI) to be of special interest, will be developed, reviewed, and validated in accordance with the Intelligence Community Capability Requirements (ICCR) process outlined in reference oo. Documents for capability requirements that are funded primarily or wholly with Military Intelligence Program (MIP) funding, and are related to MSA, or are programs designated by the SecDef or the DNI to be of special interest, will be developed, reviewed, and validated under the JCIDS process outlined in this Manual and in reference b. Enclosure C outlines the common Gatekeeper function for both ICCR and JCIDS documents.

c. Classification and Releasability

(1) All documents will display appropriate classification and releasability markings (overall and portion).

(2) Sponsors are responsible for decisions regarding release of documents to industry.

(3) Sponsors will ensure documents advocating creation of Joint/Combined acquisition programs with Allies/Partner Nations are releasable in full to the nation(s) concerned.

(4) See Enclosure C for impacts of classification on procedures for document submission to the Gatekeeper.

d. Document Submission and Validation

(1) Documents are submitted to the Gatekeeper for review in accordance with Enclosure C, and then staffed and validated according to one of the staffing processes outlined in Enclosures D and E.

(2) JCIDS documents not yet validated may not be used to support validation efforts of other documents.

e. Revisions. Updates to previously validated documents shall be resubmitted to the Gatekeeper for appropriate action in accordance with Enclosure C. If re-accomplishment of staffing and validation is warranted, the staffing path will be determined by the type of document, the scope of the change, and the previously assigned Joint Staffing Designator (JSD) or former Joint Potential Designator (JPD). See Enclosure C for details of JSDs.

(1) For revisions to validated documents, the Gatekeeper forwards them to the appropriate lead FCBs for assessment.

(a) If the lead FCB Chair determines the revision affects one or more Joint endorsements, internal joint staffing is conducted to secure the endorsement.

(b) If the lead FCB Chair determines the revisions warrant revalidation, such as for changes to Key Performance Parameters (KPPs), the submission is treated as a new, un-validated document based on its latest JSD.

(2) A revised validation memorandum is returned to the Sponsor once the revalidation has been completed or the original validation reconfirmed.

3. CDTM Tool for Document Creation

a. Overview

(1) CDTM is a web-based tool used by authors and reviewers of capabilities documents. The software presents a series of "wizard" screens that guide the user through capability document creation, step-by-step. CDTM enables customized workflow and access control for documents in work, and does not allow users access to the data until the document owner grants permission. At any time, the software will automatically create a formatted Microsoft Word version of the capability document for review purposes.

(2) When a Sponsor determines a document is ready for review and validation, CDTM automates transfer of a Microsoft Word version of the document to the KM/DS system for further processing. After document transfer, the document data is exposed to all CDTM users through search functionality.

(3) CDTM is accessed through a web browser using the Non-secure Internet Protocol Router Network (NIPRNET) or SECRET Internet Protocol Router Network (SIPRNET) addresses in reference e.

b. Applicability

(1) The CDTM tool is provided as a means to generate and submit ICDs, CDDs, CPDs, and Joint DCRs to the KM/DS system.

(2) The following exceptions apply:

(a) Creation of IS ICDs. The use of CDTM for drafting and submission of IS ICDs is recommended. CDTM is in the process of being

updated to allow for IS ICD-specific formatting. Until full functionality for IS ICDs is obtained, Sponsors will add IS equity using the ICD document option in CDTM as described in the IS ICD section of this Enclosure.

(b) Creation of documents classified above SECRET. CDTM is not used for the drafting and submission of documents classified above the level of SECRET. These documents are submitted via hard copy to the Gatekeeper.

(c) Creation of JUONs or JEONs. CDTM is not used for the drafting and submission of JUONs and JEONs. These documents are submitted via memo to the Gatekeeper.

(d) Creation of Service, CCMD, or Component UONs. CDTM is not used for the drafting and submission of Service, CCMD, or Component UONs. These documents are submitted internally via processes defined in references o through u. These documents are only submitted to the KM/DS system for information purposes after validation.

(3) Updates of CDTM documents. When drafting updates to documents using CDTM, Sponsors must completely fill all necessary data fields in CDTM. Listing changed text alone without including all the text in a particular section of an existing document does not adequately populate the data model.

c. Authoritative Source. The CDTM tool will be updated to remain consistent with this Manual. In the event of any discrepancies between the Manual and the CDTM tool, the Manual is to be considered the authoritative source.

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4. ICD

a. Background

(1) An ICD supports the acquisition process at several points, including the MDD; the AoA or other analysis, as required; update of the DOD Enterprise Architecture, development of the solution architecture; the Technology Development Strategy (TDS); and the Milestone (MS) A acquisition decision.

(2) An ICD is not always required before creating successor documents – CDDs, CPDs, or Joint DCRs – if alternative studies or documentation sources make the ICD redundant. In cases where the Sponsor proposes to proceed directly to a successor document, the general content of the ICD, including capability requirement and capability gap tables, will be provided in the successor document.

b. Format

(1) Length. The body of an ICD – consisting of the seven primary sections and Appendix A – shall be no more than 10 pages long.

(2) Cover Page. The cover page of an ICD shall include the following information.

(a) Classification.

(b) Title, starting with the phrase "Initial Capabilities Document for…".

(c) Sponsoring organization, and signature authority who authorized the submittal into JCIDS. New ICDs, and modifications to previously validated ICDs, must be endorsed by the Service, CCMD, or other DOD Component J8 equivalent or higher.

(d) Date submitted by the Sponsoring organization.

(e) Primary and secondary POCs for the document Sponsor. Include name, title/rank, phone, and both NIPRNET and SIPRNET email addresses. POCs must have completed the appropriate level of Requirements Management Certification Training (RMCT) in accordance with Enclosure H.

(f) Proposed validation authority.

(g) Proposed MDA.

(h) Proposed JSD.

(3) Executive Summary. An executive summary, not to exceed 1 page, shall follow the cover page and precede the body of the ICD.

c. Section Descriptions. The ICD shall have the following seven sections, followed by four appendices.

(1) CONOPS Summary. Describe the relevant parts of the Joint Concepts, CONOPS, and/or Unified Command Plan (UCP)-assigned mission to which the capability requirements identified in the ICD contribute; what operational outcomes they provide; what effects they must produce to achieve those outcomes; how they complement the integrated joint/multinational warfighting force; and what enabling capabilities are required to achieve the desired operational outcomes.

(2) JCAs. Cite the applicable Tier I and II JCAs from reference hh, and the range of military operations being addressed. Identify the timeframe under consideration for initial operational capability based on input from supported/supporting CCMDs and the acquisition community. Also identify the relevant ISCs, if any, applicable to this ICD.

(3) Capability Requirements

(a) Describe the capability requirements as identified during the CBA or other study. Explain why the capability requirements are essential to the Sponsor in order to achieve assigned goals and objectives. This discussion should also relate required capabilities to the Concept, CONOPS, or UCP assigned mission. Address compliance with any applicable DOD, joint, national, and international policies and regulations.

(b) Define capability requirements in the lexicon established for the JCAs, the tasks, standards, and conditions from the applicable Universal Joint Tasks or DOD Component equivalents, the relevant range of military operations, and the timeframe under consideration.

(c) Describe capability requirements in terms of the required operational attributes with appropriate qualitative parameters and metrics, e.g., outcomes, time, distance, effect (including scale), obstacles to be overcome, and supportability. Indicate the minimum value below which the capability will no longer be effective. “TBD” values are not allowed. Appendix A to this Enclosure provides examples of appropriate attributes which should be used where applicable, although other attributes may be identified and used when those in Appendix A to this Enclosure are not appropriate.

d) Capability requirements should be general enough so as not to prejudice decisions in favor of a particular capability solution but specific enough to evaluate alternative approaches to achieve the capability.

(e) Capability requirements shown in this section need only be those requirements which have associated gaps or overlaps/redundancies discussed in the next section. The difference between the capability requirements in this section and the current force capabilities are the basis for defining the capability gaps. This does not preclude the inclusion of capability requirements which are currently satisfied by capability solutions and do not have associated capability gaps, if inclusion of such capability requirements provides necessary context or serves other purposes. (i.e. – a capability requirement might be satisfied by a fielded capability solution, but the Sponsor proposes a much more cost effective capability solution or a consolidation of multiple independent solutions into a single common capability solution.)

(f) Provide a summary of the relationship between JCAs, capability requirements and relevant attributes, and their associated metrics and minimum values in a table as shown in Table B-1.

Tier 1 & Tier 2 JCAs	**Capability Requirements**	**Metrics**	**Minimum Value**
	Capability 1		
	Attribute 1.1	Description	Value (no TBDs)
	Attribute 1.n	Description	Value (no TBDs)
	Capability 2		
	Attribute 2.1	Description	Value (no TBDs)
	Attribute 2.n	Description	Value (no TBDs)
	Capability n		
	Attribute n.n	Description	Value (no TBDs)

Table B-1. Example Capability Requirement Table

(4) Capability Gaps and Overlaps/Redundancies

(a) Describe the capability gaps or overlaps in terms of the difference between the capability requirements enumerated in the previous section and the performance levels of current and projected force capabilities. Identify those capability requirements for which there exist overlaps or redundancies. Include considerations of capabilities in other DOD Components, Interagency, and Allied/Partner nations. Assess whether the overlap is advisable for operational redundancy, or if the overlap should be evaluated as potential tradeoffs to satisfy identified capability gaps.

(b) Specify the focus for each identified capability gap, in terms of proficiency in existing capability (cannot accomplish the mission to the level

expected), or sufficiency in existing capability (do not have enough capability to be effective).

(c) Summarize capability gaps as shown in Table B-2.

Capability Requirements			**Current Capabilities** (If applicable)	
Capability Requirements	**Metrics**	**Minimum Value**	**Metrics**	**Value**
Capability 1				
Attribute 1.1	Description	Value (no TBDs)	Description	Value (no TBDs)
Attribute 1.n	Description	Value (no TBDs)	Description	Value (no TBDs)
Capability 2				
Attribute 2.1	Description	Value (no TBDs)	Description	Value (no TBDs)
Attribute 2.n	Description	Value (no TBDs)	Description	Value (no TBDs)
Capability n				
Attribute n.n	Description	Value (no TBDs)	Description	Value (no TBDs)

Table B-2. Example Capability Gap Table

(5) Threat and Operational Environment. Summarize the current and projected threat capabilities (lethal and non-lethal) to be countered.

(a) Reference the current DIA-validated threat documents and DOD Component intelligence production center-approved products or data used to support the CBA.

(b) During staffing, documents with JSDs of JROC Interest, Joint Capabilities Board (JCB) Interest, and Joint Integration will be subject to Defense Warning Office (DWO) threat validation in accordance with reference pp.

(6) Assessment of Non-Materiel Approaches. Summarize the changes to DOTmLPF-P considered during the CBA or other analysis that would satisfy the capability gaps in part or in whole. Include consideration of capabilities in Allied/partner nations, the interagency, and other DOD Components.

(7) Final Recommendations

(a) Identify DOTmLPF-P recommendations to be considered as part of a materiel solution.

(b) Identify DOTmLPF-P recommendations to be considered independent of a materiel solution.

(c) For all capability requirements that cannot be met using non-materiel approaches, make specific recommendations on the type of materiel

approach preferred to close each capability gap, which may be used by the MDA to adjust the scope of the AoA:

1. Enhancement of an Existing System. Enhancing an existing system includes development and fielding of IS, development of similar technologies to address high obsolescence rates, or evolution of the system through significant capability improvements.

2. Replacement or Recapitalization of an Existing System. ICDs will describe a plan to retire (sunset) an existing system as the new capability or version of legacy system is brought into service, and whether quantities should be reduced based on the increase in capability for the new system.

3. Development of a New Capability Solution. New capability solutions differ significantly in form, function, and operation from existing capability solutions. They may address gaps associated with a new mission, or describe breakout capabilities that offer significant improvement over current capabilities, possibly transforming how we accomplish an existing mission.

d. Appendices

(1) Appendix A: Architecture Data. Include the link(s) to the required architecture data identified in Table B-F-3 in accordance with references j and qq. Other than the OV-1, do not include the diagrams themselves unless specifically referenced for illustration purposes elsewhere in the body of the ICD.

(2) Appendix B: References.

(3) Appendix C: Acronym List.

(4) Appendix D: Glossary.

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5. IS ICD

a. Background

(1) IS ICDs implement the "IT Box" model, outlined in this section, to provide IS programs greater flexibility to incorporate evolving technologies, and achieve faster responses from requirement validation processes than is typical for other kinds of materiel or non-materiel solutions.

(2) The "IT Box" model calls for fewer iterations of validating documents through the JCIDS process by describing the overall IS program in the IS ICD, and delegating validation of detailed follow-on requirement and solution oversight to a flag-level organization other than the JROC or JCB.

(a) Using identified measures of effectiveness (MOEs), initial minimums are used instead of thresholds/objectives, allowing for rapid capability development within specified funding limits.

(b) CDDs and CPDs are not required as successor documents to an IS ICD. An example of Sponsor documents used for managing follow-on efforts is provided later in this section, but is not intended to limit potential flexibilities provided by the IS ICD, or a previously validated ICD or CDD which the validation authority has approved for transition to the IT Box model.

(3) IS ICDs are used to document capability requirements and associated capability gaps where the intended solution approach involves research, development, and acquisition of applications system software, and the projected software development costs exceed $15 million. IS with development costs less than $15 million are not subject to JCIDS process.

(a) It is not intended to be used for software embedded as a subset of a capability solution developed under other validated documents.

(b) All hardware associated with an IS ICD is COTS/GOTS, and hardware development is restricted to that necessary for system integration, system enhancements, and hardware refresh due to obsolescence.

(4) Efforts in an IS ICD may include:

(a) The procurement or modification of commercially available products and technologies from domestic or international sources, or the development of dual-use technologies.

1. COTS/GOTS software, and associated hardware, without modification.

2. Commercial capability solutions with integrated, DOD-specific performance characteristics/standards.

(b) The additional production or modification of previously-developed U.S. and/or Allied military or Interagency systems or equipment. Increases in quantities of unmodified existing systems may be accomplished without validation of new documents.

(c) Development, integration, and acquisition of customized application software.

(5) Sponsors shall use the IS ICD format when applicable for JROC Interest and JCB Interest documents drafted after the effective date of this Manual. Sponsors are encouraged to use and validate IS ICDs for situations where the Sponsor is the validation authority.

(a) For existing programs that have validated ICDs or CDDs, but want to transition to the IT Box model, an amendment to the existing document and revalidation, documented in a new JROC Memorandum (JROCM), is necessary to delegate JROC or JCB requirements oversight authority.

(b) Defense Business Systems capabilities which are defined and acquired in accordance with reference dd, are not required to use the IT Box model or IS ICD document format.

(6) Revalidation. IS ICDs require revalidation if the Sponsor proposes to:

(a) Add new capability requirements beyond the scope of the validated IS ICD.

(b) Increase programmed development and integration funding for a MAIS program by 10% or more compared with the desired level of funding identified in the IS ICD.

(7) Biennial FCB Review. For all IS programs with a valid IS ICD, the lead FCB shall receive a brief every second year following the validation. The lead FCB will determine if the JROC or JCB should review the following briefing items, and will make appropriate recommendations for action.

(a) Progress in delivering capability solutions within the required timeframe and available funding.

(b) Compliance with applicable enterprise architecture and data standards.

(c) Other items identified by the IS ICD validation

b. Format

(1) Length. The body of an IS ICD – consisting of the seven primary sections and Appendix A – shall be no more than 10 pages long.

(2) Cover Page. The cover page for an IS ICD shall be the same as for a regular ICD except that the title will begin with the phrase "Information Systems Initial Capabilities Document for…"

(3) Executive Summary. Identify the ICD as an IS ICD. Briefly discuss the four sides of the IT Box, illustrated in Figure B-2, naming the oversight body, the proposed capability requirements being sought, and the total estimated costs. With the additional content required to describe the IT Box construct, the executive summary for an IS ICD may be two pages in length.

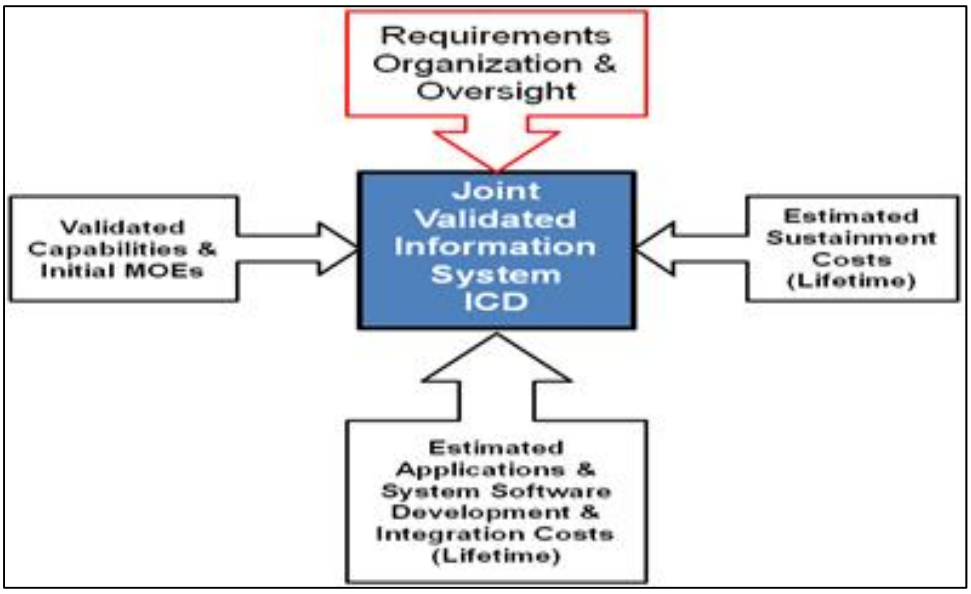

Figure B-2. Components of the "IT Box" model in IS ICDs

c. Section Descriptions. The body of an IS ICD differs only in one section. See the standard ICD section for content of the unchanged sections.

(1) Capability Gaps and Overlaps or Redundancies (ICD Section 4)

(a) Identify the flag-level oversight body, the chair of that body, and the organizations represented on the body being proposed to receive delegated requirements oversight duties.

(b) Define the proposed capability requirements and initial minimum levels in terms of measures of effectiveness (MOEs). Also define capability gaps in terms of the difference between the proposed capability requirements and similar existing capabilities, if any.

(c) Show estimated sustainment costs over the life cycle of the program. Break out costs into annual estimates.

(d) Estimate development and integration costs for the lifetime of the program. Break out costs into annual estimates.

	FY xx (e.g. 12)	**FY xx (e.g. 13)**	**FY xx (e.g. 14)**	**FY xx (e.g. 15)**	**FY xx (e.g. 16)**	**FY xx (e.g. 17)**	**FYDP Total**	**Life Cycle Cost**
Development & Integration Costs								
Sustainment Costs								

Table B-3. Example Cost Summary Table for IS ICDs

d. Mandatory Appendices. The mandatory appendices for an IS ICD are the same as for a regular ICD.

e. Example of managing an IS program using an IS ICD

(1) As the standard CDD and CPD documents are not typically required, an IS ICD provides Sponsors the flexibility manage IS programs with alternate documents and validation processes as necessary, as long as the program remains within the boundaries of the validated IS ICD and any additional guidance provided by the delegated validation authority.

(2) The following example of documents used for managing follow-on efforts are intended to be illustrative, and are not intended to limit potential flexibilities provided by the IS ICD, or a previously validated ICD or CDD which the validation authority has approved for transition to the IT Box model.

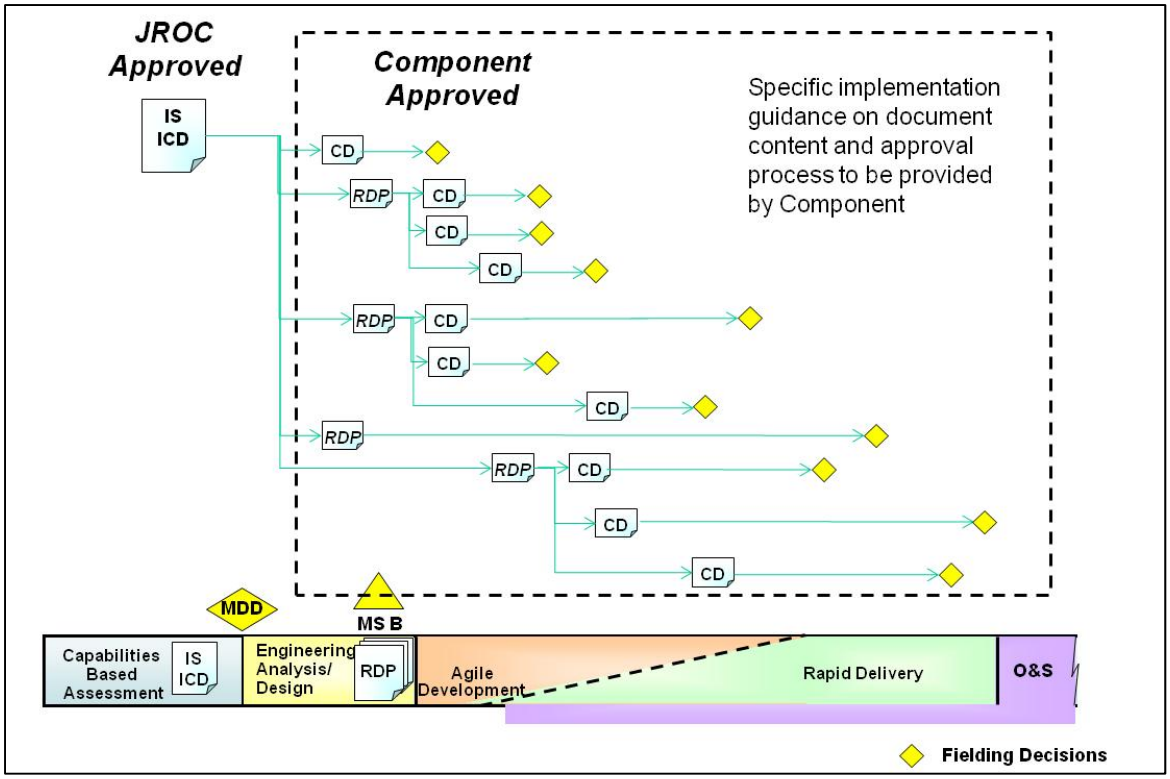

Figure B-3. Example of IS ICD Follow-on Documents

(3) For the purpose of this example two document types have been created and illustrated in Figure B-3. The Requirements Definition Package (RDP) and the Capability Drop (CD). Actual names, content and approval process are to be determined by the delegated validation authority.

(4) The RDP is a first level decomposition of one or more capability requirements in the IS ICD, and is co-developed between the operational user (or representative) and the program office. One or more RDPs together would represent the total set of capability solutions developed to satisfy the capability requirements in the IS ICD.

(a) The RDP would identify the KPPs (including the NR-KPP), Key System Attributes (KSAs), and/or additional performance paramenters as necessary to scope and cost a specific solution implementation. The RDP may also identify non-materiel changes that need to be implemented to fully realize the IS capability. The RDP would be supported by an Information Support Plan (ISP), submitted separately to DOD CIO for certification purposes, in accordance with reference rr. This would be the equivalent of a CDD as defined in the typical JCIDS process, and would be approved by the delegated validation authority identified in the IS ICD.

(b) A draft RDP could be used before validation to support MS A decisions for IS technology/prototyping efforts. The RDP would be submitted

to the delegated validation authority for validation ahead of a MS B decision. Following validation, the RDP would be posted to the KM/DS system for information purposes and for visibility into the appropriate FCB portfolio.

(c) The RDP can then be used in multiple ways. It can be used to initiate an IS program to develop, test, and deliver the full capability defined in the RDP. It can also be used as a basis for defining multiple drops of incremental capabilities such as “apps” or “widgets” which could be documented in something like a CD.

(d) If an IS program has a projected cost such that it is designated an MDAP, the requirements document must be written as a CDD and approved by the JROC to comply with statute.

(5) The CD could be a much lower level document to specify the detailed characteristics of a “widget” or “app” necessary for partial deployment of the capability solution. It could be developed through a rapid prototyping effort with the user to ensure it meets their needs. A CD could be developed directly from the definitions in the ICD in the event of a more urgent need for the capability. More commonly, multiple CDs would be derived from an RDP to deliver all of the capabilities defined in the RDP.

(a) The CD should include information such as a detailed technical description of the capabilities provided by a “widget” or “app” that can be developed and fielded within a short period of time, along with specific technical performance requirements. If not already covered by the ISP approved for the RDP, the CD is supported by a separately submitted ISP for certification purposes in accordance with reference rr.

(b) The approval of CDs would most likely be delegated to a lower level requirements authority as determined by the RDP authority to ensure timely decision making.

(6) Deployment decisions are made whenever the product - whether from an RDP or a CD - is ready for deployment to the user.

6. Joint DCR

a. Background

(1) Joint DCRs provide a means of documenting and validating non-materiel capability solutions as an alternative to, or complement of, materiel capability solutions.

(2) In cases where a Joint DCR is generated without a preceding ICD, the Joint DCR must include appropriate detail of an ICD with respect to the identified capability requirements and associated capability gaps. For example, the capability requirement and capability gap tables for ICDs, illustrated in Tables B-1 and B-2, and any associated narrative must be added to Section 4 of the Joint DCR. Add other information that would normally be in an ICD as required to support the changes proposed in the Joint DCR. An ICD waiver is not required prior to generating a Joint DCR without a preceding ICD.

(3) Joint DOTmLPF-P Functional Process Owners (FPOs). FPOs are designated by the CJCS for each of the DOTmLPF-P areas, and are responsible for their respective joint functional processes and overseeing implementation of the recommended changes from Joint DCRs. FPOs provide advice to Sponsors of Joint DCRs and assessment of their specific functional process during their review of proposed Joint DCRs. They also support the GO/FO Integration Group and the JCB/JROC in executing their integration and implementation responsibilities for validated Joint DCRs. The FPOs are listed in Table B-4.

DOTmLPF-P Area	Functional Process Owner
Joint Doctrine	Joint Staff/J-7
Joint Organizations	Joint Staff/J-8 (with J-1 & 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
Joint Policy	Joint Staff/J-5

Table B-4. Joint DOTmLPF-P FPOs

b. Format

(1) Length. The body of a Joint DCR – consisting of the nine primary sections and Appendix A – shall be no more than 30 pages long.

(2) Cover Page. The cover page of a Joint DCR shall include the following information.

(a) Classification.

(b) Title, starting with the phrase “Joint DOTmLPF-P Change Recommendation for…”.

(c) Sponsoring organization, and signature authority who authorized the submittal into JCIDS. New Joint DCRs, and modifications to previously validated Joint DCRs, must be endorsed by the Service, CCMD, or other DOD Component J8 equivalent or higher.

(d) Date submitted by the Sponsoring organization.

(e) Primary and secondary POCs for the document Sponsor. Include name, title/rank, phone, and both NIPRNET and SIPRNET email addresses. POCs must have completed the appropriate level of RMCT in accordance with Enclosure H.

(f) Proposed lead organization. Defines a single organization, which may be different from the document Sponsor, which will have responsibility for coordinating the proposed changes, and if applicable, the activities of other Office(s) of Primary Responsibility (OPR) assigned to specific recommendations within the Joint DCR.

(3) Executive Summary. An executive summary, not to exceed 1 page, shall follow the cover page and precede the body of the Joint DCR.

c. Section Descriptions. The Joint DCR shall have the following nine sections, followed by four appendices.

(1) Purpose. Provide a brief statement regarding the concept(s) addressed in this document.

(2) Background. Frame the discussion by providing context. Briefly discuss the existing concepts, technologies, procedures, etc., to be influenced by the proposal in terms of opportunities to enhance or improve joint and/or multinational warfighting capabilities. Within the discussion, include the following, as applicable:

(a) References to latest DOD strategic guidance or plans, such as NMS, DPG, Strategic Planning Guidance, Joint Intelligence Guidance, DOD Component investment plans, etc.

(b) The military task from the UJTL associated with the proposal. See reference ii.

(c) JROCMs relevant to the proposal, including linkage to JROC-approved operational concept(s) and architectures.

(d) CCMD IPLs, joint monthly readiness reviews, quarterly reports to the Secretary of Defense, approved JCIDS documents, etc., that validate the requirement to change joint DOTmLPF-P.

(e) Approved CONOPS relevant to the proposal, including linkage to architectures where appropriate.

(f) Other key decisions or events.

(3) Description. Describe specifics of the proposal; address "who," "what," "when," "how," and "why." Clearly state, in terms of major objectives, what the recommendation is intended to accomplish and how it could widen the qualitative superiority of joint forces over potential adversaries, how it satisfies a validated capability requirement and reduces or eliminates an associated capability gap, or otherwise enhances joint and multinational warfighting capabilities. Include discussion of the following, as applicable:

(a) Changes to tactics, techniques, and procedures and/or implications on the safe use of the proposed non-materiel solution in the proposed operating environment.

(b) Forces and systems affected and impact on interoperability.

(c) Projected threat environment based on a DIA-validated threat. During staffing, Joint DCRs will be subject to Defense Warning Office (DWO) threat validation in accordance with reference pp.

(d) If recommendation includes incorporating future technology (materiel component), include brief discussion of the maturity of the science and technology area(s) or future systems involved and a risk assessment of the approach.

(4) Analysis Process. Provide a summary of the analysis methodology that led to these recommendations, including:

(a) Research, experimentation, and/or analysis plan.

(b) Brief summary of the analytic techniques employed (i.e., modeling and simulation, statistical sampling, experimentation, real-world event lessons learned) to produce findings.

(c) Discussion of facts and circumstances relating to adjustments made during execution of the approved research, experimentation, and/or analysis plan (if applicable).

(d) Identify capability requirements and capability gaps addressed by the Joint DCR. If the Joint DCR is derived from a validated ICD, provide the reference. If the Joint DCR is not derived from a validated ICD, provide Tables B-1 and B-2 as discussed in the ICD section of this Enclosure.

(5) Joint DCR Findings and Proposed Implementation Plan. Use this section to describe research, experimentation, and analysis findings, and the recommended implementation plan. List recommendations and implementation plans in terms of each applicable joint DOTmLPF-P element.

(a) For each recommendation, include a discussion of improvement and/or benefit to joint and multinational warfighting as well as joint and allied/partner nation interoperability.

(b) For each recommendation, identify a proposed OPR and provide rationale.

(c) Proposed implementation timeframe:

1. Discussion of relationships between recommendations and associated implementation timing (i.e., a joint organizational change has implications for a personnel change, which influences training plans).

2. Resources required to implement (total resources, including additional research, hardware, DOD manpower, test range time, contractor support, etc.).

3. Rough-order-of-magnitude total cost to implement the proposed change as shown in Table B-5, including cost by FY and type of funding required (also, note paragraph 6, "Constraints," below).

Resources Required	**FY xx (e.g. 12)**	**FY xx (e.g. 13)**	**FY xx (e.g. 14)**	**FY xx (e.g. 15)**	**FY xx (e.g. 16)**	**FY xx (e.g. 17)**	**FYDP Total**
O&M							
RDT&E							
Procurement							
Personnel							
MILCON							
Total Funding							

Table B-5. Summary of Resources Required

(6) Constraints. Identify current or projected resource constraints with respect to implementing any element of the recommended findings in paragraph 5 above.

(a) Highlight any proposed concept not currently addressed within the DOD program.

(b) If specific recommendation is, for example, a change to joint training, and sufficient resources are already programmed to cover the total cost of implementing the proposal including course development, instructor staffing and/or billets, instructor education, training facilities, reading materials, hardware, and mock-ups, etc., then do not include in paragraph 6.

(c) If there are additional un-programmed costs associated with implementing any of the recommendations, include in paragraph 6.

(7) Policy

(a) Identify any DOD policy issues that would prevent the effective implementation of the recommended changes and the reason the proposed changes cannot comply with it.

(b) Provide proposed changes to the policy, and identify other potential implications from the proposed changes in policy.

(8) Issues

(a) Identify any issues (DOD treaties, protocols, agreements, legal issues, DOD roles, missions and functions, interagency, multinational, etc.) associated with implementing any element of the recommendations. Include reference(s) to the specific policy or other issuance(s) which is(are) the issue.

(b) Provide proposed resolution.

(c) Identify interoperability implications.

(d) Identify any unresolved Joint Staff, OSD, CCMD, Service, or other DOD Component issues resulting from staffing and/or coordinating the recommendation document.

(9) Recommendation Summary

(a) Recap the major findings and proposed implementation recommendations to advance future joint warfighting capabilities.

(b) List alternative approaches and/or options to implement and resource recommendations. Alternative approaches are particularly appropriate when comprehensive Joint DCRs are submitted with significant resource implications, but Joint DCRs without alternatives may be submitted when only one approach is appropriate or practical. As appropriate,

alternatives will be tailored to the specific Joint DCRs and focused on optimizing, for example:

1. Scope

a. All forces and/or systems.

b. All forces and/or systems within a particular specialty.

c. Specific performance of a subset of forces within a specialty or system.

2. Implementation schedule

a. Maximum impact achieved at earliest practical date.

b. Impact achieved in phases.

3. Additional level of resources required (combined scope and schedule)

a. Comprehensive approach.

b. Moderate.

c. Limited.

4. Recommended changes to DOD policy to effect the changes

(c) Include a brief discussion of advantages and risks and/or disadvantages of each alternative.

d. Appendices

(1) Appendix A. This appendix may be omitted if the NR-KPP is not applicable to the changes recommended in the Joint DCR. Include the link(s) to the architecture repository for the NR KPP architecture data identified in Table B-F-3. Other than the OV-1, do not include the NR KPP architecture data unless specifically referenced for illustration purposes elsewhere in the body of the Joint DCR.

(2) Appendix B. References.

(3) Appendix C. Acronym List.

(4) Appendix D. Glossary.

7. CDD

a. Background

(1) The CDD is the Sponsor's primary means of proposing refined capability requirements, in the form of KPPs, KSAs, and additional performance attributes, associated with a particular solution intended to wholly or partially satisfy validated capability requirements and close or mitigate associated capability gaps. CDD KPPs must be inserted verbatim into the performance section of the acquisition strategy and the Acquisition Program Baseline (APB).

(2) In certain cases, a CDD may be generated without a preceding ICD upon approval of an ICD waiver request in accordance with Enclosure C. The CDD must include appropriate detail of an ICD with respect to the identified capability requirements and associated capability gaps. For example, the capability requirement and capability gap tables for ICDs, illustrated in Tables B-1 and B-2, and any associated narrative must be added to Section 1 of the CDD. Add other information that would normally be in an ICD as required to support the documentation in the CDD.

(3) Development of a CDD is guided by the ICD (or approved substitute), the reference architecture (i.e. – DOD Information Enterprise Architecture (IEA); IC; Joint Architecture Reference Model (JARM); Joint Information Environment Operational Reference Model (JIE ORA); Service, CCMD, or other DOD Component Enterprise Architecture; etc.) and the solution architecture; the AoA, the TDS, and the results of competitive prototyping and preliminary design.

(4) A draft CDD, not submitted to the Gatekeeper for staffing and validation, is required to inform the TDS and Request for Proposals (RFP) for the Technology Development Phase following the MS A acquisition decision.

(5) A CDD is not submitted for staffing and validation until the AoA or alternative supporting analysis is completed, provided to the studies repository, and reviewed by the validation authority. If an AoA has not been conducted, the sponsor will explain, in Section 2 of the CDD, why an AoA was not justified.

(6) A validated CDD is a prerequisite to the pre-EMD review leading up to the MS B acquisition decision. The requirement for a validated CDD at MS B also applies to IS programs that are designated as MDAPs.

(a) A CDD will be validated prior to program initiation for shipbuilding programs.

(b) If a CDD describes a capability solution with a significant IS component, the validation of the CDD may permit alternate document formats

and delegated approval authority, illustrated in the IS ICD section, for flexibility in managing IS capability development under the CDD.

(c) If sufficient information, from an AoA or other analyses, is available to define KPPs and KSAs for multiple capability increments, one validated CDD may support the MS B acquisition decisions of all the described increments. The CDD must clearly articulate if each increment has its own unique set of KPPs/KSAs, or if the KPPs/KSAs listed apply to all increments.

(7) No additional changes or amendments will be made to previously validated Operational Requirements Documents (ORDs), unless minor changes are approved by the Gatekeeper and Lead FCB. To facilitate amendments or changes, Sponsors shall transcribe ORD content, and any previously validated changes or amendments, into applicable sections of a CDD or CPD for staffing and validation. The original ORD will be submitted as an attachment to the document in the KM/DS system, unless the ORD is already resident in the KM/DS system.

(8) Sponsors of rapidly fielded capability solutions transitioning from the Urgent/Emergent to the Deliberate requirements and acquisition processes will submit a CDD for validation ahead of a MS B decision if additional development is necessary for the enduring capability solution. The supporting assessment of operational utility for the rapidly fielded capability solution will be provided to the studies repository prior to submitting the associated CDD for staffing and validation.

(9) CDD Updates

(a) Updates to a CDD are required if changes to the KPPs are made after validation, or if changes are made in the Joint Concepts, CONOPS, or DOD Enterprise Architecture and solution architecture, which affect the capability requirements and solution documented in the CDD.

(b) The CDD may be amended in lieu of a CPD to support MS C acquisition decisions for each successive capability increment so long as the amendments do not adversely affect the acquisition of the previously validated capability increments. To use a CDD in lieu of CPD, the Sponsor will resubmit the CDD in accordance with the steps outlined earlier in this Enclosure.

(c) The Sponsor will review the AoA for continuing relevance corresponding to each updated JCIDS document, and the AoA will be updated or a new AoA initiated if a CDD update invalidates the previous AoA.

(d) If the CDD describes more than one capability increment, it is refined/updated as needed before the MS B decision for each increment to incorporate the results of the activities during the acquisition phase (i.e., cost,

schedule and performance tradeoffs, testing, and lessons learned from previously fielded capability increments).

(e) Updates to previously validated CDDs using the "IT Box" model are made to the CDD and revalidated as appropriate. Any ICD supporting a valid IT Box CDD does not need to be updated to become an IS ICD.

b. Format

(1) Length. The body of a CDD – consisting of the 16 primary sections and Appendix A – shall be no more than 45 pages long.

(2) Cover Page. The cover page of a CDD shall include the following information.

(a) Classification.

(b) Title, starting with the phrase "Capability Development Document for…".

(c) Sponsoring organization, and signature authority who authorized the submittal into JCIDS. New CDDs, and modifications to previously validated CDDs, must be endorsed by the Service, CCMD, or other DOD Component J8 equivalent or higher.

(d) Date submitted by the Sponsoring organization.

(e) Primary and secondary POCs for the document Sponsor. Include name, title/rank, phone, and both NIPRNET and SIPRNET email addresses. POCs must have completed the appropriate level of RMCT in accordance with Enclosure H.

(f) Proposed validation authority.

(g) Proposed MDA.

(h) Proposed JSD.

(i) Proposed Acquisition Category (ACAT).

(3) Executive Summary. An executive summary, not to exceed 1 page, shall follow the cover page and precede the body of the CDD.

c. Section Descriptions. The CDD shall have the following 16 sections, followed by four appendices.

(1) Capability Discussion. Cite validated ICDs or other applicable source documents. Provide an overview of the capability requirements and associated capability gaps in terms of relevant range of military operations and the timeframe under consideration. Update the ICD description of the expected joint and multinational mission environments. Describe the system capability and how it relates to the validated capability requirements defined in the ICD or substitute documents. Define the capabilities provided by the system using the same lexicon used to describe the capability requirements and capability gaps in the ICD. Discuss how the capability increments defined in the CDD contribute to satisfying the validated capability requirements and closing associated capability gaps.

(a) Discuss the operating environment of the system. Address how the capability solution will be employed on the battlefield and where it will be employed and/or based.

(b) If the CDD is part of an FoS or SoS solution, identify the source ICD and related CDDs and CPDs. Discuss any integrating DOTmLPF-P changes or required synchronization for SoS solutions in Section 7.

(2) Analysis Summary. Summarize all analyses (i.e., AoA and/or other supporting analysis) conducted to determine the system attributes and to identify the KPPs/KSAs. Include the alternatives, objective, criteria, assumptions, recommendation, and conclusion.

(3) CONOPS Summary. Describe the relevant part of the Joint Concepts, CONOPS, and/or UCP-assigned mission to which the capability solution contributes, what operational outcomes it provides, what effects it must produce to achieve those outcomes, how it complements the integrated joint warfighting force, and what enabling capabilities or capability solutions are required to achieve its desired operational outcomes along with any interdependencies between existing and planned capability solutions.

(4) Threat Summary

(a) Summarize the projected threat environment and the specific threat capabilities to be countered to ensure the capability gap can be mitigated. Include the nature of the threat, threat tactics, and projected threat capabilities (both lethal and nonlethal) over time.

(b) Programs designated as ACAT I/ID (or potential ACAT I/ID) must incorporate DIA-validated threat references. All other programs may use DOD Component intelligence center-approved products and data. Summarize the organizational resources that provided threat support to capability development efforts.

(c) During staffing, documents with JSDs of JROC Interest, JCB Interest, and Joint Integration will be subject to Defense Warning Office (DWO) threat validation in accordance with reference pp.

(5) Program Summary. Provide a summary of the overall program strategy for reaching full capability and the relationship between the increments addressed by the current CDD. Carefully address the considerations (e.g., technologies to be developed, other systems in the FoS or SoS, inactivation of legacy systems) that are driving the incremental delivery plan. For follow-on increments, discuss any updates to the program strategy to reflect lessons learned from previous increments, changes in Joint Concepts, CONOPS, or the DOD Information Enterprise Architecture and the solution architecture or other pertinent information. Identify known external dependencies and associated risks. In addition, provide an update on the acquisition status of previous increments. For IS that do not have an IS ICD, identify the organization or body that will provide oversight and management of the delivery of the capability solutions.

(6) Development KPPs, KSAs, and additional performance attributes

(a) Sponsors must consider the six "required" KPPs detailed in Appendix A to this Enclosure. Not all KPPs will be applicable to every requirement, so Sponsors may either use the listed KPPs or articulate why a particular KPP is not applicable. For each applicable KPP, provide specific attributes related to the KPP which must be met rather than a generic statement that the endorsements for the KPPs will be obtained.

(b) Sponsors should avoid over specification of KPPs/KSAs, or inclusion of technical specifications as KPPs/KSAs, unless essential to addressing a specific capability gap.

(c) Provide a description of each attribute and list each attribute in a separate numbered subparagraph. Correlate each KPP and KSA to the capability requirements defined in the ICD and the Tier 1 and 2 JCAs to which they contribute directly. Where applicable, also correlate to the UJTL tasks to which each contributes. Include rationale for each, in terms of ISCs supported or as being derived from other requirements, and cite any existing analytic references. When appropriate, the description should include any unique operating environments for the system. Provide any additional information that the Program Manager (PM) should consider. If the CDD is describing a SoS solution, it must describe the attributes for the SoS level of performance and any unique attributes for each of the constituent systems. If the CDD is describing multiple increments, clearly identify which attributes apply to each increment.

(d) Present each attribute in output-oriented, measurable, and testable terms. For each attribute, provide a development threshold value representing the value below which performance is unacceptable. Provide objective values for attributes when the increased performance level provides significant increases in operational utility. If the objective and the threshold values are the same, indicate this by including the statement "Threshold = Objective." The PM may use this information to provide incentives for the developing contractor or to weigh capability tradeoffs between threshold and objective values. When there are multiple capability increments and the threshold changes between increments, clearly identify the threshold for each increment. For CDDs that describe IS and use the IT Box model, list the Initial Minimums in lieu of Threshold values and do not list Objective values.

(e) Provide tables summarizing specified KPPs, KSAs, and additional performance attributes in threshold/objective format, as illustrated in Tables B-6 through B-8.

Tier 1 & Tier 2 JCAs	Key Performance Parameter	Development Threshold	Development Objective
	KPP 1	Value	Value
	KPP 2	Value	Value
	KPP 3	Value	Value

Table B-6. Example KPP Table

Tier 1 & Tier 2 JCAs	Key System Attribute	Development Threshold	Development Objective
	KSA 1	Value	Value
	KSA 2	Value	Value
	KSA 3	Value	Value

Table B-7. Example KSA Table

Additional Performance Attribute	Development Threshold	Development Objective
Attribute 1	Value	Value
Attribute 2	Value	Value

Table B-8. Example Additional Performance Attribute Table

(7) SoS Synchronization. In SoS capability solutions, the CDD Sponsor is responsible for ensuring that related capability solutions, identified in other CDDs and CPDs, remain compatible and that the development is synchronized. These related capability solutions should tie to a common ICD, set of ICDs, or approved substitute(s). In cases where development of SoS capability solutions involves multiple solution Sponsors, a lead Sponsor should be identified to coordinate efforts across organizations.

(a) Discuss the relationship of the system described in this CDD to other systems contributing to satisfying the capability requirements. Discuss

any overarching DOTmLPF-P changes needed to make the SoS an effective military capability solution in Section 14.

(b) Provide a table that briefly describes the contribution this CDD makes to the fulfillment of capability requirements and closing of capability gaps described in the applicable ICDs, and the relationships to other CDDs and CPDs that also support these capability requirements, as illustrated in Table B-9. Review all related ICDs, CDDs, and CPDs for applicability to the SoS addressed by this CDD. Also identify the primary JCAs (Tier1 & 2) supported by this CDD. If the CDD is not based on validated capability requirements from an ICD, identify the validated source document(s).

Capability Requirement	**CDD Contribution**	**Related CDDs**	**Related CPDs**	**Tier 1 & Tier 2 JCAs**
Capability 1 from ICD 1	Brief description of the contribution	CDD Title	CPD Title	
Other Joint validated source document	Brief description of the contribution	CDD Title	CPD Title	

Table B-9. Supported ICDs and Related CDD/CPDs

(8) Spectrum Requirements. To obtain NR KPP certification, all IS must comply with the spectrum management and electromagnetic environment effects (E3) direction. The spectrum supportability process includes joint, DOD, national and international policies and procedures for the management and use of the electromagnetic spectrum. The spectrum supportability process is detailed in reference ss and details on compliance available at reference qq.

(9) Intelligence Supportability

(a) Identify, as specifically as possible, all projected need for intelligence support throughout the expected acquisition life cycle in accordance with reference pp.

(b) During staffing, documents with JSDs of JROC Interest, JCB Interest, and Joint Integration will be subject to Joint Staff J-2 intelligence certification in accordance with reference pp.

(10) Weapon Safety Assurance. In accordance with reference tt, all munitions capable of being handled, transported, used, or stored by any Service in joint warfighting environments are considered to be joint weapons and require a joint weapons safety review in accordance with Appendix A to Enclosure D of this Manual and references tt through vv. The joint or multinational mission environment attributes and performance parameters must be addressed as the basis for the weapon safety endorsement. Identify, as specifically as possible, everything necessary to provide for safe weapon storage, handling, transportation, or use by joint forces throughout the weapon

lifecycle, to include performance and descriptive, qualitative, or quantitative attributes. The CDD will address the following:

(a) System Safety. Confirm the establishment of a System Safety Program (SSP) for the life cycle of the weapon system in accordance with references mm and ww, Reference xx provides risk acceptance criteria for high, serious, medium, and low risks.

(b) Insensitive Munitions. Confirm capability of resisting insensitive munitions (IM) threats per the established standardized IM protocols in accordance with references yy and zz. If munitions cannot meet all IM criteria, provide details of and rationale for proposed variances, for consideration during review for weapon safety endorsement.

(c) Fuze Safety. Confirm compliance with the provisions of references aaa through ccc.

(d) Explosive Ordnance Disposal. If munitions contain or deliver energetic material, confirm coordination with the Explosive Ordnance Disposal (EOD) research, development, test and evaluation (RDT&E) authority in accordance with reference ddd.

(e) Demilitarization/Disposal. If the munitions contain or deliver energetic material, confirm that the weapon system has a Demilitarization and Disposal plan IAW with treaties, international agreements, Federal and state regulations and laws, and reference xx.

(f) Laser Safety. If the munitions contain lasers, confirm that engineering design, protective equipment, administrative controls, or a combination thereof have been implemented in accordance with reference eee, to protect and mitigate the risk to personnel from laser radiation to an acceptable level.

(11) Technology Readiness Assessment. Discuss the program's critical technologies in accordance with reference fff, specifically identifying any critical technologies linked to the program's KPPs.

(12) Assets Necessary to Achieve IOC. Describe the types and initial quantities of assets required to attain IOC. Identify the operational units (including other DOD Components or government agencies, if appropriate) that will employ the capability, and define the initial asset quantities (including initial spares and training and support equipment, if appropriate) needed to achieve IOC.

(13) IOC and FOC Schedule Definitions. Define what actions, when complete, will constitute attainment of IOC and FOC of the current increment.

Specify the target date for IOC and FOC attainment based on discussions and coordination between the requirement Sponsor and the acquisition community.

(14) DOTmLPF-P Considerations. DOTmLPF-P changes should be considered from two perspectives: 1) Enabling - changes that enable the implementation, operations and support of the specific system; 2) Integrating – changes that must be made to support integration of this system with existing capability solutions. Clearly differentiate which kind of DOTmLPF-P changes are necessary.

(a) Discuss any additional DOTmLPF-P implications associated with fielding the system, to include those approaches that would impact CONOPS or plans within a CCMD Area of Responsibility (AOR). Describe the implications for all recommended changes.

(b) Highlight the status (timing and funding) of the other DOTmLPF-P considerations.

(c) Describe, at an appropriate level of detail, the key logistics criteria, such as system reliability, maintainability, transportability, and supportability that will help minimize the system's logistics footprint, enhance mobility, and reduce the total ownership cost. Also discuss energy demand impacts, including fuel and/or electrical power, if applicable.

(d) Detail any basing needs (forward and main operating bases, institutional training base, and depot requirements).

(e) Specify facility, shelter, supporting infrastructure, and Environment, Safety, and Occupational Health (ESOH) asset requirements, and the associated costs, availability, and acquisition MS schedule(s) related to supporting the system.

(f) Describe how the systems will be moved either to or within the theater, and identify any lift constraints.

(15) Other System Attributes. Address any other attributes not previously identified, especially those that tend to be design, cost, or risk drivers, including but not limited to the following:

(a) Anti-tamper, embedded instrumentation, electronic attack (EA), and wartime reserve mode (WARM) requirements.

(b) Human Systems Integration (HSI) considerations that have a major impact on system effectiveness and suitability.

(c) Natural environmental factors (climatic design type, terrain, meteorological and oceanographic factors, impacts and effects).

(d) Expected level of capability provided in various mission environments, if degraded relative to KPPs, KSAs, and additional performance attributes articulated in Section 6 of the CDD.. Include applicable safety parameters, such as those related to system, nuclear, explosive, and flight safety.

(e) Physical and operational security needs.

(f) Weather, oceanographic and astro-geophysical support needs throughout the program's expected life cycle, including data accuracy and forecast needs.

(g) For intelligence, surveillance, and reconnaissance (ISR) platforms, issues relating to information security and protection standards.

(h) For systems that may be used in combined allied and coalition operations, issues relating to applicable US-ratified international standardization agreements which will be incorporated in the derived system requirements, in accordance with references ggg and hhh.

(i) Whether or not the system must be able to survive and operate through chemical, biological, radiological, and nuclear (CBRN) environments in accordance with reference iii. In the event the mission requires CBRN survivability, as defined in reference iii, consider elevating this attribute to be a KPP. If the system is covered under reference jjj, nuclear survivability must be designated a KPP. As applicable, address operational and maintenance issues related to ensuring continuing hardness against CBRN environments.

(16) Program Affordability. Show total cost as shown in Table B-10, including cost by FY and type of funding based upon threshold levels of performance. Show cost factors used to determine ACAT level, per reference xx. The affordability determination is made as part of the cost assessment in the analysis supporting the CDD development. Cost will be included in the CDD as life-cycle cost or, if available, total ownership cost, and will include all associated DOTmLPF-P costs. Inclusion of cost allows the Sponsor to emphasize affordability in the proposed program. Cite applicable cost analyses conducted to date. For IS, identify the programmed funding by year for the software development and sustainment and for hardware refresh and integration, and provide rationale for the level of funding required.

Resources Required	FY xx (e.g. 12)	FY xx (e.g. 13)	FY xx (e.g. 14)	FY xx (e.g. 15)	FY xx (e.g. 16)	FY xx (e.g. 17)	FYDP Total	Life Cycle Cost
O&M								
RDT&E								
Procurement								
Personnel								
MILCON								
Total Funding								

Table B-10. Summary of Resources Required

d. Appendices

(1) Appendix A: Net-Ready KPP (NR KPP) Architecture Data. Include the link(s) to the architecture repository for the required NR KPP architecture data identified in Table B-F-3. Other than the OV-1, do not include the NR KPP architecture data unless specifically referenced for illustration purposes elsewhere in the body of the CDD.

(2) Appendix B: References.

(3) Appendix C: Acronym List.

(4) Appendix D: Glossary.

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8. CPD

a. Background

(1) The CPD is the Sponsor's primary means of proposing the operational performance attributes at a system level necessary for the acquisition community to produce a single increment of a specific system. It presents performance attributes, including KPPs and KSAs, to guide the P&D of the current increment. If the plan requires a single step to satisfy the full capability requirement, the KPPs and KSAs will apply to the entire system(s). Each increment must provide a safe, operationally effective, suitable, and useful capability solution in the intended environment, commensurate with the investment.

(a) The most significant difference between the CDD and the CPD is the refinement of threshold and objective values for KSAs, KPPs, and additional performance attributes previously identified in the CDD or other source document. CPD KPPs must be inserted verbatim into the performance section of the acquisition strategy and the Acquisition Program Baseline (APB). The Systems Engineering Plan (SEP) then documents Technical Performance Measures (TPMs) which are necessary to achieve the KPPs and KSAs. Metrics, criteria and desired test and evaluation strategy developed for the Test and Evaluation Master Plan (TEMP) and refined during the Engineering and Manufacturing Development (EMD) phase are updated as necessary to support MS C and initial operational test and evaluation. The metrics and criteria are based on validated performance criteria in the CPD. Each production threshold listed in the CPD depicts the minimum performance that the PM is expected to deliver for an increment's IOC or FOC based on the system design subsequent to the CDR.

(b) A Sponsor may resubmit a CDD for revalidation in lieu of a CPD in cases where the CDD accurately reflects the performance of the system to be delivered at low-rate initial production. To use a CDD in lieu of CPD, the Sponsor will resubmit the CDD in accordance with the steps outlined earlier in this Enclosure.

(c) Because a CPD is finalized after critical design review (CDR) and after the majority of capability development, it is normally not appropriate to introduce new capability requirements at this point. New capability requirements should be included in the next increment in an evolutionary program or in a future modification or upgrade if no additional increments are planned.

(2) In certain cases, a CPD may be generated without a preceding ICD and/or CDD upon approval of an ICD and/or CDD waiver request in accordance with Enclosure C. The CPD must include appropriate detail of an

ICD and/or CDD with respect to the identified capability requirements and associated capability gaps. For example, the capability requirement and capability gap tables for ICDs, illustrated in Tables B-1 and B-2, and any associated narrative must be added to Section 1 of the CPD. Add other information that would normally be in an ICD and/or CDD as required to support the documentation in the CPD.

(3) The development of the CPD is guided by applicable ICDs, the CDD; the reference architecture (i.e. – DOD IEA; IC; JARM; JIE ORA; Service, CCMD, or other DOD Component Enterprise Architecture; etc.) and the solution architecture; AoA and/or supporting analytical results; developmental and operational test results; and the CDR.

(4) CPD Development and Documentation

(a) A CPD typically applies to a single increment of a single system or SoS. When the CPD is part of an FoS approach, the CPD will identify the validated ICD or other source document, AoA and/or supporting analyses results, and any related CDDs and/or CPDs that are necessary to deliver the required capability solution and to allow the required program synchronization. There may be cases where the validation authority decides it is appropriate to use a combined CPD to describe closely interdependent systems that provide the desired capability solution.

(b) The CPD Sponsor will apply lessons learned during the EMD phase, lessons learned from previous increments, risk reduction activities, assessments (for JCTDs, qualified prototype projects, and quick-reaction technology projects), experimentation, test and evaluation, modeling and simulation, capability and schedule tradeoffs and affordability analysis in the delivery of the capability solution. The KPPs previously defined in a CDD may be refined (with a rationale provided) and should be tailored to the proposed system to be procured. (e.g., range, probability of kill, platform survivability, etc.)

(c) The CPD Sponsor, in coordination and collaboration with the appropriate DOD components, agencies, and FCB will prepare the CPD. Continuous collaboration with the systems acquisition PM is essential. The CPD Sponsor also will collaborate with Sponsors of related CDDs and/or CPDs that are required in FoS and SoS solutions, particularly those generated from a common ICD.

(5) Sponsors of rapidly fielded capability solutions transitioning from the Urgent/Emergent to the Deliberate requirements and acquisition processes will submit a CPD for validation ahead of a MS C decision if additional development is not necessary for production and sustainment of the enduring capability solution. The supporting assessement for the rapidly fielded

capability solution will be provided to the studies repository prior to submitting the associated CPD for staffing and validation.

b. Format

(1) Length. The body of a CPD – consisting of the 16 primary sections and Appendix A – shall be no more than 40 pages long.

(2) Cover Page. The cover page of a CPD shall include the following information.

(a) Classification.

(b) Title, starting with the phrase "Capability Production Document for…".

(c) Sponsoring organization, and signature authority who authorized the submittal into JCIDS. New CPDs, and modifications to previously validated CPDs, must be endorsed by the Service, CCMD, or other DOD Component J8 equivalent or higher.

(d) Date submitted by the Sponsoring organization.

(e) Primary and secondary POCs for the document Sponsor. Include name, title/rank, phone, and both NIPRNET and SIPRNET email addresses. POCs must have completed the appropriate level of RMCT in accordance with Enclosure H.

(f) Proposed validation authority.

(g) Proposed MDA.

(h) Proposed JSD.

(i) Proposed ACAT.

(3) Executive Summary. An executive summary, not to exceed 1 page, shall follow the cover page and precede the body of the CPD.

c. Section Descriptions. The CPD shall have the following 16 sections, followed by four appendices.

(1) Capability Discussion. Cite validated ICDs, CDDs and/or other applicable source documents. Provide an overview of the capability requirements and associated capability gaps in terms of relevant range of military operations and timeframe under consideration. Update the ICD or

CDD description of the expected joint mission environments. Describe the system capability and how it relates to the validated capability requirements defined in the ICD or substitute documents. Define the capabilities provided by the system using the same lexicon used to describe the capability requirements and capability gaps in the ICD. Discuss how the capability increment defined in the CPD contributes to satisfying the validated capability requirements and closing associated capability gaps.

(a) Discuss the operating environment of the system. Address how the capability solution will be employed on the battlefield and where it will be employed and/or based.

(b) If the CPD is part of an FoS or SoS solution, identify the source ICD and related CDDs and CPDs. Discuss any integrating DOTmLPF-P changes or required synchronization for SoS solutions in Section 7.

(2) Analysis Summary. Summarize all analyses (i.e., AoA and/or other support analysis) conducted to determine the system attributes and to identify the KPPs. Include the alternatives, objective, the criteria, assumptions, recommendation, and conclusion.

(3) CONOPS Summary. Describe the relevant part of the Joint Concepts, CONOPS, and/or UCP-assigned mission to which the capability solution contributes, what operational outcomes it provides, what effects it must produce to achieve those outcomes, how it complements the integrated joint warfighting force, and what enabling capabilities are required to achieve its desired operational outcomes along with any interdependencies between existing and planned capability solutions.

(4) Threat Summary

(a) Summarize the projected threat environment and the specific threat capabilities to be countered to ensure that the capability gap can be mitigated. Include the nature of the threat, threat tactics, and projected threat capabilities (both lethal and nonlethal) over time.

(b) Programs designated as ACAT I/ID (or potential ACAT I/ID) must incorporate DIA-validated threat references. All other programs may use DOD Component intelligence center-approved products and data. Summarize the organizational resources that provided threat support to capability development efforts.

(c) During staffing, documents with JSDs of JROC Interest, JCB Interest, and Joint Integration will be subject to Defense Warning Office (DWO) threat validation in accordance with reference pp.

(5) Program Summary. Provide a summary of the overall program strategy for reaching full capability and the relationship between the production increment addressed by the current CPD and any other increments of the program.

(6) Production KPPs, KSAs, and additional performance attributes

(a) Sponsors must consider the six "required" KPPs detailed in Appendix A to this Enclosure, unless found to be not applicable in the validated CDD. For each applicable KPP, provide specific attributes related to the KPP which must be met rather than a generic statement that the endorsements for the KPPs will be obtained.

(b) As in the CDD, care must be taken to stabilize and not over specify attributes in the CPD. Only the most significant items should be designated as performance attributes with threshold and objective values. To provide lower level performance attributes, the PM will develop details in other acquisition documentation.

(c) Provide a description for each attribute and list each attribute in a separately numbered subparagraph. Correlate each KPP and KSA to the Tier 1 and 2 JCAs to which the KPPs and KSAs contribute directly. Include rationale for each, in terms of ISCs supported or as being derived from other requirements, and cite any analytic references. When appropriate, the description should include any unique operating environments for the system. If the CPD is part of a SoS solution, it must describe the attributes for the SoS level of performance and any unique attributes for each of the constituent systems.

(d) Present each attribute in output-oriented, measurable, and testable terms. For each attribute, provide a production threshold value representing the value below which performance is unacceptable. Provide objective values for attributes when the increased performance level provides significant increases in operational utility. If the threshold and objective values are the same, indicate this by including the statement "threshold = objective." The PM may use this information to provide incentives for the production contractor to enhance performance through production improvements.

(e) Provide tables summarizing specified KPPs, KSAs and additional performance attributes in threshold/objective format, as illustrated in Tables B-11 through B-13.

Tier 1 & 2 JCA	Key Performance Parameter	Production Threshold	Production Objective
	KPP 1	Value	Value
	KPP 2	Value	Value
	KPP 3	Value	Value

Table B-11. Example KPP Table

Tier 1 & 2 JCA	Key System Attributes	Production Threshold	Production Objective
	KSA 1	Value	Value
	KSA 2	Value	Value
	KSA 3	Value	Value

Table B-12. Example KSA Table

Additional Performance Attribute	Production Threshold	Production Objective
Attribute 1	Value	Value
Attribute 2	Value	Value
Attribute 3	Value	Value

Table B-13. Example Additional Performance Attribute Table

(7) SoS Synchronization. In SoS capability solutions, the CPD Sponsor is responsible for ensuring that related capability solutions, specified in other CDDs and CPDs, remain compatible and that the development is synchronized. These related capability solutions should tie to a common ICD, set of ICDs, or approved substitute(s). In cases where development of SoS capability solutions involves multiple solution Sponsors, a lead Sponsor should be identified to coordinate efforts across organizations.

(a) Discuss the relationship of the system described in this CPD to other systems contributing to satisfying the capability requirements. Discuss any overarching DOTmLPF-P changes needed to make the SoS an effective military capability solution in Section 14.

(b) Provide a table that briefly describes the contribution this CPD makes to the fulfillment of capability requirements and closing of capability gaps described in the applicable ICDs, and the relationships to other CDDs and CPDs that also support these capability requirements, as illustrated in Table B-14. Review all related ICDs, CDDs, and CPDs for applicability to the SoS addressed by this CPD. Also identify the primary JCAs (Tier 1 and 2) supported by this CPD. If the CPD is not based on validated capability requirements from an ICD, identify the validated source document.

Capability Requirement	CPD Contribution	Related CDDs	Related CPDs	Tier 1 & Tier 2 JCAs
ICD Capability Description #1 (Source Doc)	Brief Description of the Contribution	CDD Title	CPD Title	
ICD Capability Description #2 (Source Doc)	Brief Description of the Contribution	CDD Title	CPD Title	
Other JROC validated source document	Brief Description of the Contribution	CDD Title	CPD Title	

Table B-14. Supported ICDs and Related CDDs or CPDs

(8) Spectrum Requirements. To obtain NR KPP certification, all IS must comply with the spectrum management and electromagnetic environment effects (E3) direction. The spectrum supportability process includes joint, DOD, national and international policies and procedures for the management and use of the electromagnetic spectrum. The spectrum supportability process is detailed in reference ss and details on compliance available at reference qq.

(9) Intelligence Supportability

(a) Identify, as specifically as possible, all projected requirements for intelligence support throughout the expected acquisition life cycle in accordance with the format and content prescribed by reference pp.

(b) During staffing, documents with JSDs of JROC Interest, JCB Interest, and Joint Integration will be subject to Joint Staff J-2 intelligence certification in accordance with reference pp.

(10) Weapon Safety Assurance. In accordance with reference tt, all munitions capable of being handled, transported, used, or stored by any Service in joint warfighting environments are considered to be joint weapons and require a joint weapons safety review in accordance with Appendix A to Enclosure D of this Manual and references tt through vv. The joint or multinational mission environment attributes and performance parameters must be addressed as the basis for the weapon safety endorsement. Identify, as specifically as possible, everything necessary to provide for safe weapon storage, handling, transportation, or use by joint forces throughout the weapon lifecycle, to include performance and descriptive, qualitative, or quantitative attributes. The CPD will address the following:

(a) System Safety. Confirm the establishment of a System Safety Program (SSP) for the life cycle of the weapon system in accordance with references mm and ww, Reference xx provides risk acceptance criteria for high, serious, medium, and low risks.

(b) Insensitive Munitions. Confirm capability of resisting insensitive munitions (IM) threats per the established standardized IM protocols in accordance with references yy and zz. If munitions cannot meet all IM criteria, provide details of and rationale for proposed variances, for consideration during review for weapon safety endorsement.

(c) Fuze Safety. Confirm compliance with the provisions of references aaa through ccc.

(d) Explosive Ordnance Disposal. If munitions contain or deliver energetic material, confirm coordination with the Explosive Ordnance Disposal (EOD) research, development, test and evaluation (RDT&E) authority in accordance with reference ddd.

(e) Demilitarization/Disposal. If the munitions contain or deliver energetic material, confirm that the weapon system has a Demilitarization and Disposal plan IAW with treaties, international agreements, Federal and state regulations and laws, and reference xx.

(f) Laser Safety. If the munitions contain lasers, confirm that engineering design, protective equipment, administrative controls, or a combination thereof have been implemented in accordance with reference eee, to protect and mitigate the risk to personnel from laser radiation to an acceptable level.

(11) Technology and Manufacturing Readiness. Discuss the program's critical technologies in accordance with reference fff, specifically identifying any critical technologies linked to the program's KPPs. Identify any manufacturing readiness challenges linked to the program's KPPs as cited in the Acquisition Strategy.

(12) Assets Required to Achieve FOC. Describe the types and quantities of assets required to attain FOC. Identify the operational units (including other DOD Components or government agencies, if appropriate) that will employ the capability solution and define the asset quantities (including spares, training, and support equipment, if appropriate) required to achieve FOC.

(13) IOC and FOC Schedule Definitions. Define what actions, when complete, will constitute attainment of IOC and FOC of the current increment. Specify the target date for IOC and FOC attainment based on discussions and coordination between the requirement Sponsor and the acquisition community.

(14) Other DOTmLPF-P Considerations. DOTmLPF-P changes should be considered from two perspectives: 1) Enabling – changes that enable the

implementation, operations and support of the specific system; 2) Integrating – changes that must be made to support integration of this system with existing capability solutions. Clearly differentiate which kind of DOTmLPF-P changes are necessary.

(a) Discuss any additional DOTmLPF-P implications associated with fielding the system, to include those approaches that would impact CONOPS or plans within a CCMD AOR. Describe the implications for all recommended changes.

(b) Highlight the status (timing and funding) of the other DOTmLPF-P considerations.

(c) Describe, at an appropriate level of detail, the key logistics criteria, such as system reliability, maintainability, transportability, and supportability that will help minimize the system's logistics footprint, enhance mobility, and reduce the total ownership cost. Also discuss energy demand impacts, including fuel and/or electrical power, if applicable.

(d) Detail any basing needs (forward and main operating bases, institutional training base, and depot requirements).

(e) Specify facility, shelter, supporting infrastructure, and ESOH asset requirements, and the associated costs, availability, and acquisition MS schedule(s) related to supporting the system.

(f) Describe how the system will be moved either to or within the theater. Identify any lift constraints.

(15) Other System Attributes. Address any other attributes not previously identified, especially those that tend to be design, cost, or risk drivers, including but not limited to the following:

(a) Anti-tamper, embedded instrumentation, EA, and WARM requirements.

(b) HSI considerations that have a major impact on system effectiveness, suitability, and affordability.

(c) Natural environmental factors (climatic design type, terrain, meteorological and oceanographic factors, and impacts and effects).

(d) Expected level of capability provided in various mission environments, if degraded relative to KPPs, KSAs, and additional performance attributes articulated in Section 6 of the CPD. Include applicable safety

parameters, such as those related to system, nuclear, explosive, and flight safety.

(e) Physical and operational security needs.

(f) Weather, oceanographic and astro-geophysical support needs throughout the program's expected life cycle, including data accuracy and forecast needs.

(g) For ISR platforms, issues relating to information protection standards.

(h) For systems that may be used in combined allied and coalition operations, issues relating to the potentially applicable US-ratified international standardization agreements. Provide an initial indication of which ones will be incorporated in the derived system requirements, in accordance with references ggg and hhh.

(i) Whether or not the system must be able to survive and operate through CBRN environments in accordance with reference iii. In the event the mission requires CBRN survivability, as defined in reference iii, consider elevating this attribute to be a KPP. If the system is covered under reference jjj, nuclear survivability must be designated a KPP. As applicable, address operational and maintenance issues related to ensuring continuing hardness against CBRN environments.

(16) Program Affordability. Show total cost as shown in Table B-15, including cost by FY and type of funding based upon threshold levels of performance. Show cost factors used to determine ACAT level, per reference xx. The affordability determination is made as part of the cost assessment in the analysis supporting the CPD development, which may include updates to earlier cost analyses. Cost will be included in the CPD as life-cycle cost, or if available, total ownership cost, and will include all associated DOTmLPF-P costs. Inclusion of cost allows the Sponsor to emphasize affordability in the proposed program. Cite applicable cost analyses conducted to date.

Resources Required	**FY xx (e.g. 12)**	**FY xx (e.g. 13)**	**FY xx (e.g. 14)**	**FY xx (e.g. 15)**	**FY xx (e.g. 16)**	**FY xx (e.g. 17)**	**FYDP Total**	**Life Cycle Cost**
O&M								
RDT&E								
Procurement								
Personnel								
MILCON								
Total Funding								

Table B-15. Summary of Resources Required

d. Appendices

(1) Appendix A. Net-Ready KPP Architecture Data. Include the link(s) to the architecture repository for the required NR KPP architecture data identified in Table B-F-3. Other than the OV-1, do not include the NR KPP architecture data unless specifically referenced for illustration purposes elsewhere in the body of the CPD.

(2) Appendix B. References.

(3) Appendix C. Acronym List.

(4) Appendix D. Glossary.

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9. UON/JUON/JEON

a. Background

(1) Types of UONs

(a) DOD Component UONs are applicable to only one DOD Component and are driven by ongoing or anticipated contingency operations. DOD Component UONs are submitted, staffed, and validated in accordance with references o through u. After validation, DOD Component UONs are uploaded to the KM/DS system for information and visibility in the FCB portfolios.

(b) JUONs are UONs affecting two or more DOD Components and are driven by ongoing contingency operations. JUONs are submitted by CCMDs in accordance with this enclosure, and reviewed and validated in accordance with Enclosure E.

(c) JEONs are UONs affecting two or more DOD Components and are driven by anticipated contingency operations. JEONs are submitted by CCMDs in accordance with this Enclosure, and reviewed and validated in accordance with Enclosure E.

(2) Capability solutions for JUONs, JEONs, and DOD Component UONs do not require associated ICDs, CDDs, or CPDs for initial fielding, but may require appropriate CDDs or CPDs to support transition for sustainment and/or further development of capability solutions for enduring use.

(3) Capability requirements with anticipated development/fielding timeframes longer than 2 years for JUONs or 5 years for JEONs should not use a JUON or JEON to document and validate the capability requirement and associated gaps, but rather generate an ICD, CDD, or CPD for review and validation in the deliberate staffing process.

b. Format

(1) Length. JUONs and JEONs will be in memo format and generally not exceed 3 pages.

(2) Cover Page. JUONs and JEONs do not require a cover page.

c. Section Descriptions

(1) Title: (Unclassified version)

(2) CCMD Submitted by: (e.g., CENTCOM)

(3) Date submitted by the CCMD.

(4) CONOPS Summary. Provide a CONOPS for which the capabilities requested in the JUON/JEON contribute, including information regarding the coalition environment within which the capability solution will need to operate.

(5) Required Capability: Describe in detail the nature of the urgency and the operational impact, if not immediately resolved, in terms of critical mission failure or loss of life. Identify where the operational deficiency exists. Describe what capabilities are required, and whether they support a discrete operation, must be sustained for an extended period of time, or must be sustained until the end of the conflict. What is the target, threat or operational deficiency? What cannot be done without new or improved equipment or materiel? Include threshold/objective performance requirements for any key attributes. This description must also specify the latest acceptable date to address the capability requirements and capability gaps.

(6) Flexibility. In the event of technological or other challenges, indicate whether receiving a partial solution on schedule is preferred to a delayed solution which satisfies a greater portion of the capability requirement. Estimate acceptable percentages of reduced performance and/or acceptable delay timeframes.

(7) Mission and Threat Analysis: Describe the mission deficiency or capability gap. Indicate the initial operational capability requirement, desired date and any impacts to safety, survivability, personnel, training, logistics, communications, etc.

(8) Potential Non-Materiel Solutions: Describe any non-materiel options and alternatives that were considered. If applicable, discuss any market survey or similar related information developed by document Sponsor or during the validation process. If market research details are available, provide along with the JUON or JEON to facilitate reuse during rapid acquisition activities.

(9) Potential Materiel Solutions: If known, identify and discuss viable solutions – from US or Allied/Partner nation sources – that could improve operational capabilities or system performance.

(10) Required Quantities. For viable solutions, identify quantities required and distribution among applicable DoD Components. Include expected quantities required for spares and/or training activities.

(11) Constraints: Identify any known constraints that could inhibit satisfying the need -- such as arms control treaties, logistics support, transportation, manpower, training or non-military barriers.

(12) Primary and secondary POCs for the document Sponsor: Include name, title/rank, phone, and both NIPRNET and SIPRNET email addresses. POCs must have completed the appropriate level of RMCT in accordance with Enclosure H.

(13) Authorized by: Release authority's name, rank and title. New JUONs and JEONs, and modifications to the capability requirements in previously validated JUONs and JEONs, must be endorsed by the CCMD Commander, Deputy Commander, or Chief of Staff. Administrative modifications to previously validated JUONs or JEONs may be endorsed by the CCMD J8.

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APPENDIX A TO ENCLOSURE B

KEY PERFORMANCE PARAMETERS AND KEY SYSTEM ATTRIBUTES

1. Overview

a. KPPs. Performance attributes of a system considered critical to the development of an effective military capability. The number of KPPs identified by a Sponsor should be kept to a minimum to maintain program flexibility. Failure of a system to meet a validated KPP threshold/initial minimum rescinds the validation, brings the military utility of the associated system(s) into question, and may result in a reevaluation of the program or modification to production increments.

b. KSAs. Attributes or characteristics considered essential to achieving a balanced solution/approach to a system, but not critical enough to be designated a KPP. KSAs must be measurable, testable, and quantifiable. KSAs are specified by the Sponsor. The number of KSAs identified by a Sponsor should be kept to a minimum to maintain program flexibility.

2. Thresholds, Initial Minimums, and Objectives

a. KPPs and KSAs are expressed using a threshold/objective format, or as initial minimums for IS (IT Box model), and are included verbatim in the acquisition program baseline. They are measurable, testable, and quantifiable in a practical and timely manner to support follow-on decision making.

(1) Thresholds. The threshold value for an attribute is the minimum acceptable value considered achievable within the available cost, schedule, and technology at low-to-moderate risk. Performance below the threshold value is not operationally effective or suitable or may not provide an improvement over current capabilities.

(2) Initial Minimums. For IS (IT Box model), the initial minimum value takes the place of the threshold value. Initial minimums are used only for IS, and have no corresponding objective values.

(3) Objectives. The objective value for an attribute is applicable when a higher level of performance represents significant increase in operational utility. If applicable, the objective value is the desired operational goal achievable but at higher risk in cost, schedule, and technology. Performance above the objective does not justify additional expense.

b. Tradespace. The difference between threshold and objective values sets the trade space for meeting the thresholds of multiple KPPs and/or KSAs.

Advances in technology or changes in Joint Concepts may result in changes to threshold and objective values in future increments. As an attribute's values change (as a result of staffing discussions, between increments, or as part of the joint validation), the current and future documents will identify the previous values for reference purposes.

3. Consideration of "Mandatory" KPPs

a. Sponsors shall consider adding the following "mandatory" KPPs to all CDDs and CPDs. In cases where a KPP is not appropriate, the Sponsor shall justify why the KPP is not appropriate.

b. Assessing organizations will provide the lead FCB with an endorsement of the KPP, concurrence that the KPP is not required, or changes the Sponsor must make in order to receive the endorsement.

c. "Mandatory" KPPs

(1) Force Protection (FP). The FP KPP is applicable to all documents addressing a manned system, or system designed to enhance personnel survivability, when these systems will be used in an asymmetric threat environment. Although a FP KPP may include many of the same attributes as those that contribute to the Survivability KPP, the intent of the FP KPP is to address protection of the system operator or other personnel rather than protection of the system itself (Survivability). The Protection FCB will assess the FP KPP, or Sponsor justification of why the FP KPP is not applicable, for any document with a JSD of JROC or JCB Interest. Additional guidance on the FP KPP is provided in Appendix C to this Enclosure.

(2) Survivability. The Survivability KPP is applicable to all documents addressing a manned system, and may be applicable to documents addressing an unmanned system. The intent of the Survivability KPP includes reducing a system's likelihood of being engaged by hostile fire, through attributes such as speed, maneuverability, detectability, and countermeasures; reducing the system's vulnerability if hit by hostile fire, through attributes such as armor and redundancy of critical components; and allowing the system to survive and continue to operate in a CBRN environment, if required. The Protection FCB will assess the Survivability KPP, or Sponsor justification of why the Survivability KPP is not applicable, for any document with a JSD of JROC or JCB Interest. Additional guidance on the Survivability KPP is provided in Appendix D to this Enclosure.

(3) Sustainment. The Sustainment KPP and two supporting KSAs (Reliability, Operation and Support (O&S) Cost) are applicable to all documents addressing potential ACAT I programs. The intent of the Sustainment KPP is to

ensure that sustainment planning "upfront" enables the requirements and acquisition communities to provide a system with optimal availability and reliability to the warfighter at an affordable cost. The Logistics FCB, in coordination with the Joint Staff J-4 / Maintenance Division (J-4/MXD), will assess the Sustainment KPP, or Sponsor justification of why the Sustainment KPP is not applicable, for any document with a JSD of JROC or JCB Interest. Additional guidance on the Sustainment KPP is provided in Appendix E to this Enclosure and in reference kkk.

(4) Net-Ready (NR). The NR-KPP is applicable to all documents addressing IS and National Security Systems (NSS) used in the automated acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of DOD data or information regardless of classification or sensitivity. The NR-KPP is not applicable to documents addressing systems that do not communicate with external ones, including IS systems in accordance with references rr, ss, and lll. The intent of the NR KPP is to ensure new IS fits into the existing DOD architectures and infrastructure to the maximum extent practicable. The C4/Cyber FCB will assess the NR KPP, or Sponsor justification of why the NR KPP is not applicable, for any document with a JSD of JROC Interest, JCB Interest, or Joint Integration, and provide NR KPP certification in accordance with reference ss. Additional guidance on the NR KPP is provided in Appendix F to this Enclosure and in references qq and ss.

(5) Training. The Training KPP is applicable to all documents addressing potential ACAT I programs. The intent of the Training KPP is to ensure that training requirements are properly addressed from the beginning of the acquisition process, in parallel with the planning and material development, and updated throughout the program's Acquisition Life-Cycle. The J-7 representative participating in the lead FCB, in coordination with USD(P&R)/TRS, will assess the Training KPP, or Sponsor justification of why the Training KPP is not applicable, for any document with a JSD of JROC or JCB Interest. Endorsement of the Training KPP will be provided as part of the J-7 DOTmLPF-P endorsement. Additional guidance on the Training KPP is provided in Appendix G to this Enclosure.

(6) Energy. The Energy KPP is applicable to all documents addressing systems where the provision of energy, including both fuel and electric power, to the system impacts operational reach, or requires protection of energy infrastructure or energy resources in the logistics supply chain. The intent of the Energy KPP is to optimizing fuel and electric power demand in capability solutions as it directly affects the burden on the force to provide and protect critical energy supplies. The KPP includes fuel and electric power demand considerations in systems, including those for operating "off grid" for extended periods when necessary, consistent with future force plans and ISCs. The

Logistics FCB, in coordination with the Joint Staff J-4 / Engineering Division (J-4/ED) and with advice from the Defense Energy Board as appropriate, will assess the Energy KPP, or Sponsor justification of why the Energy KPP is not applicable, for any document with a JSD of JROC or JCB Interest. Additional guidance on the Energy KPP is provided in Appendix H to this Enclosure.

4. Development of KPPs and KSAs. The Sponsor designates appropriate attributes as KPPs and KSAs. For JROC Interest and JCB Interest documents, the JCB/JROC may designate additional attributes as KPPs or KSAs on the recommendation of the FCBs.

a. The following questions should be answered in the affirmative before a performance attribute is selected as a KPP for the increment being defined:

(1) Is the attribute a necessary component of one of the six "mandatory" KPPs listed above, or is it essential for providing the required capabilities?

(2) Does it contribute to significant improvement in warfighting capabilities, operational effectiveness, and/or operational suitability?

(3) Is it achievable and affordable (total life-cycle costs)?

(4) Is it measurable and testable?

(5) Are the definition of the attribute and the recommended threshold and objective values reflective of fiscal constraints, applicable technology maturity, timeframe the capability is required, and supported by analysis?

(6) Is the Sponsor willing to consider restructuring the program if the attribute is not met?

b. A KPP will normally be a rollup of a number of supporting attributes or KSAs which contribute to the overall performance required for the KPP. While changes to KPP thresholds and objectives require revalidation by the validation authority, the KSAs may be traded off against each other as long as the KPP threshold is achieved. The following is one methodology for developing KPPs:

(1) Step 1: List capability requirements for each mission or function as described in the proposed CDD or CPD. This review should include all capability requirements that the system described in the CDD/CPD is projected to meet, including those related to other systems in an FoS or SoS context. It shall also include all relevant performance metrics identified in ICDs for which the CDD/CPD is providing a capability.

(2) Step 2: Review for applicability the list of attributes associated with each of the joint functions in Appendix B to this Enclosure. Compile a list of potential attributes using Appendix B to this Enclosure as a starting point and include any other performance attributes that are essential to the delivery of the capability.

(3) Step 3: For each mission or function, build at least one measurable performance attribute using the list from Step 2 as a starting point.

(4) Step 4: Determine the attributes that are most critical or essential to the system(s) and designate them as KPPs. (Note: A KPP need not be created for all missions and functions for the system(s). In contrast, certain missions and functions may require two or more KPPs.)

(5) Step 5: Document how the KPPs are responsive to the capability requirements identified in the ICDs in support of the mission outcomes and associated desired effects.

c. Threshold and objective values of an attribute may change between the CDD and the CPD. The CDD attribute values are used to guide the acquisition community during EMD. Threshold values should be based on what is achievable through the current state of technology as a minimum. The objective values may be defined based on a goal for the end-state of the system. During EMD, tradeoffs are made between the threshold and objective values to optimize performance, given the available technology for the increment and the competing demands introduced by combining subsystems into the overall system. A deeper review of trade-offs at and around threshold values may be beneficial to explore incremental return on investment where particular thresholds are insensitive to small deviation at great advantage in cost, performance, and schedule reviews. After the CDR, these tradeoff decisions are essentially completed and a more precise determination of acceptable performance can be stated in the CPD.

(1) Figure B-A-1(a) shows an attribute (A) of a system with threshold and objective values (1 and 10, respectively) determined during the Technology Development (TD) phase and presented in the CDD. During EMD, optimum performance values may be developed for each attribute (or some attributes) on the basis of cost, performance, or other considerations, as shown in Figure B-A-1 (b).

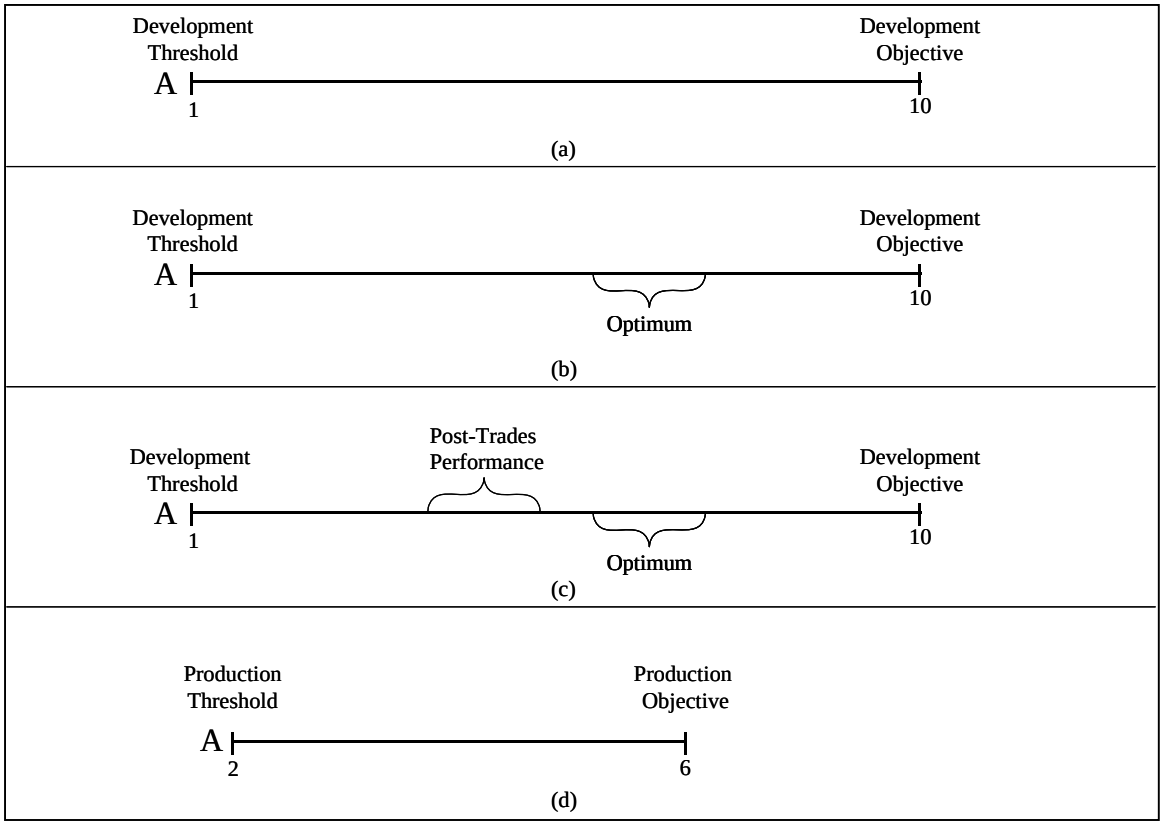

Figure B-A-1. CDD and CPD Attributes

(2) Further design tradeoffs among the collective attributes may necessitate settling for design performance values different from the optimum values for the individual attributes. The design performance values may be higher or lower than the optimum values. Figure B-A-1 (c) shows an example in which optimum performance was traded off because of other considerations, resulting in reduced performance within attribute A.

(3) The production threshold and objective values specified for the attribute in the CPD will be a refined version of the development threshold and objective values documented in the CDD. Figure B-A-1 (d) shows an example of the revised performance attributes that would be included in the CPD. Each production threshold value should be assessed against experience gained during the EMD phase. KPP and non-KPP threshold values in the CPD should be equal to or better than the corresponding CDD threshold values. In cases where CDD KPP or KSA threshold values are to be reduced in a CPD, the following questions must be answered in the CPD:

(a) Will the capability still provide sufficient military utility?

(b) If the new capability solution will replace a fielded capability solution, will it still provide more overall military utility than the fielded capability solution?

(c) Is this capability solution still a good way to address the capability requirement and close the associated capability gap or should another materiel or non-materiel alternative approach be pursued?

(d) Is the reduced capability worth the additional investments required to continue the program to completion?

(4) For an early increment in an evolutionary acquisition, the production objective value for the increment could be less than the development objective value.

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APPENDIX B TO ENCLOSURE B

ATTRIBUTES FOR POTENTIAL KPP DESIGNATION

1. The following list of example KPP attributes is provided to assist in identifying potential performance attributes for a system based on the joint functions defined in reference mmm. For each characteristic, a definition is provided as well as a list of potential performance attributes. The attributes listed here are not intended to be all encompassing, and others identified by the Sponsor may be used as part of the process delineated in Enclosure B. The performance attributes must be traceable to the capability requirements identified in the validated predecessor document.

a. Command and Control – C2 encompasses the exercise of authority and direction by a commander over assigned and attached forces in the accomplishment of the mission.

(1) Contact – detect/discriminate/classify type/identify friendly

(2) Information -- ability to create, store, discover, access, modify, or reconfigure

(3) Accurate engagement decision/engagement sequence

(4) Automated mission planning

(5) Initial report accuracy

(6) Speed of initial report

(7) Communication throughput while mobile/non-mobile

(8) Interoperable

(9) Net ready

(10) Networked with specific sensors/units

(11) Waveform compatibility

(12) Works with legacy systems

(13) Internal growth

(14) Types of broadcast supported/scalability

(15) Data -- transfer-distribution rate/update rate

(16) Multi-channel routing/retransmission/operation on the same net

(17) Data variable rate capability

(18) Coded message error probability

(19) Frequency range

(20) Transmitted data accuracy

(21) Security of C2 data

b. Battlespace Awareness (BA) – The ability to understand dispositions and intentions as well as the characteristics and conditions of the operational environment that bear on national and military decision making by leveraging all sources of information to include Intelligence, Surveillance, Reconnaissance, Meteorological, and Oceanographic.

(1) Coverage/focus areas

(a) Contiguous area (wide and narrow field of view)

(b) Simultaneity

(c) Synoptic area coverage

(2) Range of surveillance systems/sensors/ communications

(a) Platform range and operational characteristics (operating altitudes, refueled and unrefueled range, time on station (TOS), etc.)

(b) Effective range to target for all onboard sensors under differing weather conditions

(c) Required infrastructure (ground stations, relays, satellite communication (SATCOM), etc.)

(3) Persistence

(a) Time on target

(b) Endurance once on target

(c) Vulnerability to environment – day/night/all-weather

(d) Vulnerability to countermeasures – denied or opposed access

(e) Revisit rates or intervals

(4) Timeliness

(a) Time to target or re-target sensors

(b) Time to report; once data is collected, time to requested user

(5) Sensor Performance

(a) Bandwidth range collected against

(b) Geolocation accuracy

(c) Resolution in National Imagery Interpretability Rating Scale (NIIRS) or Ground Sample Distance (GSD)

(d) Spectrum covered by sensor collection

(6) Tracking Sensors

(a) Minimum detectable velocities

(b) Geolocation accuracy

(c) Ability to hold track (time and type of target)

(7) Processing/Exploitation

(a) Images processed per hour

(b) Image quality

(c) Image interpretability

(d) Geospatial accuracy

(e) Accuracy of data tags and classification markings

(8) Analysis, Prediction, and Production

(a) Ability to integrate, evaluate, interpret, and predict knowledge and information from available sources to develop intelligence and forecast the future state

(b) Number of data sources able to be fused together

(c) Types of INTs able to be fused together

(d) Time spent data mining vs. time spent performing analysis, prediction, and production

(9) BA Data Dissemination and Relay

(a) Ability to discover and retrieve information for all appropriate data sources

(b) Ability to authenticate users and machines and make authorization decisions for their access to information

(c) Ability to transmit data from collector through a media link to a processing site

(d) Ability to support the data relay with adequate capacity, continuity, and reliability

(10) Meteorology and Oceanography including Space Weather and Astrogeophysics

(a) Atmospheric vertical moisture profile

(b) Global sea surface winds

(c) Atmospheric vertical temperature profile

(d) Imagery

(e) Sea surface temperature horizontal resolution

(f) Soil moisture (surface) sensing depth

(g) Sea state (wave height, currents, storm effects)

(h) Bathymetry, sea mounts, other navigational hazards

c. Fires – To use available systems to create a specific lethal or nonlethal effect on a target.

(1) Weapon -- launch envelope/weight/number on launchers

(2) Platform -- systems/launchers/firing-storing capacity

(3) Weapon -- off axis launch angle, off bore sight angle, all weather, day-night

(4) Intercept/circular error probable

(5) Acceptable engagement sequence time

(6) Mission response time

(7) Power-up/fire/re-fire/weapon launch rate

(8) Sortie rate -- generated/sustained/surge

(9) Weapon in-flight re-targeting

(10) Detect to engage scenarios

(11) Expected fractional damage

(12) Probability of kill/mission kill

(13) Weapon range

(14) Dud or unexploded ordnance (UXO) rate

d. Movement and Maneuver – Disposing joint forces to conduct campaigns, major operations, and other contingencies by securing positional advantages before combat operations commence and by exploiting tactical success to achieve operational and strategic objectives.

(1) Air vehicles -- land-takeoff distance/ship launch-recover parameters/deck spot factor

(2) Air vehicle -- climb rate-gradient/G-load capability

(3) Air vehicles -- vertical-short take-off and landing/aerial refueling/classes of airspace/altitude (max-min-on station-intercept)

(4) Water vehicles -- land-launch spots/compatibility with other water vehicles

(5) Ground vehicle -- fording

(6) Platform range -- maximum/minimum/combat-mission radius

(7) Water vehicles -- draft/weight/stability/electrical generating capacity/test depth/sea state limitations

(8) Compatible on aircraft/aircraft carriers/ships

(9) Physically interoperable with other platforms/systems/subsystems/ warheads/launchers

(10) Platform speed -- maximum/minimum/cruise/flank/sustained/ acceleration/land-sea-air

(11) Weight/volume to fit expected carrying platforms

(12) Ability to transport aircraft/vehicles/cargo/fuel/passengers/ troops/crew

(13) Lift capacity

(14) Platform transportability

(15) Self-deployment capability

(16) Cargo transfer rate

(17) Platform specified timelines

e. Protection – Conserving the joint force's fighting potential through active defensive measures, passive defensive measures, applying technology and procedures, and emergency management and response.

(1) Access and control

(2) Threat challenges -- countermeasures/radar cross section-size/ multiple numbers

(3) Ability to withstand hit/blast/flood/shock/CBRN effects

(4) Assured communications to national, missile defense, and nuclear forces

(5) Covertness -- radiated noise/active target strength/radar cross section/electromagnetic quieting/radio frequency signature

(6) Information assurance – ability to protect and defend information and IS by ensuring information availability, integrity, authentication, confidentiality, and non-repudiation. These measures include providing for restoration of IS by incorporating protection, detection, and reaction capabilities.

(7) Jam resistance – ability to resist or deny adversarial attempts to disrupt or disable our systems within operations

(8) Tactics, techniques, and procedures/countermeasures

(9) Jamming capability

f. Sustainment – The provision of logistics and personnel services necessary to maintain availability of materiel and support operations until mission accomplishment.

(1) Training

(2) Logistics footprint

(3) Availability (down-time versus up-time)

(4) Sustained operations

(5) Time

(6) Reliability

(7) Maintainability

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APPENDIX C TO ENCLOSURE B

GUIDE FOR THE FORCE PROTECTION KPP

1. Introduction. All CDDs and CPDs for manned systems and systems designed to enhance personnel survivability will identify a FP KPP when those systems may be employed in an asymmetric threat environment. This applies to all pre-MS C programs.

a. When the JCB or JROC is the validation authority, the Protection FCB, in coordination with the lead FCB, will assess the FP KPP and provide an endorsement to the validation authority, if appropriate.

b. When the Sponsor is the validation authority, the Sponsor provides an endorsement to the validation authority if appropriate.

c. Sponsors who determine that the FP KPP does not apply will include rationale in the CDD/CPD.

2. Force Protection KPP

a. Force protection attributes are those that contribute to the protection of personnel by preventing or mitigating hostile actions against friendly personnel, military and civilians. This may include the same attributes as those that contribute to Survivability, but the emphasis is on protecting the system operator or other personnel rather than protecting the system itself.

b. Attributes that are offensive in nature and primarily intended to defeat enemy forces before they can engage friendly forces are not considered force protection attributes. Attributes that protect against accidents, weather, natural environmental hazards, or disease (except when related to a biological attack) are also not part of force protection.

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APPENDIX D TO ENCLOSURE B

GUIDE FOR THE SURVIVABILITY KPP

1. Introduction

a. Survivability attributes are those that contribute to the survivability of a manned or unmanned system from kinetic and non-kinetic effects. This includes attributes such as speed, maneuverability, detectability (visually, acoustically, and electronically) along with associated countermeasures that reduce a system's likelihood of being engaged by hostile fire. Examples include armor, electromagnetic spectrum control and/or redundancy of critical sub-components (i.e., radars, weaponry, or command & control devices) that reduce the system's vulnerability if it is hit by hostile fire. Other survivability attributes may include those required to survive and operate through CBRN effects, if applicable.

b. The Survivability KPP should reflect the information needs by each system under consideration as well as the needs of the appropriate supported systems. It should cover communications, control of the electromagnetic spectrum and computing requirements involving the exchange of information/data between sub-components for the successful completion of assigned warfighter missions.

c. Use of the Survivability KPP is expected for all manned systems and may be used for unmanned systems. Sponsors who determine the Survivability KPP does not apply for a manned system will include rationale in the CDD/CPD explaining why it is not appropriate. Joint Staff/J-3 and Protection FCB must concur in this determination.

2. Potential Attributes or Considerations

a. Speed

b. Maneuverability

c. Visual Detectability

d. Acoustic Detectability

e. Electronic Detectability

f. System Countermeasures

g. Armor Protection

h. System Critical Components Redundancy

i. Command and Control

j. Operational Availability

k. Information Assurance

l. Tactics, Techniques, and Procedures

m. Time

n. Access Control

o. Threat Challenges

p. Ability to Withstand Hit/Blast/Flood/Shock

q. Protection from CBRN Effects

s. Networked

t. Accurate Engagement Lethal and Non-Lethal

APPENDIX E TO ENCLOSURE B

GUIDE FOR THE SUSTAINMENT KPP

1. Introduction

a. Sustainment is a key component of performance. Including sustainment planning "upfront" enables the requirements and acquisition communities to provide a system with optimal availability and reliability to the warfighter at an affordable cost.

b. The value of the Sustainment KPP is derived from the operational capability requirements of the system, assumptions for its operational use, and the planned logistical support. For the PM to develop a complete capability solution for the warfighter, sustainment objectives must be established and performance of the entire system measured against those metrics.

c. This Appendix provides requirements managers, with support from the acquisition community, a guide to assist them in ensuring that effective sustainment is addressed and achieved. This is done through compliance with the Sustainment metrics as identified in the systems capabilities documents. This guide does not attempt to prescribe what will be provided to satisfy Sustainment requirements. It provides factors to be considered when determining if the rationale being provided meets the rigor needed for programs requiring a Sustainment metric. The methodology utilized to establish the Sustainment KPP will be reviewed and shall include sufficient supporting documentation. Reference kkk will assist Sponsors and PMs in developing the Sustainment KPP.

2. Applicability. The Sustainment KPP shall be developed for all ACAT I programs. ACAT II and below programs, with materiel solutions, shall include the Sustainment KPP or Sponsor defined sustainment metrics.

a. Pre-MS B Applicability – All ACAT I programs must meet the requirements of the mandatory KPP for Availability, and KSAs for Reliability and O&S Cost.

b. Post-MS B Applicability – For the Sustainment KPP to be used in a CPD for a system at MS C, it shall first have been used in the CDD at MS B. If the KPP was not present in the CDD, the Sponsor must identify the associated sustainment metrics for the system based upon the expected performance of the system that will go into production.

3. Background. The tenets of Life Cycle Management emphasize an early focus on sustainment within the system life cycle, to include the requirement

generation phase. Life Cycle Management is the implementation, management, and oversight, by the PM, of all activities associated with the acquisition, development, production, fielding, sustaining, and disposal of a DOD system. This guide emphasizes those sustainment analyses, activities, and documents within these phases necessary to ensure the design, development, testing, production, and fielding of reliable, affordable, and maintainable systems. The criteria, information, and activities listed are not inclusive – that is, they cannot necessarily be applied to all systems. Each program must determine whether and how each item is applicable to their specific concept, technology, and/or system.

4. Overview of Sustainment KPP Process

a. The sustainment KPP is derived from the operational capability requirements of the system, assumptions for its operational use, and the planned sustainment strategy. In order for the PM to develop a complete system to provide warfighting capability, sustainment objectives must be established and performance of the entire system measured against those metrics. The operational framework for the expected materiel availability must be clearly articulated up-front during the CBA or other studies. For example, if a CCMD had capability requirements which led to the development of a new medium lift transport vehicle, knowledge of the range of missions and required duration; constraints on loading and capacities; knowledge of operating environments and other related mission criteria are essential to ensure developers consider the variables that affect availability.

b. During the CBA or other study, the operational framework should be considered to guide the development of alternative materiel and non-materiel solutions (including hardware/software systems) and alternative sustainment approaches during subsequent analysis. Assessment of capability requirements and performance metrics must consider both the system and its sustaining support at the same time.

c. The Sustainment KPP has three elements that provide an integrated structure that balances sustainment with capability and affordability across a system's life cycle, and informs decision makers in trade-off analysis. See reference kkk for additional guidance to these three elements.

(1) Availability KPP. Availability consists of two components: Materiel Availability and Operational Availability. Respectively, they provide fleet-wide availability and an operational unit availability. The Operational Availability metric is an integral step to determining the fleet-wide availability. The following provides guidance for development of both metrics:

(a) Materiel Availability. Materiel Availability is the measure of the percentage of the total inventory of a system operationally capable, based on materiel condition, of performing an assigned mission. This can be expressed mathematically as the number of operationally available end items/total population. The total population of operational end items includes those in training, attrition reserve, pre-positioned, and temporarily in a non-operational materiel condition, such as for depot-level maintenance, shipyard repair, etc. Materiel Availability covers the total life-cycle timeframe, from placement into operational service through the planned end of service life.

(b) Operational Availability. Operational Availability is the measure of the percentage of time that a system or group of systems within a unit are operationally capable of performing an assigned mission and can be expressed as (uptime/(uptime + downtime)). Determining the optimum value for Operational Availability requires a comprehensive analysis of the system and its planned CONOPS, including the planned operating environment, operating tempo, reliability and maintenance concepts, and supply chain solutions. Operational Availability may be equivalent to Materiel Availability if the total number of a system or group of systems within a unit is the same as the total inventory.

(2) Reliability KSA. Reliability is a measure of the probability that the system will perform without failure over a specific interval, under specified conditions. Reliability shall be sufficient to support the warfighting capability requirements, within expected operating environments. Considerations of reliability must support both availability metrics.

(3) O&S Cost KSA. O&S Cost metrics provide balance to the sustainment solution by ensuring that the O&S costs associated with availability and reliability are considered in making decisions. The O&S Cost KSA is to be completed using Base Year dollars. For consistency and to capitalize on existing efforts in this area, all Cost Assessment and Program Evaluation (CAPE) O&S cost elements, outlined in reference nnn, will be used in support of this KSA. Energy costs included in this O&S cost will be set using the base year price for every year of this assessment. Scenario based estimates for fully burdened cost of energy, including fuel and/or electric power will also be calculated and reported as part of this KSA. The guidance for developing the fully burdened cost of energy estimates can be found in section 3.1.6 of reference ooo. Costs are to be included regardless of funding source or management control. The O&S value should cover the planned lifecycle timeframe, consistent with the timeframe and system population identified in the Materiel Availability metric. Sources of reference data, cost models, parametric cost estimating relationships, and other estimating techniques or tools must be identified in supporting analysis. Programs must plan for maintaining the traceability of costs incurred to estimates and must plan for

testing and evaluation. The Sponsor shall plan to monitor, collect, and validate operating and support cost data to support the O&S cost KSA.

d. A Reliability, Availability, Maintainability, and Cost (RAM-C) report, as defined in reference kkk, will document the quantitative basis for the three elements of the sustainment KPP as well as the tradeoffs made with respect to system performance.

e. The Sustainment KPP review proponent is the J-4/MXD. J-4/MXD will receive analytical support from the Office of the Deputy Assistant Secretary of Defense for Materiel Readiness (ODASD(MR)).

f. Process

(1) J-4/MXD receives notification of ACAT I Program documents via the KM/DS system.

(2) J-4/MXD reviews and coordinates with ODASD(MR) for Sustainment KPP analysis.

(3) J-4/MXD consolidates and enters comments into the KM/DS system.

(4) Program Sponsors will contact J-4/MXD for comment adjudication as outlined in Enclosure D.

(5) J-4/MXD and ODASD(MR) will provide representation to JROC and subordinate boards for unresolved critical comments.

5. Review Criteria

a. Availability

(1) Materiel Availability

(a) Is there evidence of a comprehensive analysis of the system and its planned use, including the planned operating environment, operating tempo, reliability alternatives, maintenance approaches, and supply chain solutions leading to the determination of the KPP value? Are the analysis assumptions documented?

(b) Is the total population of end items being acquired for operational use documented?

(c) Are specific definitions provided for failures, mission-critical systems, and criteria for counting assets as “up” or “down”? Are the failure rate values supported by analysis?

(d) Does the metric clearly define and account for the intended service life, from initial placement into service through the planned removal from service? (A graphic representation (timeline) of the life-cycle profile is an effective way to present the data.)

(e) What is the overall sustainment CONOPS? Is it consistent with other CONOPS, design reference missions, ISCs, etc. being supported? Is it traceable to the original capability requirements, or agreement with the warfighting community? What alternatives were considered? Have surge/deployment acceleration requirements been identified?

(f) Is failure/down-time defined? Is planned downtime (all causes) identified and included? Does analysis data support the downtime? Are data sources cited? How does the downtime value compare with downtimes for analogous systems?

(g) Are sources of data and processes to track the KPP across the life-cycle identified? What models are used to establish and track the KPP?

(2) Operational Availability

(a) Is there evidence of a comprehensive analysis of the system and its planned use, including the planned operating environment, operating tempo, reliability and maintenance concepts, and supply chain solutions leading to the determination of the value? Are the analyses documented?

(b) Are specific definitions provided for failures, mission-critical systems, and criteria for counting assets as “up” or “down”? Are the values for failure rates supported by analysis?

(c) Is scheduled downtime which affects the CCMD identified and included? Does the analysis package support the downtime? Are data sources cited? How does the downtime value compare with that experienced by analogous systems?

(d) Is downtime caused by failure addressed? Are the values used for failure rates supported by the analysis? Is there a specific definition established for failure?

(e) Is the administrative and logistics downtime associated with failures addressed (e.g. - recovery time, diagnostics time, movement of maintenance teams to the work site, etc.)?

b. Reliability

(1) Has the reliability metric been established at the system level? Is it traceable to the original capability requirements, or other performance agreement?

(2) Does the analysis clearly provide criteria for defining relevant failure?

(3) Does the analysis clearly define how time intervals will be measured?

(4) Does the analysis identify sources of baseline reliability data and any models being used? Is the proposed value consistent with comparable systems? Are sources of data and processes to track reliability across the life-cycle identified?

(5) Is the reliability value consistent with the intended operational use of the system (i.e., the CONOPs)?

(6) Is the reliability value consistent with the sustainment approach as presented in the operational availability metric?

(7) Is the reliability value improved relative to existing or analogous systems?

(8) For single-shot systems and systems for which units of measure other than time are used as the basis for measuring reliability, does the package clearly define the units, method of measuring or counting, and the associated rationale?

c. O&S Cost

(1) Has the O&S Cost goal been defined for the system's life cycle?

(2) Does the analysis utilize the CAPE O&S cost element structure where applicable? (Specifically, which CAPE O&S cost elements?)

(3) Are sources of baseline cost data, cost estimating relationships, and cost models identified?

(4) Is the cost model consistent with the assumptions and conditions being used for materiel availability and materiel reliability?

(5) Is the cost metric traceable to the original capability requirements, or agreement with the warfighter?

(6) Are all required costs included, regardless of funding source or management control?

(7) Is the O&S cost KSA data consistent with the program's life cycle cost estimate (LCCE), Cost Analysis Requirements Data (CARD) and/or the CAPE independent cost estimate (ICE) if available for comparison?

(8) Does the analysis include to the process for monitoring, collecting, validating, and reporting O&S cost data?

(9) If the Energy KPP is being applied to the program, are the same ISCs and duty cycles being used for gauging energy logistics risk in that KPP as are being used for estimating the "Fully Burdened Cost of Energy" as part of the O&S Cost KSA? If the same ISCs were not used, was rationale provided?

6. Questions. For questions regarding the Sustainment KPP, please contact J-4/MXD at 703-614-0161.

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APPENDIX F TO ENCLOSURE B

GUIDE FOR THE NET-READY KPP

1. NR-KPP Certification. All JCIDS documents are reviewed for compliance with the NR-KPP and spectrum requirements, when applicable. NR KPP assessments are conducted throughout the IS life cycle to identify and resolve potential interoperability and/or emerging net-centricity challenges and mitigate the risk of delivering non-interoperable capability solutions to the warfighter. The NR KPP certification process is described in references qq and ss.

2. NR-KPP Overview. All IS will follow the NR-KPP development process. Net-ready attributes determine specific measurable and testable criteria for interoperability, and operationally effective end-to-end information exchanges. The NR-KPP identifies operational, net-centric requirements in terms ofthreshold and objective values for measures of effectiveness (MOEs) and measures of performance (MOPs). The NR-KPP covers all communication, computing, and electromagnetic spectrum requirements involving information elements among producer, sender, receiver, and consumer. Information elements include the information, product, and service exchanges. These exchanges enable successful completion of the warfighter mission or joint business processes. The NR-KPP identified in the CDD or CPD will also be used in the ISP to identify support required from external IS. When identified as applicable for a given capability requirement, the NR-KPP is required for all program increments. The NR-KPP includes three attributes derived through a three step process of mission analysis, information analysis, and systems engineering. These attributes are then documented in solution architectures developed according to the current DOD Architecture Framework (DODAF). The attributes depict how planned or operational IS:

a. Attribute 1. Supports military operations,

b. Attribute 2. Is entered and managed on the network, and

c. Attribute 3. Effectively exchanges information.

3. Attribute Characteristics. A general attribute description is below followed by detailed steps to develop each attribute. Enclosure D of reference ss provides detailed direction to develop solution architectures for each attribute.

a. Support Military Operations. This attribute specifies which military operations (e.g. missions or mission threads), as well as operational tasks, a system supports. Threshold and objective values of MOEs are used to measure mission success and are specific to the conditions under which a mission will

be executed. Threshold and objective values of MOPs are used to measure task performance and the conditions under which the tasks are performed. Since the NR-KPP focuses on exchanging information, products, or services with external IS, these tasks should only be net-centric operational tasks. Operational tasks are net-centric if they produce information, products, or services for or consume information, products, or services from external IS (including storing information on external IS).

b. Entered and Be Managed On the Network. This attribute specifies which networks the IS must connect to in order to support its net-centric military operations. The attribute must also specify performance requirements for these connections. To determine these performance requirements, answer the following questions in the context of the missions and tasks supported:

(1) To what types of networks will the IS connect (this is more than internet protocol (IP) networks)?

(2) What MOPs do the required networks use to measure network entrance and management performance? This includes MOPs to measure the time from system start up to when the system is connected to the network and is supporting military operations.

(3) Who manages the system as it connects to various networks?

(4) How is system managed? Will management be distributed, centralized, local, or remote?

(5) What configuration parameters does the network have?

c. Effective Information Exchanges This attribute specifies the information elements produced and consumed by each mission and net-ready operational task identified above. Since the NR-KPP focuses on a system's interactions with external systems, information elements the IS produces, sends, or makes available to an external system and information elements the IS receives from an external system are identified. For each information element, MOPs are used to measure the information element's production or consumption effectiveness. The NR-KPP MOPs should also describe the information elements' continuity, survivability, interoperability, security, and operational effectiveness and how unanticipated users are affected.

d. Summary Table. Table B-F-1 summarizes the NR-KPP attributes and their associated metrics in terms of a standardized framework and data sources to leverage when developing attributes and their threshold and objective values.

NR-KPP Development Step	NR-KPP Attribute	Attribute Details	Measures	Sample Data Sources	MOE/ MOP
Mission Analysis	Support to Military Operations	Military Operation (e.g., mission areas or mission threads)	MOEs used to determine the success of the military operation	JMETL, JMT, UJTL, and METL	MOE
			Conditions under which the military operations must be executed		
		Operational tasks required by the military operations	MOPs used to determine activity performance	JMETL, JMT, UJTL, and METL	MOP
			Conditions under which the activity must be performed		
Information Analysis	Entered and managed on the network	Which networks do the net-centric military operations require	MOP for entering the network	N/A	MOP
			MOP for management in the network	N/A	MOP
	Effectively exchanges information	Information produced and consumed by each military operation and operational task	MOP to ensure information exchanges are: Continuous Survivable Interoperable Secure Operationally Effective	DODAF OV-3, Operational Resource Flow Matrix	MOP
Systems Engineering and Architecture	Supports all 3 attributes	Ensures that IS satisfies the attribute requirements	Provides traceability from the IS MOPs to the derived operational requirements	OVs and SVs	N/A

Table B-F-1. NR-KPP Development

4. NR-KPP Functions. The NR-KPP is used to address:

a. Requirements. Evaluate interoperability and net-centric requirements for the system.

b. Information Exchanges. Verify IS supports operationally effective producer to consumer information exchanges according to the Sponsor's validated capability requirements and applicable reference models and reference architectures.

c. MOEs and MOPs. Provide MOEs and MOPs to evaluate IS's ability to meet the threshold and objective or initial minimum values when testing the system for joint interoperability certification.

d. Interoperability Issues. Analyze and identify potential interoperability issues early in the IS's life cycle and identify joint interfaces through systems engineering and architecture development. IS architecture in JCIDS documents is developed according to the current DODAF. In addition, the architecture must align with Joint Mission Threads (JMTs), Joint Common System Functional List (JCSFL), DOD IEA, and the JIE ORA to identify potential interoperability disconnects with interdependent systems or services as well as detailed information exchange and information sharing strategies.

e. Compliance. Determine whether IS complies with network operations (NETOPS) for the GIG direction, GIG 2.0 goals and characteristics, and is integrated into system development, in accordance with reference ppp.

f. Spectrum Requirements. To obtain a NR-KPP certification, all IS must comply with spectrum management and E3 direction. The spectrum requirements process includes Joint, DOD, national, and international policies and procedures for the management and use of the electromagnetic spectrum. The spectrum requirements process is detailed in reference ss and details on compliance available at reference qq.

5. NR-KPP Development. All IS requires a NR-KPP that specifies measurable and testable interoperability requirements. Interoperability requirements include both the technical information exchanges and the operational effectiveness of those exchanges. NR-KPP development uses a 3 step question/answer process to develop threshold and objective values and initial minimum values.

6. NR-KPP Example. Table B-F-2 is an example of a completed NR-KPP.

NR-KPP Attribute	**Key Performance Parameter**	**Threshold**	**Objective**
Support to military operations	Mission: Tracking and locating (Finding, Fixing, Finishing) High-Value Target (HVT)		
	Measure: Timely, actionable dissemination of acquisition data for HVT	10 minutes	Near-real-time
	Conditions: Targeting quality data to the neutralizing/tracking entity	Area denial of HVT activities	HVT tracked, neutralized
	Mission Activities: Find HVT		
	Measure: Location accuracy	100 meter circle	25 meter circle
	Conditions: Individual differentiation	Identify armed/not armed	Identify individual
Enter and be managed in the network	Network: SIPRNET		
	Measure: Time to connect to an operational network from power up	2 minutes	1 minute
	Conditions: Network connectivity	99.8	99.9
	Network: NIPRNET		
	Measure: Time to connect to an operational network from power up	2 minutes	1 minute
	Conditions: Network connectivity	99.8	99.9
Exchange information	Information Element: Target Data		
	Measure: Dissemination of HVT biographic and physical data	10 seconds	5 seconds
	Measure: Receipt of HVT data	Line of Sight (LOS)	Beyond LOS
	Measure: Latency of data	5 seconds	2 seconds
	Measure: Strength of encryption	NSA certified type 1	NSA certified type 1
	Conditions: Tactical/Geopolitical	Permissive environment	Non-permissive environment

Table B-F-2. NR-KPP Example

7. Architecture Development Methodology and Interoperability. Reference qq describes the 6-step architecture development process for DOD, which supports the 3 step NR-KPP development process. Solution architectures, conforming to the current DODAF, are developed, registered, and used as tools to improve joint and multinational operational processes, infrastructure, and solutions, and to promote common vocabulary, reuse, and integration. Reference qq also outlines the NR-KPP development steps in relation to the JCIDS and acquisition processes. Additional guidance for architecture development of the NR-KPP is available in reference ss.

8. Submitting Architectures. The required architecture data is specified on Table B-F-3 and in reference qq. Include the web link to the required architecture data as part of Appendix A to the ICD, CDD, and CPD, wherein the data formats will support staffing, analysis, distribution, and reuse. Architecture data should be submitted in formats that can be viewed without specialized or proprietary tools and must be legible for reviewers. Until DM2 PES compliant tools are available with architecture data exchange standards, submit required architecture data using Microsoft products or the optional NR KPP architecture data assessment template. When DM2 PES compliant commercial architecture tools are available, they will be used to develop and submit architectures for NR KPP certification.

Document/ Architecture [5]	AV-1	AV-2	CV-1	CV-2	CV-3	CV-4	CV-5	CV-6	DIV-1	DIV-2 (OV-7)	DIV-3 (SV-11)	OV-1	OV-2	OV-3	OV-4	OV-5a	OV-5b	OV-6a	OV-6c	PV-2	SV-1 or SvcV-1	SV-2 or SvcV-2	SV-4 or SvcV-4	SV-5a or SvcV-5	SV-6 or SvcV-6	SV-7 or SVcV-7[6]	SvcV-10a	SvcV-10b	SvcV-10c	StdV-1 (TV-1)	StdV-2 (TV-2)
DCR	R[1]		R	R	R	R						R														R					
CONOPS	R[1]		R	R	R	R		R				R	R		R	R										R					
ICD	X[1]	X	R	X	R	R		X				X	X		X	X	O									R					
CDD	X[1]	X	X	X	X	X	X	X		X		X	X	X	X	X	X		X	X	X	X	X	X	X	X				X[2]	X[2]
CPD	X[1]	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X				X[2]	X[2]
IC[3, 4]	X	X	X	X			X		X	X		X	X	X		X	X	X	X		X	X	X	X	X		X	X	X	X	X
Legend		X – Required O – Optional R- Recommended, PM needs to check with their Component for any additional architectural/regulatory requirements for CDDs, CPDs. (e.g., HQDA requires the SV-10c, USMC requires the SV-3, IC requires the SvcV-10a and SvcV-8)																													
Note 1		The AV-1 must be registered, must be "public" and "released" at the lowest classification level possible in DARS for compliance.																													
Note 2		The technical portion of the StdV-1 and StdV-2 are built using GTG-F DISR standards profiling resources and, within six months of submitting JCIDS documentation, must be current and published for compliance. Use of non-mandated DISR standards in the StdV-1 must be approved by the PM or other duly designated Component cognizant official and documented by a waiver notification provided to the DoD CIO."																													
Note 3		Intelligence Community (IC) requirements IAW the IC Enterprise Architecture Program Architecture Guide and development phase which clarifies the IC Policy Guidance 801.1 Acquisition.																													
Note 4		Service Views (SvcV) only																													
Note 5		1. The Sponsor* and the Program are jointly responsible for the AV-1, AV-2, CV-1, CV-2, CV-3, CV-4, CV-5, CV6, SV-6 or SvcV-7. 2. The Sponsor* is responsible for the development of the architecture data for the OV-1, OV-2, OV-4, OV-5a, OV6c, DIV-2, and the SV-6 or SvcV-6. 3. The Program is responsible for the development of the architecture data for the DIV-1, DIV-3, OV-3, OV-5b, OV-6a, PV-2, SV-1 or SvcV-1, SV-2 or SvcV-2, SV-4 or SvcV-4, SV-5a or SvcV-5, SvcV-10a, SvcV-10b, SvcV-10c, StdV-1, and StdV-2. * Operational user (or representative).																													
Note 6		The NR-KPP Measures data is captured in the SV-7 or the SvcV-7.																													

Table B-F-3. Required Architecture Data by Document

APPENDIX G TO ENCLOSURE B

GUIDE FOR THE TRAINING KPP

1. Overview

a. The purpose of the Training KPP is to ensure that training requirements are properly addressed from the beginning of the acquisition process, in parallel with the planning and material development, and updated throughout the program's Acquisition Life-Cycle. Additionally, the Training KPP addresses concerns documented in reference qqq, and characterized by reference rrr.

b. Specifically, the Training KPP is designed to ensure that training considerations are planned for and developed early in the program and adequately resourced to fully support initial operational capability. This addresses the historic problem where new systems are developed and fielded to address a gap in warfighter capability and training on the proper use was not completed for some period of time later. Training was either not a formal part of the resourced program or the training resources were traded away to supplement increased cost of the parent system. Training not planned and integrated early, has the potential to be one of the top cost drivers over a program's life cycle. Therefore, to better mitigate cost growth of a program over that life cycle training shall be made available from the beginning of a program. The performance of any system is directly dependent on the training of the warfighters who operate and maintain the system.

c. The formal declaration of the Training KPP is not made until drafting the CDD, but the consideration of training implications as early as possible in CBAs or other studies, ICDs, and AoAs as part of a robust systems engineering approach to developing capability solutions for the warfighter. With the incorporation of a Training KPP, programs must develop a Training KPP tailored to their program, or provide required justification regarding recommendation for its exclusion, as directed by the validation authority.

2. Applicability

a. The Training KPP shall be considered for all systems under development where one of the major components of the system capability is dependent on operators, maintainers and leaders to be properly trained to fully utilize the capability of the system.

b. Development of training metrics is required for all ACAT I programs involving material solutions.

(1) Pre-Milestone B Applicability - All ACAT I programs must meet the requirements of the training KPP.

(2) Post-Milestone B Applicability – For a designated KPP to be considered as such within a CPD for a system at MS C, it must first have been required in the CDD at MS B. Though a Training KPP is not mandatory for post MS B programs if the KPP was not presented in the CDD, the Sponsor must identify the associated training metrics for the system based on the expected performance of the system that will go into production in the CPD.

c. Entry Criteria

(1) MS A: The Training KPP is not required at MS A, but an initial/draft training plan is required. This planning will characterize, focus, and enable the integration of technology ensuring the capability solution is usable to its full potential by the warfighter.

(2) MS B and C: The Training KPP is required for MS B and C along with a detailed training plan that addresses full training requirements and associated cost data.

3. Developing the Training KPP

a. Training implications are considered in the CBA and the AoA where relevant training criteria and alternatives are evaluated to provide an analytical foundation for establishing the Training KPP. This action ensures training and resourcing information is incorporated early in program planning, enables comparison of cost, schedule, and performance trade-offs for various training delivery methods, facilitates development of an optimal solution providing greatest enhancement of user capabilities, maintenance of skill proficiency, and optimizes individual and collective training costs. The following questions can assist in determining the importance of training for a specific capability solution. An answer of “yes” to several of these questions suggests how and where a Training KPP is relevant.

(1) Is the system intended for Joint, multi-Service, reserve component, interagency, and/or coalition use?

(2) Is the service life projected to be greater than five years, or extended beyond the initial warranty period, if applicable?

(3) Is the program a designated acquisition special interest?

(4) Is successful application of the system's capabilities critically dependent upon a rigorous training process early on to maximize system capability with the first unit equipped (FUE)?

(5) Are total life cycle training costs projected to be a significant part of the total life cycle costs?

(6) Is a stand-alone system training device or training capability required to support training in the live, virtual, or constructive environments to support the program?

(7) Will there be "negative training" if early system training is not synchronized in the program?

(8) Was the program designated a UON, JUON, or JEON, or is it transitioning from a technology initiative such as a JCTD or experiment?

(9) Are there program inter-dependencies between two or more programs?

(10) Is the man-machine interface for system or SoS operation or maintenance complex and requires a system schoolhouse capability?

(11) Does the COTS/GOTS hardware or software integral to the program require a training solution that is not already part of the COTS/GOTS product?

(12) Is embedded training and/or embedded instrumentation feasible and appropriate?

(13) Will realistic live training be restricted by cost, environmental, or safety concerns, increasing the reliance on virtual or constructive training capabilities?

b. Submission of associated training plans.

(1) For programs that are part of the DOD Component Acquisition Executive (CAE), the draft training plan and resource estimates for training is to be submitted to USD(P&R)/TRS for review and approval.

(2) For Joint programs, or those otherwise designated as JCB or JROC Interest, the draft training plan and resource estimates will be signed by the CAE and forwarded to USD(P&R)/TRS via the Joint Staff (or in parallel with USD(P&R)/TRS) for review and approval by Joint Staff and USD(P&R)/TRS 60

calendar days before the Defense Acquisition Board (DAB) seeking MS B entrance approval.

(3) For MDAPs seeking entry into MS C, an updated training plan shall be submitted for USD(P&R)/TRS approval at least 60 calendar days before the DAB. Ultimately, a master training plan with resources estimates will be developed in coordination with DOD Components and will provide direction for a master training plan template.

c. Training plans and training shall be coordinated across the resource Sponsor's organization and take into consideration the current Department training infrastructure and maturity of existing training and processes and address how the new system developed training will interact/interface training changes/enhancements with existing training.

d. The principal attributes of training are proficiency level, time to proficiency, and training retention.

(1) Proficiency level. Operators/Maintainers/Leaders perform tasks to standard x% of the time after training.

(2) Time to train. Operators/Maintainers/Leaders require no more than x [time in hours or days] to train to use the system capabilities properly.

(3) Training retention. Refresher training is required no more frequently than x [time interval] to maintain proficiency.

(4) Training support. Training requires appropriate resources to support effective training; specifically, x. [defined in appropriate measurable terms such as amount of land, quantity of ammunition, amount of fuel/repair parts, cost of simulators/simulations, number of training support personnel or instructors, bandwidth or satellite time, etc.]

(5) Training interoperability. System specific training capabilities are able to interoperate with and support collective training with existing live, virtual, and constructive training environments, or instrumentation systems such as Combat Training Center instrumentation systems, throughout the system lifecycle.

e. Metrics for training KPPs. Metrics are suggested below in terms of how time/schedule, performance, and resources/cost can be used with training KPPs.

(1) Time/Schedule metrics for training performance.

(a) Time required achieving initial capability on a system task (to standard).

(b) Time required to sustain proficiency on a system task (to standard);

1. Time until skill proficiency is lost (skill decay)

2. Frequency of training events to sustain proficiency

(c) Relative time required to achieve/sustain task proficiency in terms of hours, days, or weeks.

(d) Ability to deliver training capabilities on schedule

1. Before initial fielding requirements

2. Before initial institutional requirements

(2) Resources/Cost metrics for training performance.

(a) Land resources required to conduct training

(b) Ammunition resources required to conduct training

(c) Fuel/parts required to conduct training (in peacetime)

(d) Facilities required to conduct training

(e) Instructors required to conduct training

(f) Support personnel required to conduct training

(g) Bandwidth and satellite time required to conduct training

(h) Training Aids, Devices, Simulators, and Simulations required to conduct training

(3) Performance metrics for training performance.

(a) Objective defined as best performance achievable by training audience population with unlimited time and resources

(b) Threshold defined as best performance desired from training audience population with time constrained (consider 1 hour/1 day/1 week intervals)

(c) Interoperability with:

1. Live, virtual and constructive training environments

2. Combat Training Center (CTC) instrumentation systems

(d) Degree of embedded training capability versus appended/stand-alone training capabilities

(e) Deployment/transportability of training capabilities

(f) Flexibility/realism of training capability to adapt to changed training conditions:

1. Weather/temperature/humidity

2. Urban/suburban/rural

3. Terrain (mountain, desert, woodland, coastal, swamp, etc.)

(g) Leadership and education. Leaders at all levels of employment are capabile of utilizing the system to its full design capability in all contingencies.

APPENDIX H TO ENCLOSURE B

GUIDE FOR THE ENERGY KPP

1. Introduction

a. Energy performance is a key component of system and unit performance. Including energy planning "upfront" enables the acquisition and requirements communities to provide capability solutions with optimal energy demand (e.g. system, logistics, etc.) to the warfighter at best value.

b. The value of the Energy KPP is derived from the operational requirements of the system, scenario-based assumptions for its operational use, and the planned logistical and force protection support to sustain it. In order for the PM to develop a complete system to provide warfighting capability, energy performance objectives must be established for the entire system measured against those metrics. Include operational energy demand and related energy logistics resupply risk considerations with the focus on mission success and mitigating the size of the logistics force within the ISCs. These assessments inform the setting of targets and thresholds for the energy efficiency where applicable. Consider energy delivery risk in irregular warfare, operations in austere or concealed settings, and other asymmetric environments, as well as operations in conventional campaigns.

c. This Appendix provides requirements managers, with support from the acquisition community, a guide to assist them in ensuring that supportable operational energy is addressed and achieved. This is done through compliance with operational Energy metrics as identified in the systems capabilities documents. Considering energy-related sustainment limitations upfront enables the acquisition and requirements communities to provide a system with optimal energy performance for the Joint Warfighter. This guide will not attempt to prescribe what will be provided to support Energy requirements. It will provide factors which should be considered when determining if the rationale being provided meets the rigor needed for programs requiring an Energy metric review. Methods are not directed, but must withstand critical review and must provide sufficient supporting documentation detail to validate methods.

d. The analysis underpinning this documentation must be derived from ISCs that include operation of the system in question but also the energy-related logistics and force protection required in contested operational domains, including considerations for operating "off grid" for extended periods when necessary. All ISCs used by the program for this analysis must be of sufficient duration (multiple days to weeks) to demonstrate the effect of realistic opponent effects on the US and/or coalition logistics force. Such analysis is

required because kinetic and non-kinetic capabilities to potentially counter logistics are proliferating and because operational experience has shown the inherent vulnerability and opportunity cost of employing and protecting large logistics forces in contested domains.

2. Background

a. The purpose of the Energy KPP is to address growing threats against the provisioning of energy to systems (forces) during operations while sustaining the capabilities required by the operational commander. What makes this KPP unique is the need to look at threats and limitations to the logistics forces required by a system, not just the system itself, in setting threshold and objective measures of energy efficiency. The proliferation and improvement of anti-access and area-denial capabilities globally, coupled with growing fuel and electrical power demand across the Joint force, means operational constraints on energy logistics must be included in the tradespace for any new system that demands energy in operations. Further, there is an inherent opportunity cost to the Department and force structure in allowing logistics support, particularly energy-related delivery, to grow without analyzing the value of reducing the demand for their support. The same consideration applies to force protection for those logistics forces. It is vital to explore both demand-side and supply-side energy considerations in developing capability solutions.

b. The scenario analyses needed to set threshold and objective measures of energy usage by the system therefore must include the logistics forces required as well as realistic threats and disruptions to those logistics. This interplay of combat and support forces, based on existing DOD Component and Joint planning factors and ISCs, will help identify the threshold and objective levels of unrefueled range and loiter required to be mission capable. From those ranges and mission profiles, the design, technology, cost and schedule trades between each variable that affects energy demand on-board (powerplant, weight, drag, electrical load, etc.) can be informed. The KPP metrics could be expressed as units of energy used per period of time (e.g. gallons per hour), or as the number of refueling required per period of time (e.g. tankings per hour). It is from these operational metrics that technical system metrics can be established.

c. This KPP differs from the Sustainment KPP in several ways. First, fuel delivery logistics have a uniquely large presence in the total force structure (tanker aircraft, oilers and fuel trucks) and in the battlespace. Second, fuel, in the large volumes US forces demand it, and, in the timeframe when new systems will come into the force, may become less readily available in the marketplace near where it is required for operations. Third, this Energy KPP does not address energy-related costs, but rather, the interaction of combat and support assets required to deliver military capability. The Sustainment

KPP requires that the Fully Burdened Cost of Energy (FBCE) be calculated and considered within the O&S Cost KSA. Some of the same scenario-based analysis used to calculate the FBCE is the same as that for setting the Energy KPP threshold and objective.

d. The tenets of Life Cycle Management emphasize an early focus on sustainment within the system life cycle. Life Cycle Management is the implementation, management, and oversight, by the designated PM, of all activities associated with the acquisition, development, production, fielding, sustainment, and disposal of a DOD system across its life cycle. This guide emphasizes those energy-related sustainment analyses, assumptions, and documents within these phases necessary to ensure the design, development, testing, production, and fielding of mission-effective systems and units. The criteria, information, and activities listed are not inclusive – that is, they cannot necessarily be applied to all systems. Each program must determine whether and how each item is applicable to their specific concept, technology, and/or system.

e. The newly formed Defense Energy Board, co-chaired by the Assistant Secretary of Defense for Operational Energy Plans and Programs (ASD(OEPP)), and Director, Joint Staff J-4 Directorate for Logistics (DJ-4), will direct the establishment of specific energy metrics to be applied in subsequent revisions of the Energy KPP.

3. Overview of Energy KPP Review Process

a. On behalf of the Logistics FCB, the Joint Staff J-4/Supply Division (J-4/ED) evaluates and endorses the Energy KPP in JCIDS documents. J-4/ED receives analytical support from ASD(OEPP).

b. Process

(1) J-4/ED receives notification of new JCIDS documents in the KM/DS system.

(2) J-4/ED reviews and coordinates with ASD(OEPP) for Energy KPP analysis.

(3) J-4/ED consolidates and enters comments into the KM/DS system.

(4) Document Sponsors will adjudicate comments as part of document staffing outlined in Enclosure D.

(5) J-4/ED and ASD(OEPP) will provide representation to the JROC and subordinate boards for unresolved critical comments.

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ENCLOSURE C

GATEKEEPING

1. Gatekeeper. The Gatekeeper manages the overall flow of documents into and out of the JCIDS process for staffing and validation, in addition to other activities in support of the JCIDS process.

a. In accordance with reference nn, the intelligence community (IC) maintains a common Gatekeeper function for the ICCR and JCIDS processes. Documents for both processes are submitted to the Gatekeeper to initiate staffing and ensure appropriate visibility and participation across processes.

b. Sponsor organizations submitting and/or commenting upon JCIDS documents will have a Gatekeeper function providing a single point of entry into the JCIDS process, and if applicable, the ICCR process, and facilitating communications between the Joint Staff Gatekeeper and principals in Sponsor organizations.

2. Document Submission

a. Regardless of potential ACAT or validation authority, Sponsors submit all ICDs, CDDs, CPDs, and Joint DCRs to the Joint Staff for evaluation of joint equity and determination of the appropriate staffing process and validation authority.

(1) Documents for capability requirements that are funded primarily or wholly with NIP funding, and are related to MSA, or are programs designated by the SecDef or the DNI to be of special interest, will be developed, reviewed, and validated in accordance with the ICCR process outlined in reference oo.

(2) Documents for capability requirements that are funded primarily or wholly with MIP funding, and are related to MSA, or are programs designated by the SecDef or the DNI to be of special interest, will be developed, reviewed, and validated under the JCIDS process outlined in this Manual and in reference b.

b. Sponsors submit all documents via their organizational gatekeeper to facilitate single point of entry into the JCIDS process.

(1) ICDs, CDDs, CPDs, and Joint DCRs classified SECRET and below are submitted to the KM/DS system either via the CDTM tool in reference e, or by uploading the document directly to the KM/DS system. If a Sponsor wishes to submit a physical signature page, that one page may be submitted in pdf format as an attachment.

(2) JUONs and JEONs are not submitted to the KM/DS system, but are submitted via email or memo to the Gatekeeper without using the CDTM tool.

(3) Documents classified above SECRET, are not submitted to the KM/DS system, but a placeholder record is submitted into the KM/DS system with instructions on document location and how to request access.

(4) Documents addressing SAP are not entered into the KM/DS system, and no placeholder record is created. SAP documents are submitted via the Joint Staff SAPCO, who will then notify the Gatekeeper for identification of applicable FCB(s) and scheduling of review by the SAP Integration Group. Validated documents will be retained in accordance with storage and handling procedures for each program and SAP policy outlined in references sss and ttt.

d. Concurrent staffing of ICDs, CDDs, and CPDs for the same capability requirement/solution is not allowed. Concurrent staffing of waiver requests for predecessor documents is allowed. The staffing of a document will be immediately terminated if the waiver request for its predecessor is denied.

e. ICD or CDD Waiver Requests. ICDs and/or CDDs may be waived in cases where potential programs are best served by proceeding directly to MS B or C, such as for GOTS/COTS solutions, transitioning UONs/JUONs, successful JCTDs, etc. The Gatekeeper is the approval authority for ICD and CDD waiver requests.

(1) The waiver request will be submitted in memo form into the KM/DS system as the document type that is being waived (e.g., ICD waiver request will be submitted as an ICD document type), and must be endorsed by the Service, CCMD, or other DOD Component J8 equivalent or higher. The waiver request must include the rationale/justification for why an ICD and/or CDD is not required, the source(s) of equivalent information, and the proposed path forward. In cases where an AoA recommends processing directly to a CPD and MS-C decision, the post AoA review by the FCB satisfies the intent of the waiver request.

(2) The Gatekeeper sets the staffing stage to “FCB Draft”, and assigns the waiver request to the appropriate FCBs and a Joint Staff J-8/Capabilities and Acquisition Division (J-8/CAD) Action Officer for evaluation within 4 calendar days of receiving the waiver request.

(3) The lead FCB, in coordination with the J-8/CAD Action Officer, will develop a recommendation for approval/disapproval of the waiver within 13 calendar days.

(4) After receiving the recommendation from the Lead FCB, the Gatekeeper will approve or disapprove the request within 4 calendar days.

(5) Approval or denial of the request is documented in memo format from the Gatekeeper and is posted as an attachment to the request in the KM/DS system.

3. Gatekeeping for ICDs, CDDs, CPDs, and Joint DCRs. The Gatekeeper provides the initial review of incoming documents and performs several activities prior to documents entering staffing:

a. Reviews each document submitted, regardless of actual/potential ACAT designation, previous delegation decisions, or previous JSD (or former JPD) decisions, to confirm that the document is complete and ready for staffing.

b. Confirms that CBAs, studies, and other similar supporting materials for the document have been uploaded to the KM/DS Studies repository, or if not appropriate for the KM/DS studies repository, have been linked and/or appended as attachments to the document.

c. May reject documents that are not properly formatted when the format issues cannot be easily corrected during post-staffing comment resolution. Document rejection terminates the Joint requirements process until corrective actions are taken, and the revised document is accepted by the Gatekeeper.

d. Identify lead FCB and supporting FCBs as needed.

e. Assign one of five JSDs based on actual/potential ACAT and Joint Staff equities (necessity of specific endorsements, leadership guidance, predecessor document JSD, etc.). The JSD sets the staffing path and timeline for the document, and identifies the validation authority. JSDs may be changed during active staffing, but will not be revisited for a subsequent submission of the same document unless the lead FCB submits a request for JSD change to the Gatekeeper.

(1) JROC Interest. Applied to all documents describing ACAT I/IA programs, Joint DCRs, and those that have a potentially significant impact on interoperability (interagency, allied/partner nation, coalition, etc.). All documents will be evaluated for Joint Staff endorsements during staffing. FCBs will review for Interagency/Allied/partner nation equity and perform Joint prioritization of the new capability requirements. The document will be made available via KM/DS staffing for comment. Comment adjudication for comments unrelated to joint endorsements or certifications must be completed to the satisfaction of the validation authority. Comments adjudication related to joint endorsements and certifications must be completed to the satisfaction of the endorsing or certifying organization. The JROC is the validation authority for JROC Interest documents.

(2) JCB Interest. Applied to all documents describing ACAT II and below programs that have a potentially significant impact on interoperability (Interagency/Allied/partner nation, coalition, etc.). JCB Interest is the minimum JSD for any documents where (a) the Sponsor is a CCMD, or (b) the document is an IS ICD. All documents will be evaluated for Joint Staff endorsements during staffing. FCBs will review for Interagency/Allied/partner nation equity and perform Joint prioritization of the new capability requirements. The document will be made available via KM/DS staffing for comment. Comment adjudication for comments unrelated to joint endorsements or certifications must be completed to the satisfaction of the validation authority. Comments adjudication related to joint endorsements and certifications must be completed to the satisfaction of the endorsing or certifying organization. The JCB is the validation authority for JCB Interest documents.

(3) Joint Integration. Applied to all documents describing ACAT II and below programs, which require one or more joint endorsements or certifications, but are below the level of JCB Interest. All weapons and munitions will be designated Joint Integration as a minimum. All documents will be evaluated for joint endorsements and certifications. FCBs will review for Interagency/Allied/partner nation equity and perform Joint prioritization of the new capability requirements. The document will be made available via KM/DS staffing for comment. Comment adjudication is at the discretion of the Sponsor for comments unrelated to joint endorsements or certifications. Comments adjudication related to joint endorsements and certifications must be completed to the satisfaction of the endorsing or certifying organization. The Sponsor organization is the validation authority for Joint Integration documents.

(4) Joint Information. Applied to all documents describing ACAT II and below programs, which do not need Joint Staff endorsements, and are below the level of JCB Interest. FCBs will review for Interagency/Allied/partner nation equity and perform Joint prioritization of the new capability requirements. The document will be made available via KM/DS staffing for comment. Comment adjudication is at the discretion of the Sponsor. The Sponsor organization is the validation authority for Joint Information documents.

(5) Independent. Applied to documents describing all other programs. The documents are not staffed through the Joint community for comment, but FCBs will update Joint prioritization for any new capability requirements within their JCA portfolios. As Independent documents are not staffed to external organizations for comment, no comment adjudication is required. The Sponsor organization is the validation authority for Independent documents.

f. Determine what Joint Staff endorsements may be necessary during staffing. Possible endorsements include the following:

(1) DOTmLPF-P endorsements, including assessment of the Training KPP if applicable, are provided by J-7 for all Joint DCRs, and other documents that advocate DOTmLPF-P changes except those with a JSD of "Joint Information" or "Independent", in accordance with this Manual.

(2) Joint Staff J-2 threat validation and intelligence endorsements, in accordance with reference pp, for all ICDs, CDDs, and CPDs, except those with a JSD of "Joint Information" or "Independent", and for all Joint DCRs with Intelligence supportability impacts or affecting capability solutions which previously received threat validation and intelligence endorsement.

(3) Weapons safety endorsements are provided by J-8/Deputy Director for Force Protection (DDFP), with recommendation from the Joint Weapon Safety Technical Advisory Panel (JWSTAP), for all documents addressing munitions, in accordance with Appendix A to Enclosure D and references tt and vv.

(4) NR KPP endorsements are provided by J-8/DDC4 for all IS ICDs, and all other documents that specify the NR KPP, in accordance with Appendix F to Enclosure B and references qq and ss.

(5) Protection FCB review and endorsement of Force Protection and Survivability KPPs, in accordance with Appendices C and D to Enclosure B.

(6) J-4/MXD review and endorsement of Sustainment and Energy KPPs, in accordance with Appendices E and H to Enclosure B.

g. Assign a POC within J-8/CAD to oversee the document during Joint staffing and participate in the FCB as a subject matter expert as required.

h. Initiate staffing of the document by sending the document to the lead FCB, and ensure notifications generated by the KM/DS system are sent to all affected process participants, including the Sponsor, FCBs, Joint Staff Directors (JDIRs), validation authorities, and endorsing/certifying organizations. Staffing calendars in the KM/DS system are tentatively set based upon nominal process timelines, and are updated automatically as process phases are completed.

(1) For IC capability requirements assigned to the ICCR process for review and validation, the Gatekeeper will notify the Chair of the BA FCB to enable proper coordination and participation in the ICCR process.

(2) For IC capability requirements assigned to the JCIDS process for review and validation, the Gatekeeper will notify the Associate Director of National Intelligence for Systems and Resource Analysis (ADNI/SRA) to enable proper coordination and participation in the JCIDS process.

4. Gatekeeping for UONs, JUONs, and JEONs

a. DOD Component UONs. DOD Component UONs are validated by Sponsor validation authorities using staffing detailed in references o through u.

(1) Upon completion of Sponsor staffing and validation, copies of the UON and validation decision are submitted to the KM/DS system for information purposes and visibility in the JCA portfolios.

(2) If a Sponsor also uses their UON process to manage supply-type requests and other actions unrelated to documenting new capability requirements and associated capability gaps, they will filter documents accordingly, and upload to the KM/DS system only those documents which reflect new or modified capability requirements and capability gaps.

b. JUONs. Upon receiving a JUON document, the Gatekeeper verifies that the submission meets the JUON criteria as defined in Enclosure B.

(1) In cases where the submission does not meet the JUON criteria, the Gatekeeper will issue a memo to the Sponsor with the rationale for rejection, and if applicable, suggestion(s) for alternate approaches to satisfy the capability requirement. Disposition will be archived on the KM/DS system for visibility and reference purposes.

(2) In cases where a submission does not meet the criteria for a JUON, but J-8/DDR anticipates that the Vice Chairman of the Joint Chiefs of Staff (VCJCS) would approve handling the capability requirement as a JEON, the Gatekeeper will notify the Sponsor of the designation change and continue processing the submission as a JEON.

(3) Documents meeting the JUON criteria are assigned to the appropriate Lead FCB for collaborative review with the JRAC in accordance with Enclosure E.

c. JEONs. JEONs require expedited handling in a similar manner to JUONs, but with several distinct differences:

(1) Upon receiving a JEON document, the Gatekeeper will coordinate through the Director, Joint Staff J-8 (DJ-8) to the VCJCS to confirm the request justifies expedited handling, even if the anticipated contingency operations are not known to the Gatekeeper.

(2) In cases where the JEON is not approved by the VCJCS, the Gatekeeper will issue a memo to the Sponsor with the rationale for rejection, and if applicable, suggestion(s) for alternate approaches to satisfy the capability requirement. Disposition will be archived on the KM/DS system for visibility and reference purposes.

(3) Following VCJCS confirmation, JEONs are assigned to the appropriate Lead FCB for collaborative review with the JRAC in accordance with Enclosure E.

5. Processing Sponsor Requests for Changes to Previous Validation

a. For changes to validated ICDs, CDDs, CPDs, or Joint DCRs:

(1) The Sponsor submits the updated document to the KM/DS system as an FCB draft document, and identifies in the "purpose" section that this is a KPP update only and requests direct consideration by the FCB without staffing.

(2) The Lead FCB and the J-8/CAD action officer will evaluate the change and determine if staffing is required.

(3) If additional staffing is required, the change will go through the normal staffing process.

(4) If the update is to the NR-KPP only, the document will be staffed to the C4/Cyber FCB for recertification via the KM/DS system.

(5) If additional staffing is not required, the lead FCB will work with the Sponsor to prepare a briefing for the JROC/JCB to obtain approval.

(6) The lead FCB will schedule the briefing on the JCB and JROC calendars as required.

b. For changes to validated JUONs or JEONs:

(1) The Sponsor submits the updated document to the Gatekeeper via email.

(2) The Gatekeeper will forward the updated document to the Lead FCB and JRAC for review.

(3) The Lead FCB, in coordination with JRAC will make a validation recommendation to the validation authority.

c. For changes to DOD Component UONs, Sponsors will comply with processes outlined in references o through u.

6. Gatekeeping and Staffing Metrics

a. The Gatekeeper generates metrics related to the JCIDS Processes and posts to the KM/DS system for visibility and potential process improvement action. Initial metrics will be manually generated, with future automation for enduring metrics of interest to senior leadership. Metrics may include:

(1) Gatekeeping Metrics

(a) Percent of documents initially accepted/rejected by gatekeeper. Measure of quality of Sponsor document submissions.

(b) Percent of documents, based upon CBAs or other studies, which had a study initiation notice posted to the KM/DS studies repository prior to study initiation and had study results posted to the KM/DS study repository prior to submitting document. Measure of Sponsor compliance with policy to facilitate collaboration on studies, reduce redundant study efforts, and enable leverage of historical studies.

(c) Elapsed time from Sponsor document submission to Gatekeeper assignment for staffing. Measure of Gatekeeper compliance with staffing timelines, and measure of contribution to overall staffing time metrics.

(2) Deliberate Staffing/Validation Metrics

(a) Elapsed time for FCB WG review. Measure of FCB WG compliance with staffing timelines, and measure of contribution to overall staffing time metrics.

(b) Elapsed time for Sponsor comment adjudication. Measure of Sponsor compliance with staffing timelines, and measure of contribution to overall staffing time metrics.

(c) Elapsed time for FCB Chair Review and validation recommendation. Measure of FCB compliance with staffing timelines, and measure of contribution to overall staffing time metrics.

(d) Percent of documents receiving positive/negative FCB validation recommendations. Indirect measure of quality of Sponsor comment adjudication and/or indirect measure of significance of Sponsor proposed capability requirements to the overall joint portfolio.

(e) Elapsed time from FCB validation recommendation to validation by JCB or JROC. Measure of JCB/JROC compliance with staffing timelines, and measure of contribution to overall staffing time metrics.

(f) Percent of documents validated/non-validated by validation authority. Indirect measure of FCB and validation authority alignment on intended direction for Joint portfolios.

(g) Elapsed time from validation authority decision to signed JROCM being available in the KM/DS system. Measure of contribution to overall staffing time.

(3) Urgent/Emergent Metrics

(a) Elapsed time for FCB WG and JRAC review. Measure of FCB WG and JRAC compliance with staffing timelines, and measure of contribution to overall staffing time metrics.

(b) Percent of JUONs/JEONs receiving positive/negative FCB/JRAC validation recommendations. Indirect measure of significance of Sponsor proposed capability requirements to the overall joint portfolio.

(c) Elapsed time from FCB/JRAC validation recommendation to validation by the validation authority. Measure of validation authority compliance with staffing timelines, and measure of contribution to overall staffing time metrics.

(d) Percent of JUONs/JEONs validated/non-validated by the validation authority. Indirect measure of FCB and validation authority alignment on intended direction for Joint portfolios and/or indirect measure of significance of Sponsor proposed capability requirements to the overall joint portfolio.

(4) Post Validation Metrics

(a) Elapsed time from document validation to submission of successor document or fielding of capability solution. Measure of acquisition contribution to elapsed time.

(b) Percentage of validated documents returning for revalidation due to JROC/JCB tripwire or Nunn-McCurdy breach. Measure of Sponsor ability to meet validated capability requirements as proposed/validated.

(c) Percentage of validated documents returning for revalidation due to Sponsor proposed changes to requirements. Measure of requirement stability.

(d) For JUONs/JEONs, elapsed time from fielded solution to CCMD submission of an assessment of operational utility of the fielded capability solution. Measure of CCMD compliance with policy to facilitate feedback and transition of enduring but rapidly fielded capability solutions.

(e) For JUONs/JEONs, percent of rapidly fielded capability solutions receiving each of the assessment categories – success/enduring requirement, success/limited sustainment, or failed/develop alternate capability solution.

(f) For JUONs/JEONs with assessments documenting enduring capability requirements, elapsed time from assessment to submission of CDD or CPD for transition and sustainment. Measure of transition success for enduring capability requirements.

7. Additional Gatekeeping Activities

a. Monitoring of validated JUONs and JEONs. The Gatekeeper monitors progress of efforts toward fielding solutions for JUONs and JEONs on a quarterly basis in accordance with Enclosure F. The Gatekeeper also initiates reviews of validated JUONs and JEONs which have been active for two years or more without receiving an assessment from the requirement sponsor indicating requirement to transition to enduring capability requirements or limited duration sustainment.

b. Management of the CDTM tool for document generation. The Gatekeeper manages updates to the CDTM tool to maintain alignment with the JCIDS process, and collects errata and product improvement suggestions from users.

c. Management of the studies repository.

(1) The Gatekeeper manages the organization of the studies repository on the KM/DS system, and in hard copy format for studies classified above SECRET, and ensures that Sponsors provide studies supporting their JCIDS documents to the repository prior to initiation of staffing.

(2) The Gatekeeper ensures that FCBs are notified of study initiation and study result postings which are applicable to their respective JCAs.

d. Management of FCB Joint prioritization outputs. The Gatekeeper manages the priority lists for capability requirements generated and updated by each of the FCBs.

ENCLOSURE D

DELIBERATE STAFFING PROCESS

1. Overview. This Enclosure provides the overview of the JCIDS deliberate staffing process, as required by the Gatekeeper assigned JSD. Staffing processes are generally the same for all ICDs, Joint DCRs, CDDs, and CPDs of the same JSD. Post-AoA reviews by the FCBs follow a similar staffing process, but without further review and comments from outside the FCBs. See figure D-1.

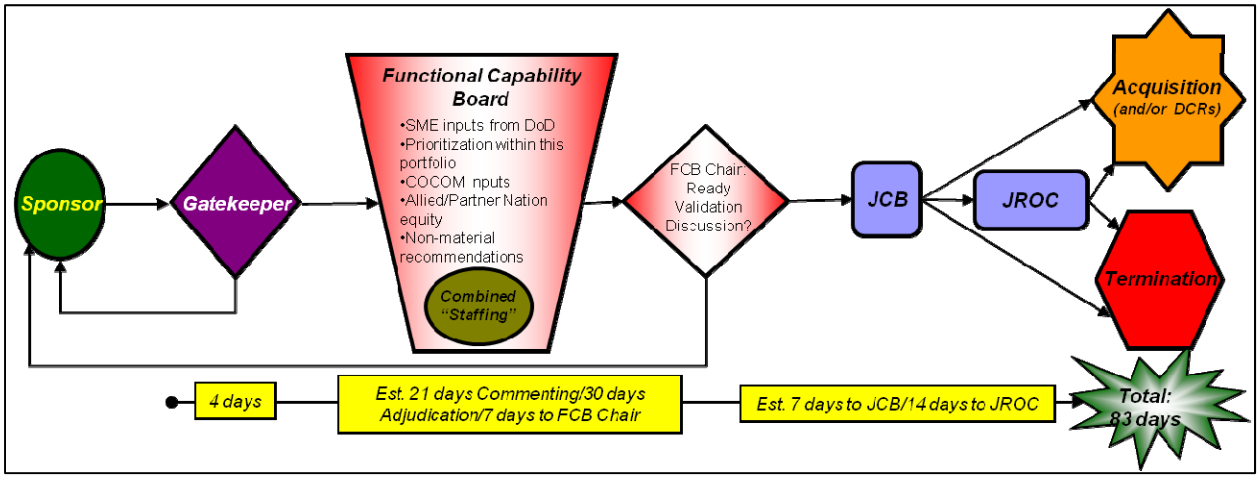

Figure D-1. Deliberate Staffing Overview

a. The Deliberate staffing process for a properly prepared document takes no more than 83 calendar days. Requests for extensions to staffing timelines may be submitted to the gatekeeper on a case-by-case basis. Staffing metrics will be updated to identify the source of the staffing delay.

b. The document's Sponsor may withdraw a document from active staffing at any time during the staffing process, with notification to the Gatekeeper.

c. For documents with JSDs below JCB or JROC Interest, the JROC delegates validation authority to the Sponsor organization, and Sponsors may use their own internal staffing processes for review and validation. Sponsor processes must accommodate the time required to obtain Joint Staff endorsements and/or certifications where applicable.

d. Sponsors with delegated validation authority will ensure that final versions of all Sponsor validated documents are submitted to the KM/DS system for information purposes and for visibility in the JCA portfolios.

e. All documents undergoing staffing are considered "draft" until validated by the validating authority.

2. Staffing

a. The deliberate staffing process begins when the Gatekeeper receives a new document via the KM/DS system.

b. The Gatekeeper has 4 calendar days to perform initial review of the document and assign the new document to a Lead and supporting FCBs. Adjustments to the assignment of lead and supporting FCBs are made as necessary based on the requests of the FCBs.

c. Initial staffing of documents is conducted for 21 calendar days from the assignment of the document to the lead FCB. FCB review of AoAs, waiver requests, and other issues do not receive staffing in the same sense as JCIDS documents, and receive FCB review in a later step. Staffing consists of the following two parallel activities:

(1) The lead FCB forms a working group from lead and supporting FCB subject matter experts from across DOD. FCB and FCB WG activities include:

(a) Performing an assessment of the document, including comparison of capability requirements within the document against existing capability requirements, development programs, and fielded capability solutions within their FCB portfolio. The assessment will also consider how the capability requirements address issues identified in the most recent CRA.

(b) Where a submitted ICD, CDD, or CPD represents an unnecessary redundancy to existing capability solutions in the Joint force, the FCB review may include:

1. Recommending non-materiel changes to partially or wholly address the capability requirements and associated capability gaps. To facilitate review of DOTmLPF-P considerations and interaction with other stakeholders, a J-7 representative will participate as a member of the Lead FCB WG, and will raise issues for discussion, as necessary, related to the DOTmLPF-P endorsement.

2. Recommending Interagency/Allied/Partner Nation collaboration to partially or wholly address the capability requirements and associated capability gaps. To facilitate review of Interagency/Allied/Partner Nation collaboration opportunities, the Lead FCB will work with representatives from J-5 and USD(AT&L) International Cooperation (IC).

(c). Updating the FCB Joint priority list to reflect the placement of the new capability requirement(s) within the FCB's portfolio.

(d) Coordinating with appropriate organizations to assure the document is reviewed for certifications and endorsements, if applicable, and any changes/comments related to the certifications or endorsements provided to the Lead FCB by the end of the initial staffing period. These include:

1. Joint Staff J-7 review and endorsement of DOTmLPF-P considerations and the Training KPP.

2. Joint Staff J-2 threat validation and intelligence certification, in accordance with reference pp.

3. J-8/DDFP weapon safety endorsement, in accordance with Appendix A and references tt and vv.

4. J-8/DDC4 review and certification of the Net-Ready KPP, in accordance with Appendix F to Enclosure B and references qq and ss.

5. Protection FCB review and endorsement of Force Protection and Survivability KPPs, in accordance with Appendices C and D to Enclosure B.

6. J-4/MXD review and endorsement of Sustainment and Energy KPPs, in accordance with Appendices E and H to Enclosure B.

(e) For SAP Issues, the lead FCB does not form a normal FCB WG for review. The SAP cleared AOs and the FCB Chairs with equity in the issue perform an initial review and then participate in a SAP Integration Group meeting to provide further review of the issue.

(2) In parallel with the FCB assessment, documents with JSDs other than Independent are available to Services, CCMDs, and other DOD Components for commenting via the KM/DS system. Comments are due by the end of the initial 21 day staffing period.

(a) Organizations/agencies making comments as part of staffing will coordinate comments through a single organizational Gatekeeper before submitting them back through the KM/DS system.

(b) When commenting on an amendment/change to a previously staffed document, organizations will address only the proposed changes and the effects directly related to the proposed changes.

(c) Comments submitted to KM/DS in response to document staffing are expected to be signed out at the GO/FO, or civilian equivalent, level.

d. Following FCB review and KM/DS staffing, the Sponsor has 30 calendar days to adjudicate comments from the FCBs, certifying or endorsing organizations, or KM/DS staffing.

(1) Comments against documents with JSDs of JROC interest and JCB Interest must be adjudicated to the satisfaction of the FCB Chair (on behalf of the JCB/JROC) and the endorsing/certifying organizations.

(2) Comments against documents with JSDs of Joint Integration must be adjudicated to the satisfaction of the Sponsor validation authority and the endorsing/certifying organizations.

(3) Comments against documents with JSDs of Joint Information must be adjudicated to the satisfaction of the Sponsor validation authority.

e Upon completion, the Sponsor uploads the revised document to the KM/DS system and provides disposition of all comments, including status of any unresolved comments, to the lead FCB for consideration/inclusion when making its validation recommendations. Revisions due to comment resolution do not cause a re-staffing of the updated document unless the lead FCB Chair deems the updated document not ready for validation, and the Sponsor resubmits a "new" document to restart the staffing process.

f. Following Sponsor comment adjudication, the FCB has 7 calendar days to review the changes, ensure certifying or endorsing organizations concur with Sponsor adjudication of comments and provide appropriate documentation to the KM/DS system or Lead FCB, and assist the FCB Chair in reaching a validation recommendation. Other issues for FCB or higher level review, such as AoAs, waiver requests, and other issues, do not receive staffing in the same sense as JCIDS documents, and begin at this step when provided to the FCB by the Gatekeeper.

(1) When submitting a positive validation recommendation for an ICD, CDD, or CPD, the FCB Chair is certifying that the capability requirements, and proposed capability solutions if applicable, articulated in the document are not unnecessarily redundant to existing capabilities in the Joint force. Positive validation recommendations will also summarize cost, schedule, and quantity parameters, as appropriate for the document.

(2) SAP documents and issues

(a) For SAP documents/issues falling primarily within a single FCB, the FCB Chair makes the validation recommendation to the JCB or JROC.

(b) For SAP documents/issues crossing several FCBs equally, or not assigned to an FCB, the SAP Integration Group Chair makes the final

validation recommendation to the JCB or JROC, with inputs from FCBs as applicable.

g. Once receiving a positive validation recommendation from the Chair of the lead FCB, validation takes no longer than 21 calendar days.

(1) The FCB Chair or Lead briefs the validation authority with any related issues for discussion, along with the recommendation for or against validation.

(2) In cases where there are no issues for discussion, and the recommendation is for validation, the FCB chair may recommend a "paper" JCB and/or JROC in lieu of a physical meeting of the validation authority.

3. Validation

a. In support of reference uuu, the validation authorities identified in this section provide validation that:

(1) The capability requirements and proposed IOC/FOC for capability solutions meet the national military strategy and the needs of the CCMDs.

(2) The capability requirements are prioritized and do not represent unnecessary redundancy in capabilities across the Joint force.

(3) Capability solutions have had appropriate consideration of tradeoffs between cost, schedule, and performance.

(4) Estimated resource levels required to satisfy the capability requirement are consistent with the priority of the capability requirement.

b. Validation Authority

(1) The JROC is the validation authority for all documents that have a JSD of JROC Interest.

(a) The JROC may assert itself as the validation authority for any document of any assigned JSD at any time by directing the Gatekeeper set the JSD to JROC Interest.

(b) As an advocate for DOTmLPF-P considerations during validation discussions, DJ-7 or designee will be present for JROC discussions.

(c) The JROC may validate a document through a "Paper JROC" without physically convening, when the FCB and JCB Chairs recommend validation and there are no issues for JROC discussion.

(2) The JCB is the validation authority for all documents that have a JSD of JCB Interest.

(a) The JCB may assert itself as the validation authority for any document with a JSD other than JROC Interest at any time by directing the Gatekeeper set the JSD to JCB Interest.

(b) As an advocate for DOTmLPF-P considerations during validation discussions, VDJ-7 or designee will be present for JCB discussions.

(c) The JCB may validate a document through a "Paper JCB" without physically convening, when the FCB Chair recommends validation and there are no issues for JCB discussion.

(3) The Sponsor is the validation authority for all documents given a JSD other than JROC Interest or JCB Interest.

4. Validation Documentation. Validation decisions by the JROC or JCB are provided via JROCM, are signed by the JROC Chairman or designee, and are uploaded to the KM/DS system for recordkeeping. Validation decisions by Sponsors and final versions of all validated requirement documents are uploaded to the KM/DS system for information purposes and visibility in the JCA portfolios.

(1) Consistent with the type of document being validated, positive validation decisions will summarize the cost, IOC/FOC schedule, and quantity.

(2) Sponsorship of a document may change as a result of Joint staffing, upon the recommendation of the lead FCB and positive validation decision.

(3) Any changes made which relate directly to the substance of the document – KPPs, cost, schedule, and/or quantity – render the document invalid for the purpose of any follow-on processes until revalidated by the validation authority.

(4) The validation authority may rescind a previous validation and/or direct changes to or re-staffing of a validated document at any time. The validation authority will notify the document Sponsor in writing, with rationale for the rescission.

APPENDIX A TO ENCLOSURE D

GUIDE FOR THE WEAPON SAFETY ENDORSEMENT

1. Purpose

a. This guide provides policy and procedures for the JWSTAP, established in accordance with reference tt and formally chartered in reference vv, to advise the J-8/DDFP on weapon safety issues during the review and validation of all weapon-related JCIDS documents.

b. This guide also provides the policies and procedures for the development of a weapon safety endorsement (WSE) of weapons-related capabilities documents. The endorsement ensure that JCIDS documents adequately address the weapon safety capabilities and attributes necessary for the safe handling, storage, transportation, or use in joint operating environments.

2. JWSTAP

a. The JWSTAP serves as the J-8/DDFP's weapons safety advisory staff and reviews weapons programs identified with JSDs of JROC Interest, JCB Interest, Joint Integration, or Joint Information. The JWSTAP may also review other weapons related JCIDS documents when requested by the J-8/DDFP or the Sponsor.

b. These reviews will focus on capability attributes and metrics to identify potential safety issues resulting from interactions between the proposed weapon and the joint operating environment. Reviews will address handling, packaging, transportation, assembly, disassembly, maintenance, testing, storage, and use of the weapon system. The JWSTAP, based on the information provided in the JCIDS document under review, accomplishes the following:

(1) Identifies potential safety issues associated with the proposed capability in joint warfighting environments.

(2) Develops recommended revisions to the document language to reduce or eliminate the identified safety concerns while maintaining the desired operational effectiveness.

(3) Advises the J-8/DDFP and FCBs in support of a JROC review of the JCIDS document.

b. The JWSTAP provides to the J-8/DDFP a WSE recommendation for each reviewed program. A WSE is the means for documenting that the language in weapons-related JCIDS documents provides for safe integration into joint

operating environments and may also identify potential operational limits due to potential hazards when the weapon is handled, stored, transported, assembled, disassembled, maintained, tested, or used in the joint operating environment.

c. The JWSTAP also provides subject matter expertise to Sponsors for review of weapons program draft JCIDS documents prior to formal submission to the JCIDS validation and approval process.

3. JWSTAP Review Process

a. The JWSTAP safety review is a "top down" review that is primarily focused on the safety of a weapon operating in joint operating environments. The output of this review is a WSE recommendation memorandum deliverable to the J-8/DDFP.

b. The JWSTAP safety review may also generate comments on the safety of the weapon in a stand-alone, single Service environment or may generate more detailed type comments. These comments become a second deliverable by the JWSTAP to the J-8/DDFP, resulting from the safety review.

c. In order to review documents from a joint warfighting perspective, reviewers must understand the applicable CONOPS. This can be accomplished by reviewing the DODAF architecture views referenced in the JCIDS document. Reviewers can also gain greater understanding of the CONOPS by referring to the ISP associated with the program, which defines the system operation, the interfaces, the environment, and the support required. ISPs are located in the Joint Capabilities Program Assessment Tool (JCPAT) at the location shown in reference vvv.

d. The JWSTAP safety review considers a set of review criteria relative to the joint operating environment. A partial list of these criteria is shown in Table D-A-1, with the expectation that additional criteria may be added as the process matures.

Partial List of JWSTAP Safety Review Criteria in Joint Operating Environments	
• Joint and Service unique safety requirements • Joint CONOPS • Interoperability • Transportation • Handling • Assembly • Disassembly • Maintenance • Testing • Use • Insensitive Munitions • Storage	• Hazards of Electromagnetic Radiation Ordnance (HERO) • E3 • Explosives Ordnance Disposal • Demilitarization/disposal • Software safety • ESOH • Future CONOPS possibilities • HSI • Coalition factors • Cultural factors

Table D-A-1. Safety Review Criteria

e. The JWSTAP shall strive for a unanimous position on formal JCIDS document reviews. In the event the JWSTAP cannot achieve agreement, the Chair may request a vote in order to resolve the matter. Each JWSTAP member shall have one vote. In the case of a tie, the JWSTAP Chair shall cast the deciding vote. If a JWSTAP position is established by majority vote, the minority opinion and rationale will be documented in the WSE recommendation memorandum submitted to the J-8/DDFP.

f. To document the results of the JWSTAP safety review, the JWSTAP Chair or Deputy provides a WSE recommendation memorandum to the J-8/DDFP, through the Chief, Force Protection Division, Joint Staff J-8 (J-8/FPD). The memorandum will recommend one of the following:

(1) WSE be granted.

(2) WSE with limitations be granted.

(3) WSE be withheld.

g. In cases where the recommendation for a WSE is withheld or granted with limitations, the JWSTAP Chair will consolidate the suggested changes and the rationale and provide as two enclosures:

(1) Enclosure (1) to the WSE recommendation memorandum, entitled "JWSTAP Concerns," provides the JWSTAP's concerns with the JCIDS document under review in narrative format with supporting rationale.

(2) Enclosure (2) to the WSE recommendation memorandum, entitled "Comment Resolution Matrix (CRM)" provides the specific language to be incorporated in the document under review to eliminate the JWSTAP's safety concerns. The J-8/DDFP will enter the recommendations and the supporting rationale into the KM/DS system for staffing.

h. Safety Review Guidelines and Timelines. The JWSTAP safe weapons review will be conducted within the 21 day staffing timeline for JCIDS document reviews as outlined in this Manual. See Figure D-A-1.

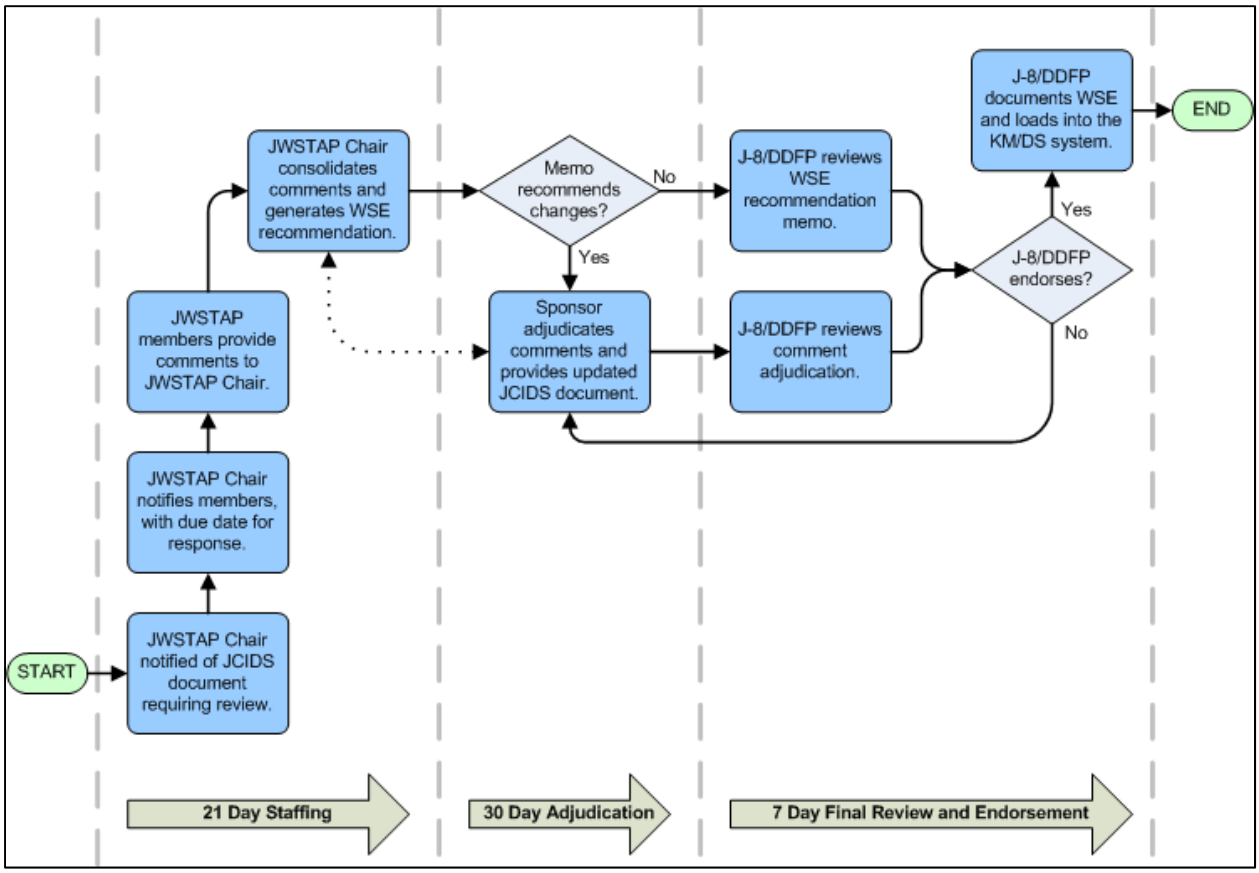

Figure D-A-1. JWSTAP WSE Process and Timeline

4. Functional Responsibilities. (To be consolidated in CJCSI 5123.01 upon next revision)

a. The JWSTAP members shall:

(1) Establish a SIPRNET account for email and to access the KM/DS system to facilitate reviews and comment submission as part of the JCIDS document review process. See reference c for access to the KM/DS system.

(2) Serve as a source of expert consultation for program sponsors and the J-8/DDFP regarding weapon safety within joint operating environments, and will collaborate with program sponsors and the J-8/DDFP to develop possible solutions to safety issues. Consultation in the development and review of draft JCIDS documents may be both prior to formal submittal into the JCIDS process and during the staffing process.

(3) Meet at the request of the JWSTAP Chair to conduct technical safety reviews of weapons related JCIDS documents, discuss items of mutual interest, develop WSE recommendations, and recommend policies and priorities to the J-8/DDFP related to the WSE process.

(4) Review JCIDS documents at the request of the JWSTAP Chair, to ensure weapon safety is addressed with respect to provisions for safe packaging, storage, handling, transport, assembly, disassembly, maintenance, testing, and use within the joint operating environment. Reviews shall include DCRs to ensure that non-materiel solutions using an existing system do not introduce new safety issues, hazards, or risk as a result of the proposed changes.

(5) Consult with subject matter experts (SMEs) within their respective Services or organizations to develop safety comments which represent a Service/organization-wide, technically sound, well-reasoned position.

(6) Submit to the JWSTAP Chair, via the SIPRNET and using a standard CRM, the suggested changes to be incorporated in the JCIDS document that will eliminate or mitigate the safety concerns. In accordance with the CRM, the JWSTAP members shall identify the comment type (critical, substantive, or administrative) and rationale for each suggested change to the JCIDS document. Comments will be submitted by the suspense date specified by the JWSTAP Chair.

b. The JWSTAP Chair shall:

(1) Establish guidelines to govern operation of the JWSTAP.

(2) Establish procedures to rotate the JWSTAP Chair among the JWSTAP member organizations in accordance with reference vv. The JWSTAP

Chair shall serve a 12-month term of service, and may rotate among member organizations of the JWSTAP.

(3) Serve as the primary JWSTAP point of contact for parties external to the JWSTAP.

(4) Notify members, via NIPRNET, when a formal JCIDS document review is required and will assign a review suspense date to ensure that a JWSTAP WSE recommendation is provided to the J-8/DDFP within established timeframes for staffing JCIDS documents.

(5) Incorporate the submitted comments and their rationale from all JWSTAP members into a master CRM. This master CRM serves as an enclosure to the WSE recommendation memorandum.

(6) Develop and provide to the J-8/DDFP a WSE recommendation for each weapon related JCIDS documents.

(7) Maintain all records of the JWSTAP review process and results in a JWSTAP safety review process archive.

5. Organizational Responsibilities. (To be consolidated in CJCSI 5123.01 upon next revision)

a. The J-8/DDFP shall:

(1) Oversee implementation of the JWSTAP organization and processes.

(2) Establish the JWSTAP comprised of members from OSD, the Military Services, and Combatant Commands.

(3) Provide criteria, guidance, and instructions to incorporate weapons safety criteria in appropriate DOD program acquisition and budget documents.

b. The Chief, J-8/FPD shall:

(1) Prepare appropriate content as needed to provide specific policy and standards for the JWSTAP and the WSE process for inclusion in this guide.

(2) Inform the JWSTAP Chair within three days after initial posting of JCIDS document requiring a WSE.

(3) Appoint a J-8/FPD representative to the JWSTAP.

(4) Recommend the necessary resources and support planning, programming, and budgeting processes for the JWSTAP.

(5) Advise the J-8/DDFP on appropriate DOD-wide goals, objectives, and performance metrics for the JWSTAP.

(6) Conduct a formal management review of the WSE process and JWSTAP activities at least annually.

c. The Military Services and the Combatant Commanders shall:

(1) Ensure that DOD systems safety policy is incorporated when drafting weapons-related JCIDS documents.

(2) Appoint professionally qualified weapon safety representatives to the JWSTAP.

(3) Provide management support, resources, and funding to ensure effective safety reviews of weapons related JCIDS documents.

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ATTACHMENT A TO APPENDIX A TO ENCLOSURE D

EXAMPLE JWSTAP WEAPON SAFETY ENDORSEMENT RECOMMENDATION MEMORANDUM

8020
Ser N3/XXX
<Date>

MEMORANDUM FOR RECORD

From: Chair, Joint Weapon Safety Technical Advisory Panel

To: Deputy Director, Force Protection, J-8

Subj: WEAPON SAFETY ENDORSEMENT RECOMMENDATION: JOINT AIR-TO-AIR KINETIC KILL WEAPON (JAAKKW) CPD Review

Ref: (a) JROCM 102-05 of 20 May 05, Safe Weapons in Joint Warfighting Environments
(b) Capability Production Document for the Joint Air-To-Air Kinetic Kill Weapon (JAAKKW) Version 1.0, Dated 4 Aug 08

Encl: (1) Joint Weapon Safety Technical Advisory Panel Concerns with the Capability
Production Document for the Joint Air-To-Air Kinetic Kill Weapon (JAAKKW) Version 1.0, dated 4 Aug 08
(2) JWSTAP Concerns with the Capability Production Document for the Joint Air-To-Air Kinetic Kill Weapon (JAAKKW) Version 1.0, dated 4 Aug 08
(3) Comment Resolution Matrix for the JWSTAP_JAAKKW CPD Version 1.0 Review

1. In accordance with reference (a), the Joint Weapon Safety Technical Advisory Panel (JWSTAP) conducted a safety review of reference (b) which is the Capability Production Document (CPD) for the Joint Air-To-Air Kinetic Kill Weapon (JAAKKW) Version 1.0 dated 4 Aug 08. Based on this review, the JWSTAP recommends that a Weapon Safety Endorsement (WSE) for the JAAKKW be withheld until the JWSTAP concerns discussed in enclosure (1) have been resolved. Enclosure (2) is a Comment Resolution Matrix that provides the specific wording to address the enclosure (1) concerns. Enclosure (2) also addresses administrative concerns.

Subj: WEAPON SAFETY ENDORSEMENT: JOINT AIR-TO-AIR KINETIC KILL WEAPON (JAAKKW) CPD Ph1 Review

2. Upon resolution of the JWSTAP concerns, the JWSTAP will provide a recommendation for a WSE. The JWSTAP point of contact is <name> at comm. <(123) 456-7891>; DSN <555-7891>; or email <email address>.

<Signature>
<Name of JWSTAP Chair>

Copy to:
FA FCB (Code/Name)
Sponsor (Code/Name)
Joint Staff (J8/FPD; <name>)
JWSTAP Members

JWSTAP Concerns with the Joint Air-To-Air Kinetic Kill Weapon (JAAKKW) CPD Ph1

1. Confusion in the platforms that will carry the JAAKKW. The Revision History section, page 6, of the CPD states that the XYZ Aircraft is to be an objective platform, but there is no mention of that as an objective in the document. Specifically, paragraph 1.5, titled "Capability Delivered," lists the ABC Aircraft as an objective aircraft but does not list the XYZ Aircraft as a follow-on objective. The ABC aircraft would carry and launch this weapon on an external weapon station, while the XYZ aircraft would carry and launch this weapon from a station that is internal to the aircraft. CPD clarity is required since the System Safety Program (SSP) needs to address the potential safety issues associated with JAAKKW and the launch aircraft as a unified system. The SSP will fail to address the JAAKKW and the XYZ Aircraft as a system if the XYZ Aircraft is not included as an objective. Failure to include the XYZ Aircraft as an objective aircraft may result in safety issues unique to the JAAKKW and XYZ Aircraft going undetected and may require corrective actions at a later time.

2. The failure to address requirements for Organizational-Level (O-Level) maintenance. Although O-Level is addressed there is no mention of the support that is necessary such as inspection lists, safeguards, and training. Support needs to be addressed to ensure that O-Level maintenance can be effectively conducted.

3. Lack of an SSP. Safety is discussed in paragraph 15.1, but system safety is not discussed. There is no evidence that a comprehensive SSP has been conducted and no evidence that one is planned. DoD Directive 5000.1 requires that safety be addressed throughout the acquisition process. USD(ATL) Memo Subj: Defense Acquisition System Safety – Environment, Safety, and Occupational Health (ESOH) Risk Acceptance of 7 Mar 07 requires programs, developing solutions to this CPD, to establish an SSP in accordance with MIL-STD-882D.

4. Failure to address the need for Explosives Ordnance Disposal (EOD). The CPD does not address the need for EOD. EOD needs to be addressed in accordance with DoD Directive 5160.62 to ensure EOD plans are in place when the need arises to dispose of dudded rounds.

Enclosure (1)

UNCLASSIFIED
JAAKKW CPD Version 1 Review CRM
Suspense Date: 10 July 20XX

Org / Reviewer	Page #	Para #	Line #	Class (U,C,S)	Type (A,S,C)	Recommendation	Rationale	Comment
Name of Defense Activity Code (eg. Nxl) John Doe DSN: 354-xxxx john.doe@navy.mil	6	1.5	378	U	S	The next to last sentence in paragraph 1.5 reads: "Follow-on **objective** platforms are the ABC Aircraft." Change it to read: "Follow-on **objective** platforms are the ABC Aircraft and the XYZ Aircraft.	The executive summary says that the XYZ Aircraft is to be an objective platform, but there is no mention of that as an objective in the document.	
Name of Defense Activity Code (eg. Nxl) John Doe DSN: 354-xxxx john.doe@navy.mil	39	14.2.1.1	1395	U	S	Insert the following sentence at the end of paragraph 14.2.1.1: "Inspection lists will be developed, safeguards procured, and training conducted for the safe conduct of O-Level maintenance.	Inspections are required to detect safety hazards such as leaking fuel and other hazardous situations.	
Name of Defense Activity Code (eg. Nxl) John Doe DSN: 354-xxxx john.doe@navy.mil	43	15.1	1550	U	S	At the end of paragraph 15.1 add a new paragraph 15.2 and renumber the subsequent paragraphs. The new paragraph 15.2 reads: "15.2 DoD Directive 5000.1 of 12 May 03, (The Defense Acquisition	Although safety is discussed in paragraph 15.1 system safety is not discussed. There is no evidence that a comprehensive System Safety	

UNCLASSIFIED

Enclosure (2)

UNCLASSIFIED
JAAKKW CPD Version 1 Review CRM
Suspense Date: 10 July 20XX

				System) and USD(AT&L) Memo Subj: Reducing Preventable Mishaps of 21 Nov 06 require that safety be addressed throughout the acquisition process. USD(AT&L) Memo Subj: Defense Acquisition System Safety – Environment, Safety, and Occupational Health (ESOH) Risk Acceptance of 7 Mar 07 requires programs, developing solutions to this CPD, to establish a System Safety Program (SSP), in accordance with (IAW) MIL STD 882D of 10 Feb 2000, "DoD Standard Practice for System Safety." The SSP must be documented in a Systems Safety Program Plan (SSPP) and must extend through the full program life cycle. To achieve a successful solution, the JAAKKW program shall identify hazards for all interfacing systems and	Program (SSP) has been conducted and no evidence that one is planned. DoD Directive 5000.1 (The Defense Acquisition System) of 12 May 03 require that safety be addressed throughout the acquisition process.	

UNCLASSIFIED

Enclosure (2)

UNCLASSIFIED
JAAKKW CPD Version 1 Review CRM
Suspense Date: 10 July 20XX

					SoS and address these hazards in the SSP. All hazards and their resolutions, identified by the SSP will be documented in a hazard tracking system, which shall be maintained throughout the life of the program. The risk associated with any residual hazards must be accepted by the designated approving authority IAW DoD Instruction 5000.2 of 12 May 03, "Operation of the Defense Acquisition System." All hazards and their resolutions, identified by the SSP will be documented in a hazard tracking system, which shall be maintained throughout the life of the program. The risk associated with any residual hazards must be accepted by the designated approving. In addition, USD(ATL) Memo	

UNCLASSIFIED

Enclosure (2)

UNCLASSIFIED
JAAKKW CPD Version 1 Review CRM
Suspense Date: 10 July 20XX

						Subj: Defense Acquisition System Safety – Environment, Safety, and Occupational Health (ESOH) Risk Acceptance of 7 Mar 07 requires that the user representative provide formal concurrence prior to all serious and high risk acceptance decisions."		
Name of Defense Activity Code (eg. Nx) John Doe DSN: 354-xxxx john.doe@navy.mil	43	15.1.2	1551	U	S	At the end of paragraph 15.1.2 add a new paragraph 15.1.3 to read: "15.1.3 The JAAKKW Program shall coordinate with the Explosive Ordnance Disposal (EOD) research, development, test and evaluation (RDT&E) authority in accordance with DODD 5160.62 of 21 Nov 03, [Single Manager Responsibilities for Military Explosive Ordnance Technology and Training (EODT&T)]."	Requirement of DODD 5160.62. The CPD does not address EOD.	

UNCLASSIFIED

Enclosure (2)

UNCLASSIFIED
JAAKKW CPD Version 1 Review CRM
Suspense Date: 10 July 20XX

Name of Defense Activity Code (eg. Nx) John Doe DSN: 354-xxxx john.doe@navy.mil	0	0	0	U	A	Recommend that the following references be added to Appendix B – References: DoD Directive 5000.1, "The Defense Acquisition System" of 12 May 03 DoD Instruction 5000.2, "Operation of the Defense Acquisition System" of 12 May 03 USD(ATL) Memo Subj: Reducing Preventable Mishaps of 21 Nov 06 USD(ATL) Memo Subj: Defense Acquisition System Safety – Environment, Safety, and Occupational Health (ESOH) Risk Acceptance of 7 Mar 07 MIL-STD-882D, "Department of Defense Standard Practice for System Safety" of 10 Feb 2000	Required references	General comment
Name of Defense Activity Code (eg. Nx) John Doe DSN: 354-xxxx john.doe@navy.mil	0	0	0	U	A	Define acronyms at first use. Many acronyms in the CPD are not defined when they are first used.	Clarity	General comment

UNCLASSIFIED

Enclosure (2)

ENCLOSURE E

URGENT/EMERGENT STAFFING PROCESSES

1. Overview. This Enclosure provides the overview of the JCIDS urgent/emergent staffing processes. Depending upon the nature of the urgent/emergent capability requirement, two staffing paths may be used. See Figure E-1.

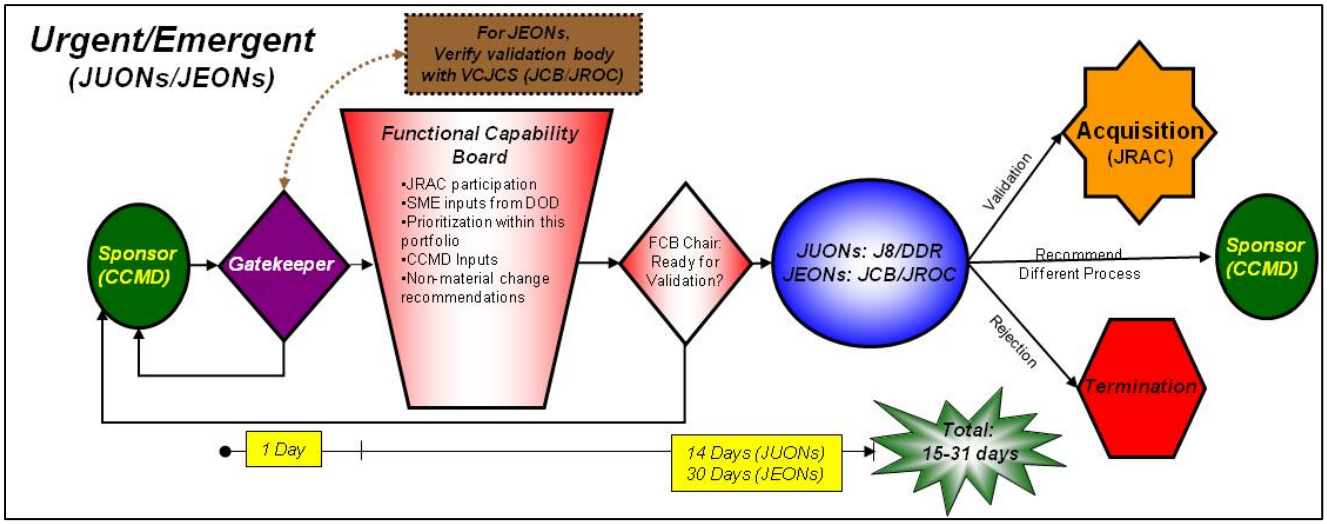

Figure E-1. Urgent/Emergent Staffing Overview

a. The Urgent staffing processes allow validation of capability requirements related to ongoing contingency operations, which if not satisfied in an expedited manner, would result in unacceptable loss of life or critical mission failure.

(1) JUONs are reviewed and validated in accordance with this Enclosure. Staffing of a JUON for validation takes no more than 15 calendar days. Requests for extensions to staffing timelines may be submitted to the Gatekeeper on a case-by-case basis. Staffing metrics will be updated to identify the source of the staffing delay.

(2) DOD Component UONs are reviewed and validated by a Sponsor validation authority, in accordance with references o through u. After validation, copies of the Sponsor validated UONs are submitted to the KM/DS system for information and visibility into the JCA portfolios.

b. The Emergent staffing process, allows validation of capability requirements related to anticipated contingency operations, which if not satisfied in an expedited manner, would result in unacceptable loss of life or critical mission failure once operations commence.

(1) JEONs are reviewed and validated in accordance with this Enclosure. Staffing of a JEON for validation takes no more than 31 calendar days. Requests for extensions to staffing timelines may be submitted to the Gatekeeper on a case-by-case basis. Staffing metrics will be updated to identify the source of the staffing delay.

(2) There is no DOD Component variant for staffing and validation, as non-Joint UON processes may handle capability requirements for both ongoing and anticipated contingency operations.

c. Once validated, JUONs, JEONs, and DOD Component UONs allow initiation of rapid acquisition activities to develop and implement capability solutions in a shorter timeframe than typical of deliberate DAS processes. These rapid acquisition activities may also include expedited procurement of COTS/GOTS/NDI solutions, or modification/acceleration of existing development programs initiated under the Deliberate process. Specific acquisition process to be followed for each validated capability requirement will be determined by the MDA.

(1) The Urgent process addresses efforts that are anticipated to occur from present to a point two years in the future from the date of submission.

(2) The Emergent process addresses efforts that are anticipated to occur from the present to a point five years in the future from the date of submission.

d. All documents undergoing staffing are considered “draft” until validated by the validating authority.

2. Staffing

a. JUON and JEON staffing begins when the Gatekeeper receives the document from the Sponsor.

b. The Gatekeeper has one day to perform initial review.

(1) Following confirmation that the JUON meets the appropriate entry criteria, JUONs are assigned directly to a Lead FCB for review.

(2) JEONs are first confirmed by the VCJCS, via the Gatekeeper and DJ-8, due to the unique nature of capability requirements associated with anticipated contingency operations. The VCJCS will also identify the validation authority as the JCB or JROC. Once the VCJCS provides confirmation that the JEON may use the emergent process, JEONs are assigned to a Lead FCB and JRAC for collaborative review.

c. The Lead FCB, in collaboration with the JRAC. will assess the validity of the JUON or JEON and identify potential solution approaches which could satisfy the capability requirement in the requested timeframe.

(1) In addition to considering off-the-shelf COTS/GOTS/NDI solutions or rapid development efforts, the Lead FCB and JRAC review will identify any related JUONs, ICDs, CDDs, and CPDs, and the potential to deploy early prototypes from existing acquisition programs or S&T efforts as a rapid means to address the JUON.

(2) Identification of a potential solution approach is a desired but not required outcome, as the ultimate approach to fulfilling the JUON or JEON will be determined following the requirement validation process. Staffing a JUON will not be unnecessarily delayed to assess potential solutions.

(3) The Lead FCB also updates the FCB Joint prioritization to reflect the placement of the new capability requirement(s) within the priority list already established for the FCB's portfolio.

d. At the end of their assessment, the Chair of the lead FCB, along with a representative from JRAC, makes a recommendation to the validation authority either for or against validation.

3. Validation

a. In support of reference uuu, the validation authorities identified in this section provide validation that:

(1) The capability requirements and proposed IOC/FOC for capability solutions meet the national military strategy and the needs of the CCMDs.

(2) The capability requirements are prioritized and do not represent unnecessary redundancy in capabilities across the Joint force.

(3) Capability solutions have had appropriate consideration of tradeoffs between cost, schedule, and performance.

(4) Estimated resource levels required to satisfy the capability requirement are consistent with the priority of the capability requirement.

b. Validation Authority. The J-8/DDR is the validation authority for JUONs. The JCB or JROC, as designated by the VCJCS, is the validation authority for JEONs. The validation authority will make one of the following decisions:

(1) Validate the JUON/JEON. In addition to the validations outlined above, the validation authority validates that the urgency of satisfying the identified capability requirements to support ongoing or anticipated contingency operations precludes the use of the deliberate requirements validation process. Validation of the JUON/JEON allows the JRAC to proceed with assigning a solution Sponsor to rapidly fund, develop, and field a capability solution.

(2) Validate part of the JUON/JEON. If it is clear that the Sponsor's capability requirement is best validated through a mix of urgent and deliberate requirements validation processes, the validation authority will validate part of the capability requirement as a JUON/JEON, and recommend the Sponsor re-submit the remainder of the capability requirement for validation in the deliberate requirements validation process.

(3) Reject the JUON/JEON. If the JRAC, FCBs, and/or validation authority anticipate technology challenges or other issues which would prohibit the fielding of a militarily useful solution in an appropriate timeline, or if the validation authority determines that the criteria for being a JUON/JEON are not met, the validation authority will reject the capability requirement with recommendation that the Sponsor accept risk, adopt a non-materiel approach, or pursue the capability requirement through the deliberate requirements validation process.

4. Validation Documentation

a. Validated capability requirements are communicated from the validation authority to the Director of JRAC, via email for JUONs and memorandum for JEONs, identifying:

(1) Requestor and general overview of the capability requirement.

(2) Recommended Solution Sponsor. This is the agency proposed to be responsible for funding, developing, and fielding the capability solution, in support of the Requirement Sponsor.

(3) Cost. Estimated costs associated with this validation, including sustainment costs for the period of anticipated use.

(4) Schedule. Specifies the latest allowable fielding date for the capability solution. If a phased fielding is specified, the memo will break the validation into phases, and provide cost, schedule, performance, and quantity levels for each phase.

(5) Performance. Minimum acceptable performance, in terms of the capability requirements and capability gaps being addressed.

(6) Quantity. Estimated quantity of items necessary to address the capability requirement, including quantities for training and spares, below which the Sponsor's request is no longer relevant/militarily significant, e.g., request 10 vehicles when 9 will not constitute a credible force.

b. If the JUON/JEON is not validated, the validation authority sends a memorandum to the Sponsor. There is no Sponsor appeal process if a denial has been issued.

c. Validation decisions will be uploaded to the KM/DS system for archival purposes and to facilitate access to documentation for statutory reporting purposes.

d. Any changes made which relate directly to the substance of the validation - performance, cost, schedule, and/or quantity - render the document invalid for the purpose of any follow-on processes until revalidated by the validation authority.

e. The validation authority may rescind a previous validation and/or direct changes to or re-staffing of a validated document at any time. The validation authority will notify the document Sponsor in writing, with rationale for the rescission.

5. Validation Review. Unless withdrawn earlier by the validation authority or requirement Sponsor, or supported by an assessment for transition to enduring capability requirements or limited duration sustainment, validated JUONs and JEONs require review by the validation authority two years after the validation date. This ensures that the urgent capability requirements remain valid, or facilitates transition to the deliberate acquisition processes if appropriate. A similar review process for validated DOD Component UONs may be used at the discretion of the Sponsor validation authority.

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ENCLOSURE F

POST-VALIDATION PROCESSES AND INTERACTIONS

1. Joint DCR Implementation

a. Overview. The KM/DS system is used to maintain a repository of all Joint DCRs, and to track, monitor, and adjudicate action items and associated suspense dates. The Joint DCR module of the KM/DS tool will provide total visibility on all efforts to achieve the included capabilities. Status updates will be provided periodically by the respective Lead FCB.

b. Implementation Activities

(1) Joint DCR validation includes designation of a lead organization for implementation of the approved actions. Such organizations, in conjunction with the corresponding Gatekeeper-designated Lead FCB, will provide oversight sufficient to ensure completion of each action by the specified suspense date.

(2) The lead organization and the lead FCB work together to create an implementation plan to address the tasks identified in the validated Joint DCR within the timeline delineated in the validation JROCM. The lead organization, with the support of the FCBs, ensures that each task is completed in accordance with the timeline, and provides status of, and visibility into, the process to senior leaders. The lead organization, with the support of the FCBs, also makes recommendations to the validation authority for modifications to existing timelines, as needed, based upon the synchronization of tasks.

(3) The FCBs are responsible for coordinating assigned tasks with the designated lead organization via existing FCB processes and for providing periodic updates on their progress to the GO/FO Integration Group. If unresolved issues occur, and cannot be adjudicated at the GO/FO Integration Group, the JCB and/or JROC will provide resolution.

2. Acquisition

a. Initiation of Deliberate or Rapid Acquisition

(1) Deliberate acquisition begins when an appropriate MDA considers, along with other appropriate information, a validated ICD, CDD, or CPD document, identifying one or more capability requirements which may be best addressed with a new materiel capability solution, and documents a positive MDD in an Acquisition Decision Memorandum (ADM) accordance with references mm and xx. The ADM may also direct the appropriate starting phase for acquisition efforts depending upon the maturity of potential capability solutions for the validated capability requirements.

(2) Rapid acquisition begins when the Director of JRAC considers, along with other appropriate information, a validated JUON or JEON, identifying one or more capability requirements associated with ongoing or anticipated contingency operations, and directs a solution Sponsor to begin developing a plan to fund and field a suitable capability solution in a timely manner. Activities in support of JUONs, JEONs, and DOD Component UONs have a conceptually similar approach, but with some activities abbreviated or eliminated to facilitate rapid fielding. Handling of JUONs and JEONs are outlined in this enclosure, and handling of DOD Component UONs are outlined in references o through u.

(3) Acquisition of IS capability solutions may be managed using alternative documentation and delegated approval authorities which allow deviation from the acquisition stages described in this section. See Enclosure B for the IS ICD and examples of alternative documentation which might be used for acquisition of IS.

(4) Changing KPPs After Validation. In cases where it is necessary to change validated KPPs, such as for cost, technology, production, development, or other issues that prevent meeting the threshold of the KPP, the Sponsor may request changes to the previous validation by contacting the Gatekeeper. In some cases, the original validation will specify if there is a delegated validation authority for post-validation KPP or KSA changes.

b. Materiel Solution Analysis (MSA) Phase. (DAS Activity)

(1) Nominal process

(a) During this acquisition phase, the validated ICD guides the Sponsor assessment of potential materiel solutions through an AoA or other studies, identifies associated DOTmLPF-P changes, and develops other acquisition materials required for the MS A review. See Figure F-1.

(b) For programs of JROC or JCB Interest, the appropriate FCBs review the AoA and recommended alternative, and together with the Sponsor, brief the JCB or JROC on the AoA recommendations and FCB assessment to facilitate the JCB or JROC providing informed advice to the MDA on the best approach to satisfy the capability requirement(s).

(c) The FCB review of these MSA results shall be completed in sufficient time to permit preparation of a draft CDD, not submitted to JCIDS for validation at this time, to inform the TDS and the RFP for the Technology Development Phase.

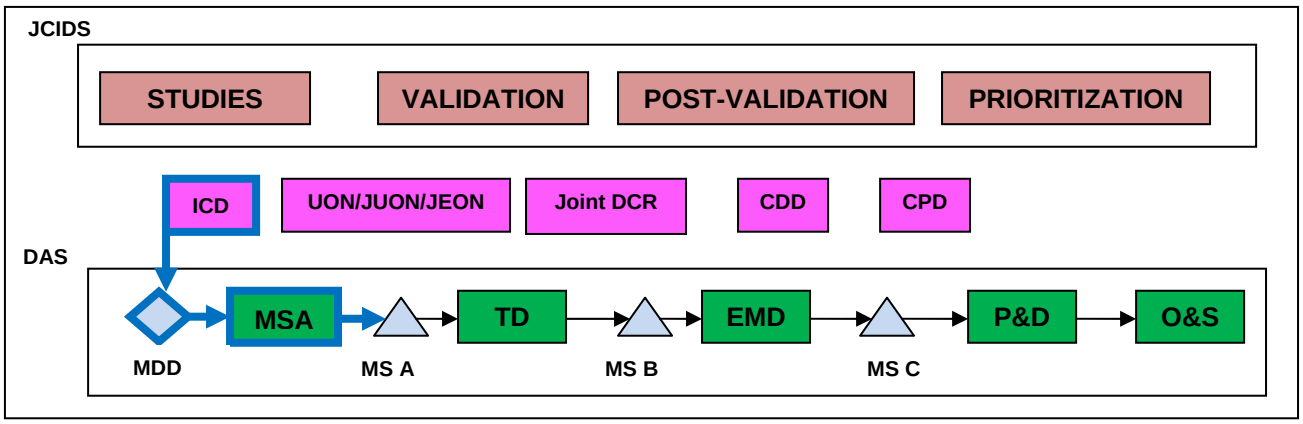

Figure F-1. MSA Phase

(2) Variation for entry at MS A, B, or C. The MSA phase may be abbreviated or eliminated if the MDA directs in a MDD that further development of a capability solution may start directly at MS A, B, or C. This is more likely in cases where the Sponsor leverages assessments of operational utility or other documentation of demonstrated capability solutions which may need only limited development to satisfy the capability requirement under review.

(3) Variation for Urgent/Emergent Processes

(a) For validated JUONs and JEONs, the JRAC and Sponsor perform expedited activities similar to an AoA to assess what existing solutions and technologies, or limited scope development efforts, can satisfy some or all of the capability requirements in the appropriate timeframe. The resulting funding/fielding plan is then validated by the Director of the JRAC or the Senior Integration Group (SIG) for execution by the requirement Sponsor, or by a SIG designated solution Sponsor in accordance with reference www. The SIG validated funding/fielding plan allows reprogramming of funds as directed to initiate or accelerate acquisition for a rapidly fielded capability solution to address CCMD requirements.

(b) For validated DOD Component UONs, the Sponsor performs similar analysis and validation of potential solutions and funding plans in accordance with references o through u. Within Sponsor fiscal authorities, the Sponsor validated funding/fielding plan allows reprogramming of funds as necessary to initiate or accelerate acquisition for a rapidly fielded capability solution to address Sponsor requirements.

(c) Due to the short timeline for JUONs, JEONs, and DOD Component UONs, and the resulting rapid acquisition of COTS/GOTS/NDI solutions or very limited development efforts, most of these cases will proceed directly to procurement and fielding of solutions without the intermediate

development phases, and without the need to develop and validate any of the other associated JCIDS documents.

(d) Validated JUONs and JEONs are reviewed quarterly by the Gatekeeper and the JRAC to assess progress toward fielding capability solutions in a timely manner. If a JUON or JEON is not making satisfactory progress toward a capability solution for technology development reasons, a recommendation for withdrawal of the JUON or JEON validation may be initiated by the requirement Sponsor, JRAC, or validation authority. Where appropriate, the withdrawal of the validation by the validation authority will include a mutually agreed to recommendation for an appropriate point in the deliberate process to initiate a deliberate development effort.

c. Technology Development (TD) Phase. (DAS Activity)

(1) Nominal process

(a) During this acquisition phase, the validated ICD, results of AoA or similar study, and draft CDD, inform Sponsor technology maturation activities such as the building and evaluation of competitive prototypes, and refinements to user capability requirements, leading up to a preliminary design review (PDR).

(b) By the end of the TD phase, the draft CDD is updated as required, and specifies the operational technical performance attributes of the proposed capability solution that closes one or more capability gaps identified in an ICD, and is resubmitted to the JCIDS process for staffing and validation prior to the pre-EMD review leading up to a MS B decision by the MDA. See Figure F-2.

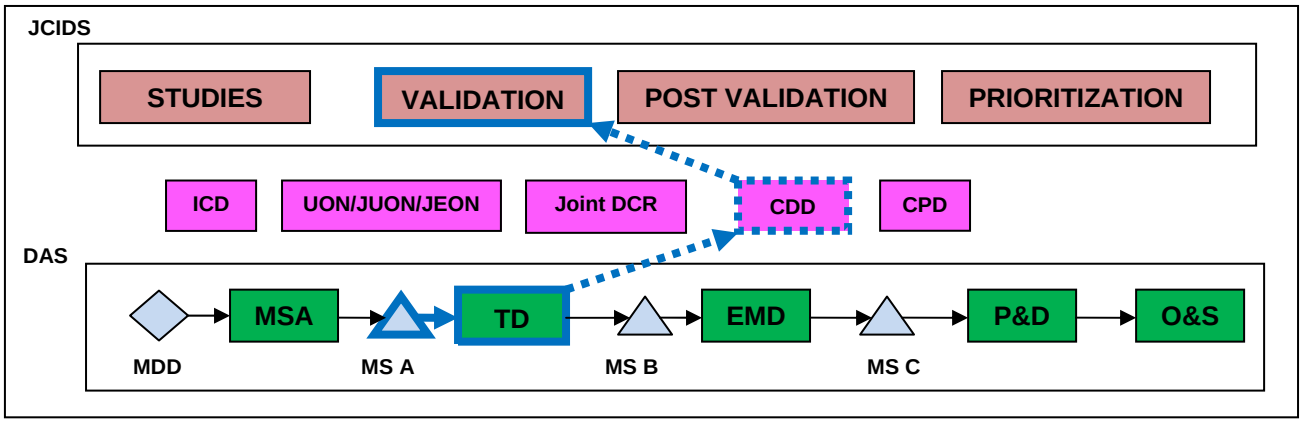

Figure F-2. TD Phase and Draft CDD

(2) Variation for entry at MS B or C. The TD phase may be abbreviated or eliminated if the MDA directs in a MDD that development of a capability

solution may start directly at MS B, or C. This is more likely for transitioning JUONs, JEONs, or in other cases where the Sponsor leverages assessments of operational utility or other documentation of demonstrated capability solutions which may need only limited development to satisfy the capability requirement.

d. Staffing and Validating the CDD. (JCIDS Activity)

(1) Nominal Process. The JCIDS document generation, gatekeeping, staffing, and validation for the CDD is essentially the same as that performed for the ICD. See Figure F-3.

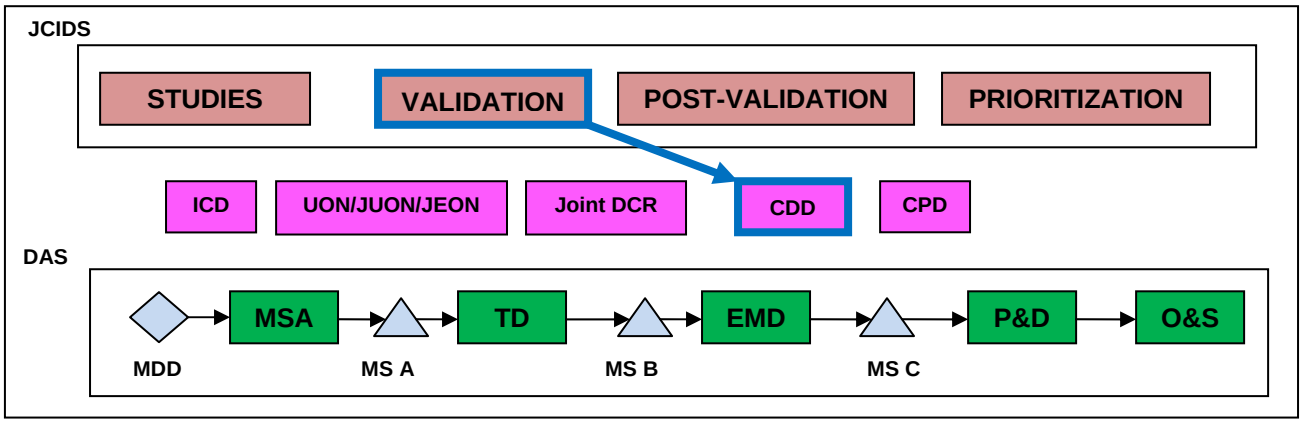

Figure F-3. Staffing and Validating a CDD

(a) In validating the CDD, the validation authority: validates the KPPs and their associated threshold and objective values; assesses the risks in meeting those KPPs in terms of cost, schedule and technological maturity; and assesses the affordability of the system as compared to the operational capability being delivered, and may consider other alternatives to the proposed capability solution.

(b) In addition to validating KPPs, the validation authority sets parameters on cost, IOC and FOC dates, and procurement quantities. If the resulting program deviates from the specified parameters by more than 10% on cost or quantity or 12 months on schedule, the solution Sponsor must revalidate the CDD to assure that the overall program is still in the best interest of the Joint force to satisfy the validated capability requirements, and that the impact– in terms of extended sustainment of legacy systems and/or reduced funding for other programs – represents reasonable risk.

(c) The validation of the CDD is a key factor in the MDA decision to initiate a development program at MS B.

(2) Variation for Incremental Development. Depending upon the nature and urgency of the capability requirements, and the current state of

technology, the Sponsor may document multiple increments of capability requirements in a single CDD, and use the CDD to support multiple MS-B decisions. This can facilitate the development of more mature long-term capability solutions while also providing interim capability solutions in a more timely manner, while minimizing the staffing of multiple JCIDS documents. Each increment described in the CDD may spawn a separate CPD, if needed, in support of MS C decisions for each increment.

e. Engineering and Manufacturing Development (EMD) Phase. (DAS Activity)

(1) Nominal Process. During this acquisition phase, the validated CDD guides the Sponsor in system integration and testing, and ensures supportability, producibility, and affordability. By the end of the EMD phase, a draft CPD describes the actual performance of a capability solution that will deliver the required capability solution to satisfy one or more capability requirements and associated capability gaps identified in an ICD, and is resubmitted to the JCIDS process for staffing and validation prior to a MS C decision by the MDA. See Figure F-4.

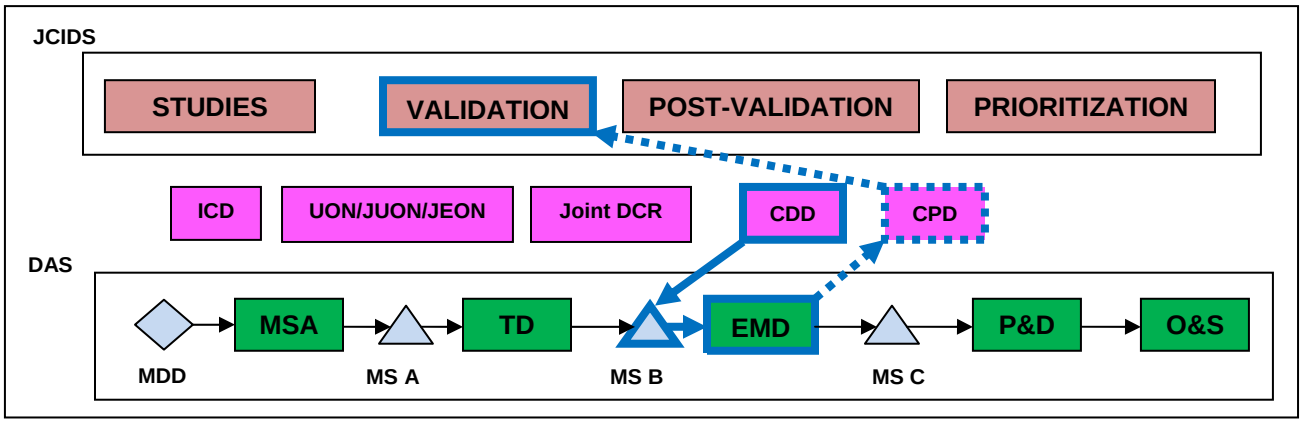

Figure F-4. EMD Phase and Draft CPD

(2) Variation for KPP relief. As development efforts continue in EMD, some KPPs may need to be adjusted in the CDD during the EMD phase rather than updating KPPs in the CPD to affect the P&D phase to account for technological challenges which are not cost effective to overcome, or to support other appropriate tradeoffs between cost, schedule, and performance. When a Sponsor proposes such a change, the updated CDD with adjusted KPPs will be submitted for review and revalidation. For documents with JSDs of JROC Interest, JCB Interest, or Joint Integration, the Gatekeeper and lead FCB will review the proposed changes to determine the scope of staffing required before routing to the validation authority for decision.

(3) Variation for CDD in lieu of CPD. If EMD activities have not driven changes to KPP thresholds, then a previously validated CDD may be used in lieu of a CPD. Any additional information normally included in the CPD and used by the acquisition process may be updated into the CDD prior to submitting for review. The Sponsor may then resubmit the CDD to the Gatekeeper for confirmation that KPP thresholds are unchanged and that the program is on target to meet the cost, IOC/FOC, and quantity parameters specified in the CDD.

(4) Variation for entry at MS C. The EMD phase may be abbreviated or eliminated if the MDA directs in a MDD that development of a capability solution may start directly at MS C. This is more likely in cases of transitioning JUONs and JEONs, or where the Sponsor leverages assessments of operational utility or other documentation of demonstrated military utility where an off-the-shelf capability solution can satisfy the capability requirement.

f. Staffing and Validating the CPD. (JCIDS Activity)

(1) The JCIDS document generation, gatekeeping, staffing, and validation for the CPD is essentially the same as that performed for the ICD or CDD. See Figure F-5.

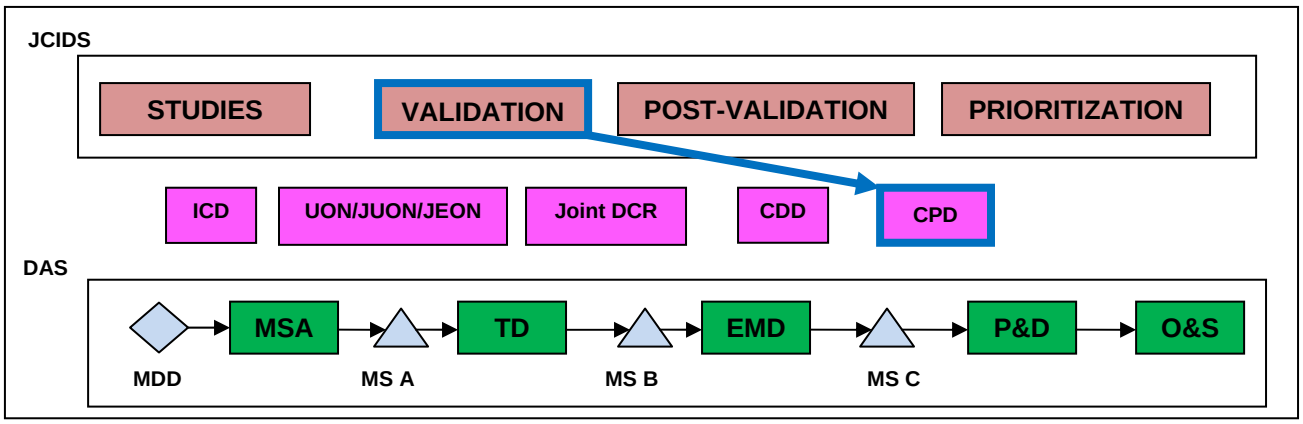

Figure F-5. Staffing and Validating a CPD

(a) In validating the CPD, the validation authority: ensures that the capability solution being delivered meets capability requirements and closes associated capability gaps originally defined in the ICD at an affordable cost. If the system does not meet the threshold levels for the KPPs, or if the cost, schedule, or procurement quantities proposed have been changed since the CDD, the validation authority will assess whether or not the capability solution remains operationally acceptable.

(b) In addition to validating KPPs, the validation authority adjusts and/or revalidates parameters on cost, IOC and FOC dates, and procurement quantities. If the resulting program deviates from the specified parameters by more than 10% on cost or quantity or 12 months on schedule, the solution Sponsor must revalidate the CPD to assure that the overall program is still in the best interest of the Joint force to satisfy the validated capability requirements, and that the impact– in terms of extended sustainment of legacy systems and/or reduced funding for other programs – represents reasonable risk.

(c) The validation of the CPD is a key factor in the MDA decision to initiate production of the capability solution at MS C.

g. Production and Deployment (P&D) Phase. (DAS Activity)

(1) Nominal Process. In this acquisition phase, the validated CPD guides the Sponsor in production and fielding of the capability solution to the warfighter, and conduct of operational test and evaluation to determine effectiveness and suitability. There is normally no further interaction with the JCIDS process during this phase. See Figure F-6.

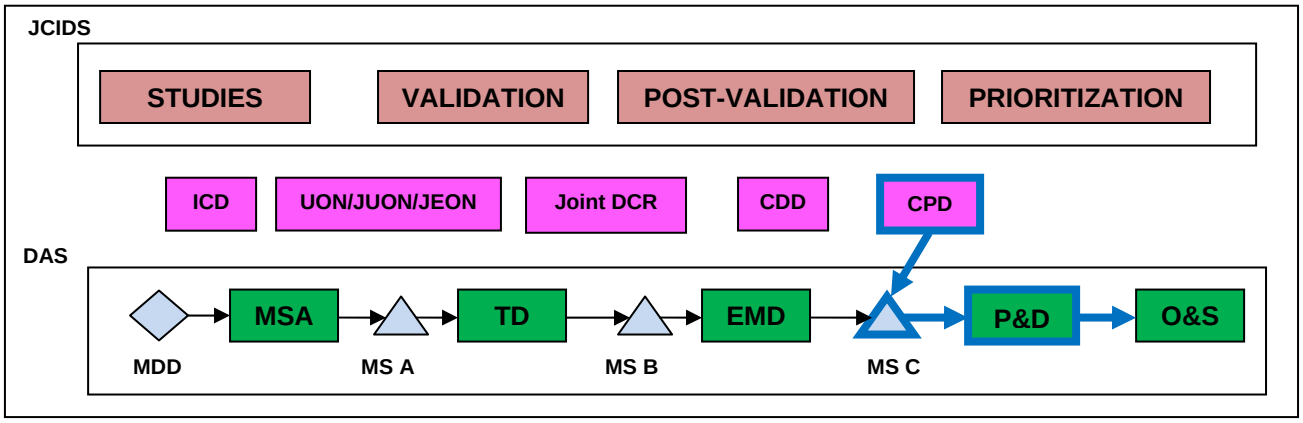

Figure F-6. P&D Phase

(2) Variations for Incremental Development. If the development of the capability solution was originally planned in multiple increments, then each production and deployment increment will be associated with a separate CPD for each increment of capabilities provided.

(3) Variations for substantial changes/upgrades during production. If significant changes to capability requirements are to be implemented during production, a revised or new CPD, with adjusted KPPs to account for the change, is submitted to the JCIDS process for staffing and validation. The Gatekeeper and lead FCB will review the proposed changes to determine the scope of staffing required before routing to the validation authority for decision.

h. Operations and Support (O&S) Phase. (DAS Activity)

(1) Nominal Process. In this acquisition phase, the Sponsor executes the operation and sustainment of the fielded capability solutions. There is normally no further interaction with the JCIDS process during this phase. This phase ends when the capability requirement is no longer valid and the fielded capability solution is retired, or when a new or upgraded capability solution is fielded to replace the older capability solution. See Figure F-7.

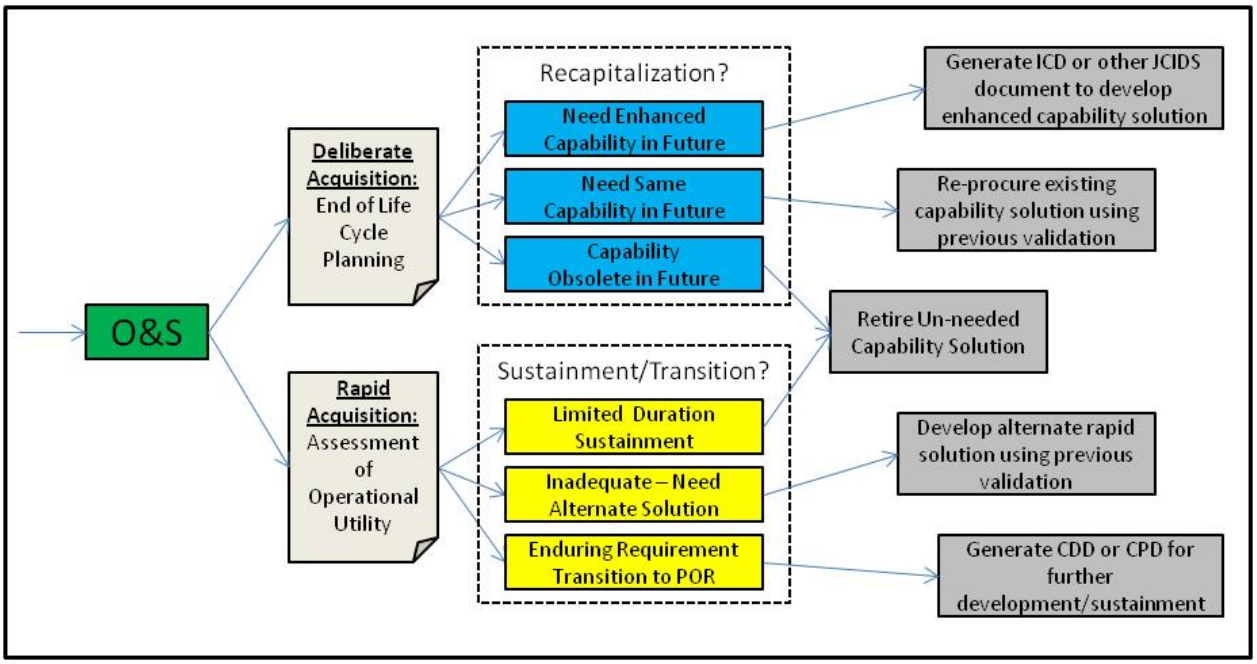

Figure F-7. End of the O&S Phase

(2) Variation for upgraded capability solutions after fielding. For incremental improvements to fielded capability solutions, through more capable production increments and/or retrofit of existing systems, the need for a new or updated ICD, CDD, and/or CPD will be determined by the validation authority after Gatekeeper and lead FCB review of the Sponsor proposed changes.

(3) Variation for refresh or recapitalization of aging capability solutions. For sustaining existing capability solutions, a new ICD, CDD, or CPD is not required to retain or restore capabilities or perform technology refresh of fielded systems that have a validated ORD or ICD, CDD, or CPD. 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 previously validated JCIDS document.

(4) Variation for Urgent/Emergent Processes

(a) Because of the urgent nature of capability requirements driving rapid acquisition, many of the normal acquisition process activities are deferred or minimized to facilitate rapid fielding directly to support operations, and often have limited or ad-hoc support. During the O&S Phase, many of the deferred actions relating to UONs must be completed for capability solutions which are of continuing utility to the warfighter, in order to provide due diligence for effective long term operations and sustainment.

(b) Assessment of operational utility. For any rapidly fielded capability solutions, the original requirement Sponsor will generate an assessment of the capability solution within 90 calendar days of initial fielding to facilitate transition, sustainment, or alternate approaches illustrated in Figure F-7. To facilitate follow-on development efforts, the assessment may also document applicable shortcomings in the fielded capability solution and what might be improved in a follow-on effort. The generation of the assessment is intended to be brief and provide feedback against the original capability requirements submitted in the JUON or JEON. It does not limit the ability of the solution sponsor to provide more in-depth operational testing and assessment as part of transition efforts. The assessment is then posted to the KM/DS studies repository to facilitate sustainment and follow-on efforts. The three categories for the assessment are:

1. Failure / Limited Success. The fielded capability solution does not provide operational utility satisfying the capability requirements documented in the validated JUON or JEON. In the assessment, the requirement Sponsor also provides confirmation that the originally requested and validated capability requirements are still appropriate, or identifies any necessary changes for revalidation. The previously validated JUON or JEON does not need to re-enter staffing and validation unless the capability requirement has been changed. For unchanged capability requirements, the JRAC and solution Sponsor will leverage the original validated JUON or JEON to generate a new funding and fielding plan and develop an alternate capability solution as soon as possible.

2. Success / Limited Duration Requirement. For assessments documenting operational utility but only a limited duration sustainment requirement, the solution Sponsor will continue to sustain the rapidly fielded capability solution until it is no longer required by the requirement Sponsor, or a follow-on capability solution takes the place of the rapidly fielded capability solution.

3. Success / Enduring Requirement. For assessments documenting operational utility and an enduring requirement for the rapidly fielded capability solution, the solution Sponsor will continue to sustain the

rapidly fielded capability solution until replaced by an alternative capability solution, if applicable.

(c) Example content for assessment of operational utility. A assessment of operational utility is intended to be documented in memo format and consist of the following sections:

1. Header info: Date, original requirement/source document and validation date, assessing organization (Requirement Sponsor), POC info, capability solution being assessed, solution organization (Solution Sponsor), POC info, etc.

2. Assessment period. Identify initial date capability solution was first provided to the end user and length of time upon which the assessment is based. Notional target is for assessments to be provided back to the Gatekeeper within 90 days of initial fielding - balance of providing timely feedback with allowing time for use and assessment. Assessment may be submitted in shorter timeframes, particularly in situations where it is quickly determined that the capability solution does not deliver the required operational utility.

3. Nature/conclusion of assessment - (a) doesn't deliver required capabilities, (b) delivers capabilities and needs limited duration sustainment, (c) delivers capabilities and recommend transition to enduring capability.

4. Required Capability/Performance. Could be as simple as "meets all required capabilities" for a completely successful capability solution. If not delivering all required capabilities, identify shortfalls, limitations, and/or issues with each required capability. Be as specific as possible to better inform further development activities or alternative approaches for delivering the required capabilities.

5. Changes to CONOPS, Mission(s) and/or Threat(s). Could be as simple as "None" for capability solutions which end up being used exactly as proposed in the original UON/JUON/JEON. If changes were made, either due to the nature of the capability solution, or to innovations/opportunities explored once the capability solution was fielded, identify what has changed and how the capability solution is being used. Details may be used to assist in sustainment and/or further development of the capability solution, as well as provide detail for transition to enduring capabilities when appropriate. (Note that if changes to threat and/or usage drive significant changes to the required capabilities, an update and revalidation of the UON/JUON/JEON may be required.)

6. Changes to required quantities. Could be as simple as "Same as identified in UON/JUON/JEON" for capability solutions which end up being used exactly as proposed in the original UON/JUON/JEON. If the capability solution has operational utility in a broader sense than originally anticipated, or is being consumed/attrited at a greater rate or over a longer period of time, provide updated estimates of required quantities. (Note that if changes drive significant changes to the required quantities, an update and revalidation of the UON/JUON/JEON may be required.)

7. Changes to anticipated sustainment duration. Could be as simple as "Same as identified in UON/JUON/JEON" for capability solutions which end up being used exactly as proposed in the original UON/JUON/JEON. If the capability solution has operational utility in a broader sense or longer duration than originally anticipated, or is being recommended for transition to enduring capabilities, provide details of anticipated sustainment timeframe. (Align with quantities above, if consumption/attrition is expected to be an issue over the expanded timeframe.)

8. Other issues/considerations. Identify any other issues which affect the utility and/or sustainment of the capability solution. Issues may include, but are not limited to, fielding, training, reliability/maintainability, interoperability, etc.

9. (optional) Additional opportunities. If the fielded capability solution, or derivatives thereof, is anticipated to provide operational utility to other parts of the Joint force, outline any identified opportunities.

10. (optional) Testing data. If any formal or informal testing/evaluation was performed on the capability solution during the assessment period, provide a summary of testing and results. If any follow-on testing is planned, please indicate intended timeframe and scope of testing. Applicable test data and detailed results may be included as an appendix to the assessment. This data can facilitate further refinement/enhancement of the capability solution and provide source data for transition efforts of enduring capabilities.

(d) To provide authoritative disposition of rapidly fielded capability solutions, any assessments recommending enduring capability requirements will be reviewed by the WG/FCB, and validated by the appropriate validation authority for the as determined by the Gatekeeper. As with other deliberate acquisition programs, the MDA, with validation authority input, will direct via ADM the solution Sponsor to generate, within 120 calendar days, JCIDS documents appropriate to the level of follow-on development efforts required – in general a CDD or CPD – to facilitate transition to a deliberate acquisition program for the balance of development, fielding, and sustainment efforts. The validated JUON or JEON and related assessment of operational utility should

be leveraged to minimize the effort required to generate JCIDS documents for follow-on efforts.

3. Interaction with Other Processes

a. Integrated Priority Lists (IPLs)/Capability Gap Assessment (CGA)

(1) CCMDs annually submit priorities for capability requirements, assessed across DOD Component and functional lines, which represent capability gaps limiting CCMD assigned mission accomplishment. FCBs use this information to assess mitigation strategies to meet the CCMD needs during the CGA.

(2) The CGA process examines CCMD identified capability requirements and associated capability gaps, along with other issues and perspectives from the Services and other DOD Components, groups similar gaps, assesses on-going efforts to close or mitigate capability gaps, and recommends programmatic and/or non-programmatic solutions to close or mitigate capability gaps. The result of the CGA is a list of capability gaps and recommended solutions for mitigation, presented to for JROC approval.

(3) Joint prioritization informs the review and recommendations developed under the CGA. Any new capability requirements driving capability gaps identified during the CGA will also be added to the Joint prioritization.

(4) The CGA process is general in nature and may be modified as necessary based on senior leader direction. See Appendix A to this Enclosure for more detail of the CGA process.

b. JROC/JCB Tripwire

(1) The JROC/JCB Tripwire is a JROC process established to review JROC and JCB Interest programs which deviate from cost, schedule, or quantity targets established at the time of validating CDDs or CPDs.

(a) Cost. Programs must return to the JROC or JCB for re-validation if they experience a cost growth equal to or greater than 10 percent over their current baseline or 25 percent over their original baseline as defined in the Acquisition Program Baseline (APB).

(b) Schedule. Programs must return to the JROC or JCB for re-validation if they experience a schedule slip for IOC or FOC equal to or greater than 12 months from IOC and FOC targets set in the validation JROCM.

(c) Quantity. Programs must return to the JROC or JCB for re-validation if they experience a reduction in end-item quantities equal to or greater than 10 percent from a quantity target set in the validation JROCM.

(2) Tripwire initiation. The lead FCB initiates a Tripwire review based upon "first knowledge" of cost, schedule, and/or quantity changes reaching the tripwire values. First knowledge of a tripwire condition is usually determined by, but not limited to, one of the following events:

(a) Program Objective Memorandum (POM) or Budget Reviews.

(b) Program restructures.

(c) JCIDS Reviews.

(d) Defense Acquisition Executive Summary (DAES) Reviews.

(e) Overarching Integrated Process Teams (OIPTs).

(f) Selected Acquisition Reports (SARs).

(g) Program Deviation Reports or changes to APBs.

(h) MAIS Quarterly Reports.

(3) The lead FCB will notify the Sponsor in writing, and will work with the Sponsor to assess whether an adjustment to validated KPPs is appropriate to mitigate the changes to cost, schedule, or quantity, while still providing meaningful capability for the warfighter.

(a) In cases where adjustment of KPPs is appropriate and will mitigate the changes to cost, schedule or performance, the Sponsor will generate an updated CDD or CPD and submit for revalidation. The Lead FCB will forward the updated document to the validation authority for review and revalidation.

(b) In cases where adjustment of KPPs cannot mitigate the changes, the validation authority will re-evaluate the risks associated with the delayed and/or decreased capabilities offered by the program, and consider whether any alternatives are more appropriate to satisfy the original capability requirements.

(c) The validation authority will also establish new cost, schedule, and/or quantity levels which will trigger follow-on tripwire reviews if the program experiences further changes.

(4) Tripwire timeline. Elapsed time between FCB written notice to Sponsor and final adjudication by the validation authority will not exceed 75 calendar days.

(5) Tripwire waiver. In cases where a Sponsor receives notice from the FCB but does not believe a tripwire review is necessary, the Sponsor may submit a written request, with justification, to the FCB for relief.

(a) The FCB will review the Sponsor's justification and provide a recommended disposition to the J-8/DDR.

(b) The J-8/DDR is the approval authority for Tripwire relief. If J-8/DDR does not approve the request, the Sponsor may appeal to DJ-8 for final decision.

(c) If approved, a tripwire adjudication memo is retained in the KM/DS system. If not approved, the FCB review begins within 30 calendar days.

(5) JROC/JCB Tripwires do not preclude a validation authority from, at any time, requiring a review of previously validated requirements or programs by directly communicating to the applicable Sponsor, outlining the review requirements, timeline, and other details.

(a) The JROC and JCB issue Tripwire notification via JROCM.

(b) The J-8/DDR issues Tripwire notification via memorandum.

(c) Other delegated validation authorities are not required to have similar Tripwire procedures, but may issue similar notifications in accordance with their internal processes.

c. Nunn-McCurdy Unit Cost Breaches

(1) The Nunn-McCurdy Unit Cost Breach review activity is an USD(AT&L) process implemented to meet statutory review requirements in reference xxx. More detail on Nunn-McCurdy Unit Cost Breach procedures are in references mm and xx.

(2) When MDAPs experience cost growth of 15 percent from their current baseline or 30 percent from their original baseline, they are in a "significant" Nunn-McCurdy Unit Cost Breach. Sponsors must notify Congress within 45 calendar days after the report (normally program deviation report) upon which the determination is based. Sponsors must also submit a Selected Acquisition Report (SAR) with the required additional unit cost breach information.

(3) When MDAPs experience cost growth of 25 percent from their current baseline or 50 percent from their original baseline, they are in a "critical" Nunn-McCurdy Unit Cost Breach. Programs in "critical" breach status are subject to detailed review for potential termination.

(a) USD(AT&L) organizes integrated process teams (IPTs) to determine national security impact, analyze alternatives, estimate costs and review management structure.

(b) The FCBs, JCB, and JROC participate in order to review the driving capability requirements and associated capability gaps and operational risks, and provide recommendations with respect to the essentiality of the program to satisfying capability requirements which are critical to national security.

(c) Joint prioritization informs the review process regarding the priority of the capability requirements driving the program under review.

d. Major Automated Information System (MAIS) Critical Change Reports

(1) The MAIS Critical Change review activity is an USD(AT&L) process implemented to meet statutory review requirements in reference yyy. More detail on MAIS Critical Change review procedures are in references mm, xx, and ooo.

(2) When MAIS programs experience cost growth of 15-25 percent in program development cost or total life cycle cost; experience a 6-12 month delay in schedule; or are expected to have a significant adverse change in performance, they are in a "significant change" status. Sponsors must notify Congress within 45 calendar days after receiving the PM's MAIS Quarterly Report (MQR) upon which the determination is based.

(3) When MAIS programs experience cost growth of more than 25 percent in program development cost or total life cycle cost; experience greater than a 12 month delay in schedule; are expected to be unable to meet a KPP or otherwise be unable to perform the intended mission; or will not achieve Full Deployment Decision (FDD) within five years of when funds were first obligated for the program, they are in a "critical change" status. Programs in "critical change" status are subject to detailed review for potential termination. Sponsors must notify Congress within 45 calendar days after receiving the PM's MQR upon which the determination is based.

(a) USD(AT&L) organizes integrated process teams (IPTs) to determine national security impact, analyze alternatives, estimate costs and review management structure.

(b) The FCBs, JCB, and JROC participate in the review process to review the driving capability requirements and associated capability gaps and operational risks, and provide recommendations with respect to the essentiality of the program to satisfying capability requirements which are critical to national security.

e. Program and Budget Review (PBR)

(1) PBR is a process coordinated by CAPE to facilitate the consolidation of POM submissions from the Services and other DOD Components, and adjudication of any outstanding issues before presenting the overall DOD input to the President's budget submission.

(2) Following POM submissions, CAPE organizes issue teams as needed to review program and budget issues and recommend potential adjudication for senior decision makers. Issue team membership includes representatives from across the Joint Staff and OSD as well as the DOD Components, to assure that Joint equities are properly represented.

(3) As close coordination of JCIDS, DAS, and PPBE is critical to the timely fielding of capability solutions to the warfighters, representatives from the FCBs participate in issue teams to provide representation from the warfigher capability requirement perspective. In addition, Joint Staff participation from J-8/CAD provides representation from the acquisition and capability solution perspective, and participation from J-8/PBAD provides representation from the financial perspective.

(4) Joint prioritization informs the PBR discussions regarding the relative priorities of the capability requirements behind the programs under review.

f. Chairman's Program Recommendation/Assessment

(1) Chairman's Program Recommendation (CPR). The CPR provides the CJCS personal recommendations to the Secretary of Defense for the programming and budgeting process prior to OSD publishing the DPG. The CPR articulates issues the CJCS deems important enough for the Secretary to consider when identifying DOD strategic priorities in the DPG. FCBs will assist in the development of the CPR by identifying and articulating candidate issues, conducting supporting research and assessments, and developing 5x8s on the candidate issues. Joint prioritization is an additional input for consideration in the formulation of the CPR. Since the CPR is personal correspondence to the Secretary of Defense, the document is not presented to the JCB and JROC for approval.

(2) Chairman's Program Assessment (CPA). The CPA is the CJCS's personal assessment to the Secretary of Defense on the adequacy of DOD Component POMs submitted in the most recent cycle and may be considered in refining the Defense program and budget. The Chairman's assessment addresses risk associated with the programmed allocation of Department resources and evaluates the conformance of POMs to the priorities established in strategic plans and CCMD priorities for capability requirements. The CPA also assesses the recommendations and execution of those issues highlighted in the CPR. FCBs will assist in the development of the CPA by identifying and articulating candidate issues, conducting supporting research and assessments, and developing 5x8s on the candidate issues. Joint prioritization is an additional input for consideration in the formulation of the CPA. Since the CPA is personal correspondence to the Secretary of Defense, the document is not presented to the JCB and JROC for approval.

g. Chairman's Risk Assessment (CRA). The CRA is the CJCS's assessment of the nature and magnitude of strategic and military risk in executing the missions called for in the NMS, and may include recommendations for mitigating risk, including changes to strategy, development of new operational concepts or capabilities, increases in capacity, or adjustments in force posture or employment.

(1) The CRA informs the review and validation of capability requirements in the FCB portfolios during normal staffing activities as well as IPL/CGA, PBR, and other periodic reviews.

(2) The CRA should also be informed by the priorities of validated capability requirements in the FCB portfolios as well as the acquisition activities underway to satisfy the capability requirements and, improving capabilities and reducing risk in conducting the missions called for in the NMS.

h. Capability Portfolio Management (CPM). CPM is the DODs approach to advise the Deputy Secretary of Defense (DepSecDef) and the heads of the DOD Components on how to optimize investments for materiel and non-materiel capability solutions across the Department and minimize risk in meeting the Department's roles and missions. Building upon DOD capabilities-based planning (CBP) and management efforts to facilitate strategic choices and improve the ability to make capability tradeoffs, the DepSecDef established CPM in reference *zzz*. Joint prioritization is an additional input for consideration in CPM to assure proper balance between the capability requirement portfolios managed by the JROC and the capability solution portfolios managed by the acquisition community. FCBs and capability portfolio managers will collaborate with each other's processes to ensure awareness of cross-portfolio interdependencies and providing appropriate context to requirements and acquisition decision making.

APPENDIX A TO ENCLOSURE F

CAPABILITY GAP ASSESSMENT

1. The JROC uses the CGA process to meet Title 10 responsibilities of the CJCS outlined in reference a. Figure F-A-1 depicts major events associated with the CGA process. The top row of boxes outlines the process steps. The middle section depicts the entities that perform the functions, and the bottom section shows the desired outcomes, along with a timeline of events.

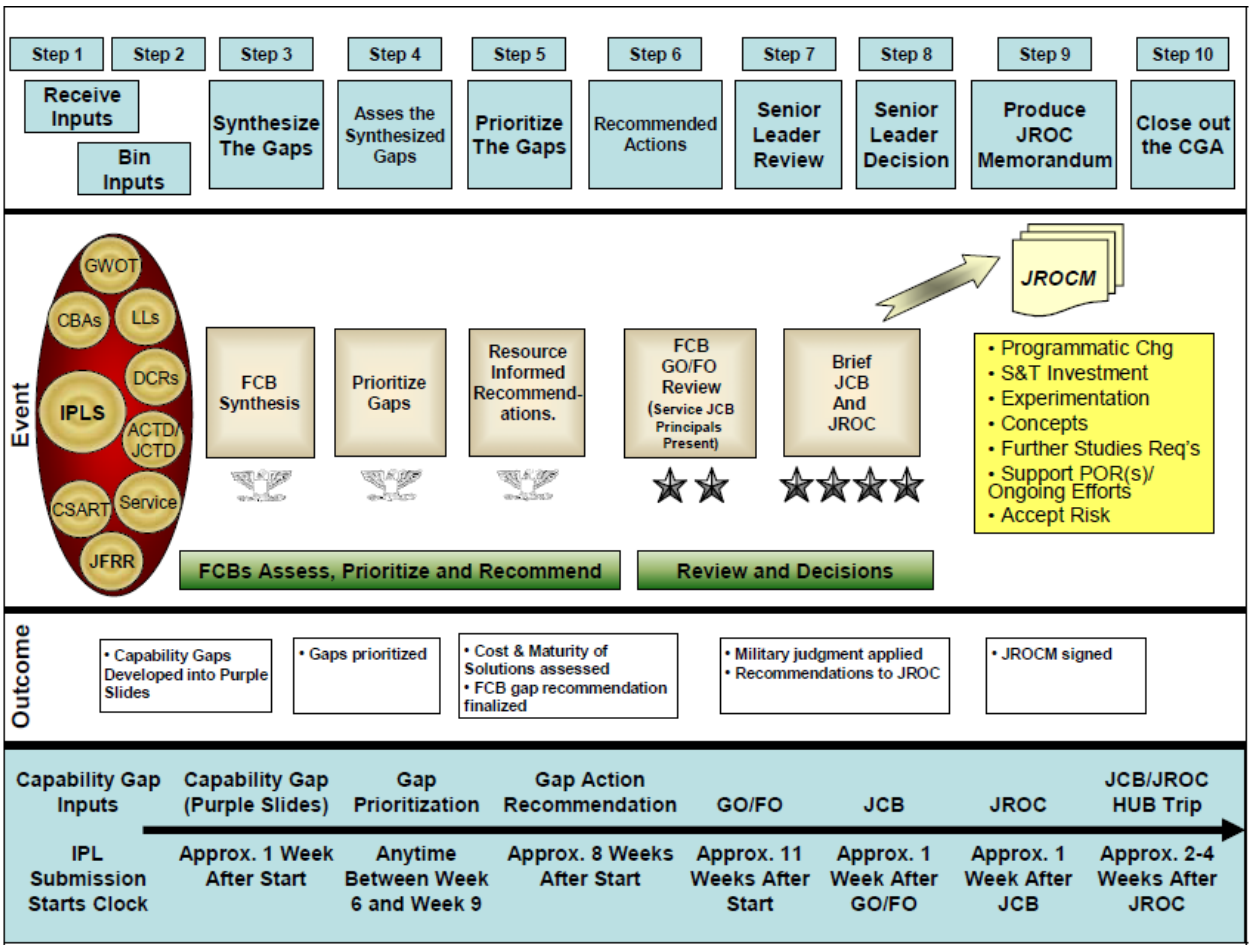

Figure F-A-1. Capability Gap Assessment Storyboard

2. The CGA process begins with the receipt of the CCMD IPLs in response to the Chairman's request for assessment of critical warfighting capability gaps that introduce risk to accomplishing their specified UCP missions. Figure F-A-2 shows the ten steps of the CGA process, identifying those steps led or facilitated by the Joint Staff J-8, Joint Capabilities Division (J-8/JCD) or by the FCBs.

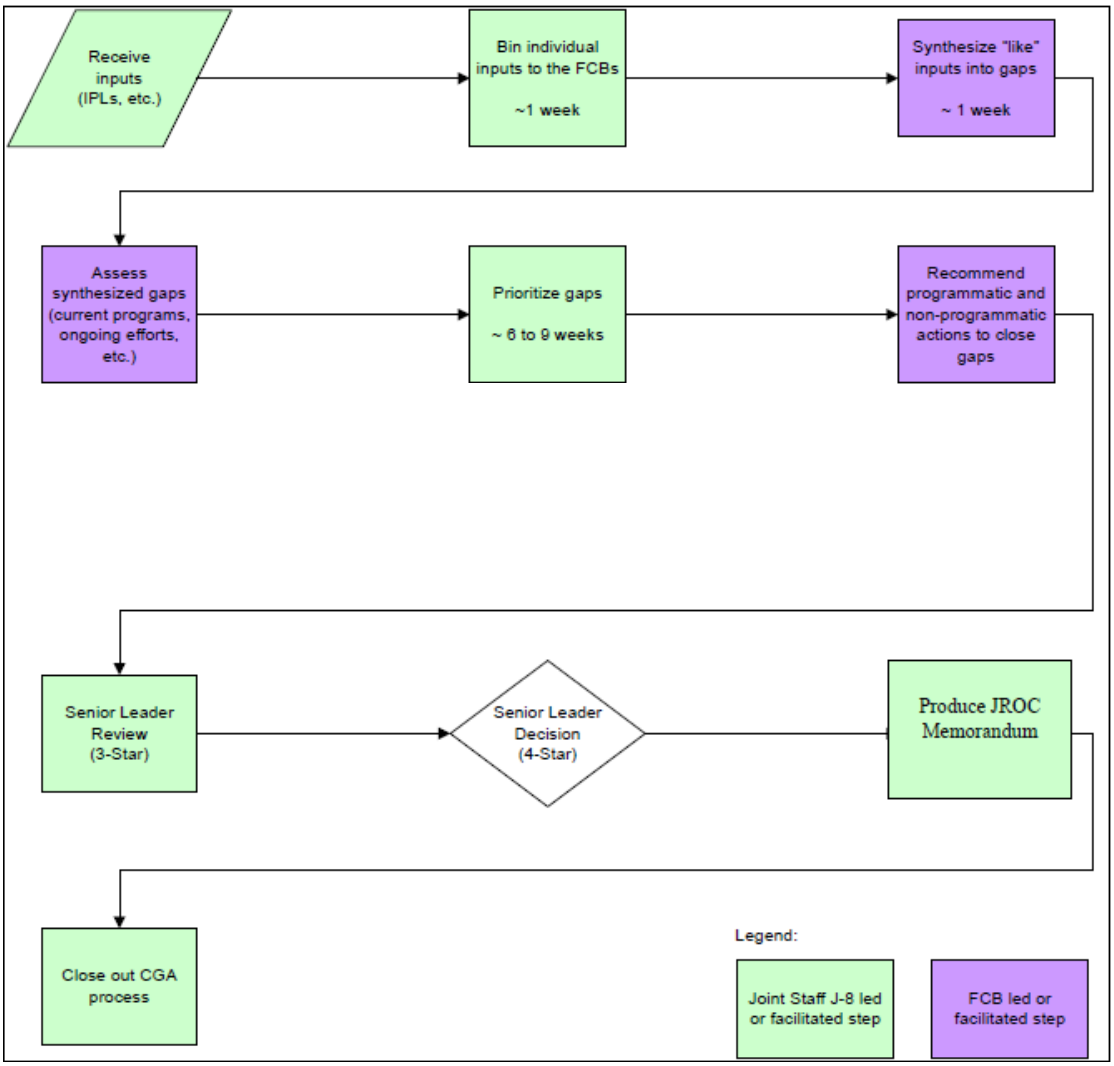

Figure F-A-2. CGA Ten Step Process

3. The ten step CGA Process

a. Step 1, Receive Inputs: Capability gap inputs are derived from many sources. The primary source is the CCMDs, in the form of their IPLs and Joint Combat Capability Assessment (JCCA) deficiency action items. Additional inputs may include joint lessons learned, Combat Support Agency Review Team (CSART) findings, Joint Concept Development and Experimentation (JCD&E), Warfighter Challenges, etc. Since some inputs are received throughout the year, a "snapshot" of these inputs will be taken at the beginning of the CGA process to capture the capability gaps to evaluate.

b. Step 2, Bin the Inputs: J-8/JCD serves as the clearinghouse for the CGA process, assigning specific IPL issues to the FCBs and verifying that snapshots of all other capability gap sources have been distributed to FCBs. If binning disagreements between FCBs are not resolved at a lower level, the

Gatekeeper will adjudicate. This step, to include resolving disagreements, takes approximately one week.

c. Step 3, Synthesize the Gaps: FCBs combine similar capability gaps into a single "synthesized capability gap" which serves as an overarching/umbrella capability gap. These are used to better manage the sheer number of capability gaps received. Combining similar capability gaps also helps identify multiple stakeholders (CCMDs, Services, and other DOD Components) with identical or similar issues, and allows both issues and potential solutions to be evaluated from a holistic viewpoint. FCBs begin this step as soon as issues are assigned. This step takes approximately one week.

d. Step 4, Assess the Synthesized Capability Gaps: The FCBs, as functional subject matter experts, work with the stakeholders and assess each synthesized capability gap relative to their respective capability requirement portfolios. The assessment will also consider how the capability requirements address issues identified in the most recent CRA. They gather data on existing acquisition programs, on-going studies, concept development, S&T, and any Joint DCR implementations that have a bearing on the capability gaps. Video Teleconferences (VTCs) with the CCMDs are conducted throughout this step to ensure all parties fully understand the issues. In addition to these scheduled VTCs, stakeholders have the opportunity to review the synthesized capability gaps in the KM/DS system, as they are developed, in order to engage with FCBs and ensure issues are captured fully and accurately. The assessment is complete when the FCB determines it has sufficient information bearing on the issue.

e. Step 5, Prioritize the Capability Gaps. The prioritization step in the CGA process leverages the Joint prioritization generated by the FCBs for each JCA. If the CGA identifies capability gaps related to capability requirements already prioritized by the FCB, the capability gaps can adopt the priority already established for the driving capability requirement. If the CGA identifies capability gaps related to capability requirements which are not yet prioritized by the FCB, the FCB can establish priorities for the new capability requirement(s) and associated capability gap(s) using the same methodology used for the rest of their portfolio. This step begins after all the inputs are synthesized into capability gaps. FCB representatives explain their specific capability gaps to the other FCB representatives. This step is typically accomplished six to nine weeks after the IPLs are received.

f. Step 6, Recommend Actions: The FCBs, as the SMEs for their capability areas, develop recommended actions across both non-materiel and materiel capability solutions to close or mitigate the identified capability gaps. These recommendations, to include recommending an OPR and the suspense date(s), are reviewed by the FCB O-6 Integration Group to obtain consensus from the

Services and CCMDs on a mitigating course of action. This step begins once the CGA is completed. All recommendations are completed and agreed to prior to the senior leader review, which begins approximately 11 weeks after the IPLs are submitted. The recommended solutions from the CGA fall into six major categories:

(1) Support Program of Record (POR) and on-going efforts: The existing PORs and on-going efforts are sufficient to close or mitigate the capability gap with an acceptable level of risk and the FCB believes those efforts should continue as planned and programmed until completion.

(2) Programmatic Change: The existing PORs and on-going efforts do not close or mitigate the capability gap with an acceptable level of risk, a capability solution is known, and there is sufficient programmatic detail regarding that capability solution. The FCB believes the Department should make this investment, and these programmatic changes are recommended for inclusion in the CPR and CPA.

(3) S&T Investment: The existing PORs cannot close or mitigate the capability gap with an acceptable level of risk, a materiel capability solution is needed, but the technology is lacking. The FCB believes that technology for a materiel capability solution may be feasible in a timely manner, warranting a S&T investment.

(4) Further Study Required: The existing PORs and on-going efforts do not close or mitigate the capability gap with an acceptable level of risk, a different materiel or non-materiel capability solution may close or mitigate the capability gap but there is insufficient information available to make a specific recommendation. The FCB believes additional information will lead to a specific recommendation. Approaches may include, but are not limited to, developing an alternative CONOPS, conducting a CBA or other study, conducting a joint experiment, etc.

(5) Other: The FCB believes that an action not listed above should be taken. Approaches may include reallocation of forces through Global Force Management (GFM), policy change, generation of JCIDS documents to develop new capability solutions, etc.

(6) Take No Additional Action: The FCB believes that no action should be taken to close or mitigate the capability gap, and the Department should accept risk for the capability gap.

g. Step 7, Senior Leader Review: the results of the CGA process are briefed to the FCB GO/FO Integration Group. The purpose of these briefings is to allow FCB Chairs to review overall recommendations and, if necessary, refine

the recommendations or adjust Joint prioritization. This step occurs approximately 11 weeks after IPL submission.

h. Step 8, Senior Leader Decision: The CGA recommendations are briefed to the JCB and the JROC. These briefings allow senior leaders to assess the results, apply final refinements, and approve the recommendations and adjustments/additions to Joint prioritization.

i. Step 9, Produce JROCM: CGA results are documented in a JROCM signed by the JROC Chairman. J-8/JCD staffs the JROCM through the Services and CCMDs and obtains the JROC Chairman's signature upon completion of staffing. J-8/JCD, in collaboration with the FCBs, tracks the execution of JROC decisions in accordance with the JROCM. Once documented by the JROCM, capability gaps (and driving capability requirements) approved through the CGA process carry the same weight as capability requirements and associated capability gaps validated in ICDs, and may be used to support ICD waivers and drive AoAs or other efforts intended to satisfy the capability requirements and close the associated capability gaps. Other related data not developed during the IPL/GCA process may be developed through other studies or assessments as required.

j. Step 10, Close out the CGA: JROC approval and implementation in a JROCM completes the CGA cycle. The documented results serve as an input into the CPR and CPA and provide the analytic underpinning for future decisions related to the synthesized capability gaps. For the purposes of the CGA, however, the synthesized capability gaps are considered "closed" based on the JROC's decisions and the assumption that those decisions will be implemented. Failure to execute the JROC's decision is not a CGA issue, although it may generate an input for the next CGA cycle and may be a discussion topic during related reviews and decision making in JCIDS and other Departmental processes. At the completion of the cycle, J-8/JCD will review and incorporate any lessons learned for implementation in future CGA processes. Long term tracking of JROC decisions is a function of the responsible FCB(s), which will make recommendations on what unexecuted JROC recommendations will go into the next CGA cycle.

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ENCLOSURE G

JOINT PRIORITIZATION

1. Overview

a. Joint prioritization of capability requirements addresses statutory responsibilities of the JROC and the CJCS in accordance with references a and b. In addition to satisfying statutory responsibilities, Joint prioritization within JCA portfolios provides context for decision makers across the Department.

b. Each FCB will establish Joint priorities for all capability requirements submitted to their respective FCB portfolios in ICDs, JEONs, JUONs, or DOD Component UONs.

(1) Successor documents – CDDs, CPDs, and Joint DCRs – typically address capability requirements already established in ICDs, and thus do not require additional priorities and will be traceable to the capability requirements and priorities from predecessor documents. In cases where CDDs, CPDs, or Joint DCRs are submitted without a preceding ICD, Joint priorities will be established for the capability requirements contained within these documents.

(2) FCB efforts to establish Joint priorities are conducted primarily as part of JCIDS document staffing activities to facilitate low workload on the part of the FCBs, and avoid an increase to staffing timelines. Some level of initial effort will be required to establish Joint priorities for previously validated capability requirements in each FCB portfolio.

(3) Priorities determined by the Sponsor of each capability requirement will not be considered during FCB assessments of Joint priorities. Document Sponsors may participate in normal FCB and FCB WG activities to ensure that pertinent information relating to the capability requirements under review may be considered by the FCBs and FCB WGs.

2. FCB Role in Prioritization

a. Each FCB, through their FCB WGs, performs an assessment of Joint equities for each capability requirement submitted into their respective portfolios. The purpose is to balance Joint equities across organizational lines, CCMD AORs, and operational timeframes.

b. FCBs will normally perform Joint assessments on new capability requirements during staffing, following submission of the source documents to the KM/DS system by the Sponsor. For capability requirements not staffed through the JCBs, such as documents with JSD of Independent or DOD

Component UONs, FCBs will perform Joint assessments of the capability requirements within 90 calendar days of being uploaded to the KM/DS system.

c. These FCB assessments serve as the basis for the FCBs to provide Joint prioritization of all capability requirements in their respective FCB portfolios.

d. FCBs initially establish priorities for capability requirements in their portfolios when new capability requirements are submitted into the KM/DS system. FCBs may update their priority lists at any time, as needed, to better reflect current priorities due to shifts in strategic guidance, changing missions/operations, evolving threats, etc.

e. FCBs maintain capability requirements in their priority lists as long as the capability requirement remains valid, even when a fielded capability solution completely satisfies an identified capability requirement and there is no significant capability gap remaining. This allows more informed decision making, and appropriate balance between the priorities of sustaining existing capability solutions and short-term and long-term development efforts for new or upgraded capability solutions. FCBs will only remove capability requirements from their priority lists when the validation for the requirement has been rescinded and any associated development programs or fielded systems driven by the capability requirement have retired/cancelled.

f. FCB Assessment

(1) As a part of portfolio related assessments the FCBs conduct during staffing, FCBs will establish the Joint priority for each new capability requirement. The FCBs may leverage any portfolio assessment tools which they use in their normal activities, or implement other tools to facilitiate the prioritization of their portfolios.

(a) The primary focus of the FCB Joint prioritization is the value of a given capability requirement to the overall operational capabilities of the Joint force, including the contributions from each individual Service, CCMD, and other DOD Component, and how those capabilities enable the CCMDs to perform their assigned operations and missions, and stand ready to execute OPLANs and CONPLANs. The FCBs will also consider how capability requirements within their portfolio address issues identified in the CRA.

(b) The presence, or lack thereof, of development programs or fielded capability solutions intended to address the validated capability requirements is the basis for the FCBs to assess the level of capability gap and associated risk for each of the capability requirement. Programmatic “health” of individual material capability solutions, however, does not have a bearing upon the setting of Joint priorities for the driving capability requirements.

(c) The Joint priorities for validated capability requirements may then be used to inform priorities for development and sustainment of materiel and non-materiel solutions intended to partially or wholly satisfy the capability requirements and close or mitigate associated capability gaps. The level to which individual acquisition programs address the prioritized capability requirements, cost effectiveness of programs and alternatives, programmatic health, and other factors, may influence the development and fielding of the most appropriate solutions in alignment with Joint priorities.

(2) If changes to strategic guidance or other factors warrant a review and potential change to Joint priorities, FCBs will review their portfolios and make any necessary adjustments to previous Joint assessments.

3. Repository for Joint Priority Lists

a. The Gatekeeper maintains a repository of the Joint priority lists from all FCBs.

b. During initial standup of prioritization, it is expected that the Gatekeeper will manage the Joint priority lists manually via uploads to the KM/DS system. As implementation of Joint priority lists matures, maintenance and updating of priority lists will be automated in the KM/DS system.

c. The Joint prioritization is available as needed to provide context to other Departmental processes and senior level decision making. Because the Joint prioritization is a "live" representation, it is expected that any use to inform external decision making will involve a "snapshot" of the Joint priorities at a point in time, approved by the JROC, to ensure that all stakeholders are working from the same view of Joint priorities.

4. Joint Prioritization Implementation

a. To facilitate timely implementation, as well as the capturing of priorities for previously validated capability requirements, Joint prioritization will be established in phases.

b. On the effective date of this Manual, FCBs will perform Joint assessments and Joint prioritization on new capability requirements while in staffing.

c. Priorities will be based upon a starting point of "empty" FCB priority lists. The first new capability requirement reviewed will be priority one by default. Once the second and subsequent capability requirements are reviewed, FCBs will provide relative placement for each additional capability requirement they review.

d. Backfilling of priorities for previously validated capability requirements:

(1) FCBs reviewing any follow-on documents (CDDs, CPDs, or Joint DCRs) will establish priorities for the capability requirements contained in the original requirements document(s) at the time of reviewing the follow-on documents.

(2) The FCBs will coordinate efforts to extract capability requirements from previously validated JCIDS and legacy documents and add to the FCB priority lists. FCBs may backfill their priority lists incrementally or in a single effort at the discretion of the FCB Chair.

e. Backfilling efforts for each FCB will continue until the FCB Chair proposes and the JROC concurs that sufficient levels of previously validated capability requirements are in the Joint priority lists, to provide useful context for decision making.

ENCLOSURE H

REQUIREMENTS MANAGEMENT CERTIFICATION TRAINING (RMCT)

1. Overview

a. In accordance with reference aaaa, members of the Armed Forces and employees of DOD with authority to generate capability requirements for MDAPs may not participate in the requirements generation process unless the member or employee successfully completes a certification training program.

b. USD(AT&L), in consultation with the Defense Acquisition University (DAU), was directed to develop a training program to certify military and civilian personnel of DOD with responsibility for generating requirements for MDAPs, and to define the target population for such training program.

c. Personnel have varying degrees of responsibility within the requirements process, and correspondingly variable training needs. Each DOD Component determines what specific steps are needed to certify their personnel as Requirements Managers, but completion of the requisite DAU training courses corresponding to the levels described herein is a prerequisite to any Component-specific certification.

d. Training Levels. Individuals filling positions/billets within a Component whose responsibilities involve development or staffing of requirements documents will be trained to one of four possible levels, commensurate with responsibilities of the billet.

(1) Level A. Contribute to the capability requirement generation and development process in various capacities. Duties may include: analysis; subject matter or domain expertise; JCIDS document development, staffing, and/or coordination, and administrative support

(2) Level B. Significantly involved with capability requirement generation and development in specific capacities. Duties may include: study leadership, planning, writing, adjudicating comments, and facilitating inter-organizational development and coordination of JCIDS documents

(3) Level C. Designated by organizational leadership for advanced requirements instruction. Primary duties may include leadership and supervisory roles in capability requirement generation and development, and organizational representation in pertinent program management and JCIDS forums to include the FCB WGs, FCBs, JCB and JROC.

(4) Level D. GO/FO and Senior Executive Service (SES) only. Duties may include: approval of draft documents for submission into JCIDS, senior

leadership and oversight of analysis and staffing of JCIDS documents, enforcement of requirements standards and accountability, and if holding delegated authority, validation of JCIDS documents.

2. Responsibilities

a. Services, CCMDs, and other DOD Components

(1) Designate an office of primary responsibility and name a primary and alternate Component Appointed Representative (CAR) for Component-level RMCT management.

(2) Determine certification training levels appropriate for individuals within the Component, based on definitions in this document.

(3) Certify personnel involved in the handling of documents during any phase of preparation and staffing have accomplished RMCT as described herein. Note: contractors may accomplish DAU on-line training, as needed; contractors may accomplish DAU resident training as a DAU "Priority P-9 – walk-ins, industry, federal civilian agencies." Contact the CAR for details.

(4) Encourage all personnel developing requirements documents to participate in recurrent training in order to increase their skills and knowledge of the requirements process. Also encourage participation in training for other acquisition areas to gain wider breadth of knowledge and understanding of

(5) Ensure responsibility for JCIDS documents submitted for staffing rests only with fully trained personnel, especially accountable POCs and document signatories.

b. DAU

(1) Build and administer courses of instruction for RMCT.

(2) Conduct periodic Functional IPTs (FIPTs), composed of subject matter experts (CARs, Component members/advisors, others as the FIPT Chair may deem appropriate), to ensure courses are properly matched to training levels, and recommend changes to course content.

c. CARs. CARs are responsible for the operation and oversight of the Component's RMCT program. Oversight duties include, but are not limited to:

(1) Referencing Training Level and Course descriptions in this enclosure, identifying and tracking all billets within the Component needing RMCT trained and certified personnel, including any that may be filled by contractors.

(2) Provide training completion status reports to USD(AT&L) via the RMCT Portal. CARs do not report training status of individuals, but do track and report to USD(AT&L) the total number of Component billets that are occupied by trained personnel as a portion of the whole.

(3) Participate in FIPTs on behalf of their Component.

d. RMCT Functional Advisor. The Joint Staff J-8, Requirements Management Division (J-8/RMD) serves as the RMCT Functional Advisor.

(1) In consultation with USD(AT&L) and DAU, J-8/RMD will update the descriptions of the training levels and courses in this enclosure, with updates effective upon release.

(2) In consultation with the USD/AT&L, approve competencies and certification requirements for RMCT.

e. RMCT Functional Leader and FIPT Chair. USD(AT&L).

(1) Ensure the RMCT program meets the needs of the DoD requirements development community.

(2) In consultation with the J-8/RMD, approve competencies and certification requirements for Requirements Managers.

(3) Maintain and operate the RMCT Portal and grant access as necessary to enable CARs to provide component training status reports.

3. Training Courses

a. Courses created and administered by DAU for RMCT are shown in Figure H-1.

TRAINING COURSE NUMBER/ TITLE	**CLR 101** Introduction to JCIDS	**RQM 110** Core Concepts for Requirements Management	**RQM 310** Advanced Concepts and Skills	**RQM 403** Requirements Executive Overview Workshop	**RQM 413** Senior Leader Requirements Course
ESTIMATED TIME TO COMPLETE	4-6 hours	24-30 hours	4.5 days	1 day	Tailored
TRAINING LEVEL	A, B, C	B, C	C	D (1-3 Star/ Civilian Equivalent	D (4-Star/Civilian Equivalent)

Figure H-1: RMCT Course Nomenclature

(1) CLR 101, Introduction to Joint Capabilities Integration and Development System (JCIDS): On-line course provides an overview of the DoD

capabilities analysis and requirements development process. The module's five lessons focus on terms, definitions, basic concepts, processes, and roles and responsibilities involved in implementing the requirements (JCIDS) process. Mandatory instruction for position categories A, B, & C. CLR 101 replaces CLM 041, and either course may be used to satisfy the prerequisites for higher level courses. Prerequisites: none.

(2) RQM 110, Core Concepts for Requirements Management: On-line course covers both the requirements manager role and requirements management within the "Big A" acquisition construct. It examines the capability development process from an end-to-end perspective, highlighting the interactions among requirements (JCIDS), acquisition (DAS), and resource allocation (PPBE) processes. Mandatory instruction for position categories B & C. Prerequisites: CLM 041 or CLR 101.

(3) RQM 310, Advanced Concepts and Skills for Requirements Managers: In-classroom one week resident course held only at the DAU campus, Defense Systems Management College (DSMC), Fort Belvoir, VA. Course takes an in-depth look into the interactions among requirements (JCIDS), acquisition (DAS), and resource allocation (PPBE) processes. Mandatory instruction for position category C. Prerequisites: RQM 110.

(4) RQM 403, Requirements Executive Overview Workshop: On-demand, in-classroom course, for GO/FO and SES personnel. The course provides an executive-level understanding of requirements management within the "Big A" acquisition construct. It examines the capability development process from an end-to-end perspective, highlighting the interactions among requirements (JCIDS), acquisition (DAS), and resource allocation (PPBE) processes, as well as the role of the requirements manager. Course duration is no longer than one day. Mandatory instruction for GO/FO and SES's in position category D. Prerequisites: none.

(5) RQM 413, Senior Leader Requirements Course: Requirements course and presentation for 4-star General/Flag Officers (Service Chiefs, Service Vice-Chiefs, CCMD Commanders). A tailored presentation to provide senior leaders with an executive-level understanding of the interactions among requirements (JCIDS), acquisition (DAS), and resource allocation (PPBE) processes to meet the warfighters needs. Presentation length is tailored to meet the needs of each senior leader. Prerequisites: None

b. Additional information regarding DAU courses and enrollment procedures are located on the DAU website shown in reference bbbb.

4. Implementation / "Grandfather Clause". Beginning on 7 November 2011, those individuals not previously certified as either Certification Level A, B, or C, will be required to complete CLR 101 for certification. Individuals already

certified as either A, B, or C, prior to 7 November 2011, will not be required to complete CLR 101.

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ENCLOSURE I

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GLOSSARY

PART I – ACRONYMS

ACAT	Acquisition Category
ADM	Acquisition Decision Memorandum
ADNI/SRA	Associate Director of National Intelligence for Systems and Resource Analysis
AoA	Analysis of Alternatives
AOR	Area of Responsibility
APB	Acquisition Program Baseline
APUC	Average Procurement Unit Cost
ASD(OEPP)	Assistant Secretary of Defense for Operational Energy Plans and Programs
ASD(R&E)	Assistant Secretary of Defense for Research and Engineering
BA	Battlespace Awareness
BCL	Business Capability Lifecycle
CAE	Component Acquisition Executive
CAIV	Cost As an Independent Variable
CAPE	Cost Assessment and Program Evaluation
CAR	Component Appointed Representative
CARD	Cost Analysis Requirements Data
CBA	Capabilities-Based Assessment
CBP	Capabilities-Based Planning
CBRN	Chemical, Biological, Radiological, and Nuclear
CCJO	Capstone Concept for Joint Operations
CCMD	Combatant Command
CD	Capability Drop
CDD	Capability Development Document
CDR	Critical Design Review
CDTM	Capability Development Tracking and Management
CGA	Capability Gap Assessment
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
COI	Community of Interest
CONOPS	Concept of Operations
CONPLAN	Concept Plan
COTS	Commercial Off-the-Shelf
CPA	Chairman's Program Assessment
CPD	Capability Production Document
CPM	Capability Portfolio Management
CPR	Chairman's Program Recommendation

CRA	Chairman's Risk Assessment
CSA	Combat Support Agency
CSART	Combat Support Agency Review Team
CTA	Capstone Threat Assessment
CTC	Combat Training Center
DAB	Defense Acquisition Board
DAES	Defense Acquisition Executive Summary
DARS	DOD Architecture Registry System
DAS	Defense Acquisition System
DASD(MR)	Deputy Assistant Secretary of Defense for Materiel Readiness
DASD(R)/TRS	Deputy Assistant Secretary of Defense for Readiness / Training Readiness and Strategy
DAU	Defense Acquisition University
DBS	Defense Business System
DBSMC	Defense Business System Management Committee
DCR	DOTmLPF-P Change Recommendation
DepSecDef	Deputy Secretary of Defense
DI2E	Defense Intelligence Information Environment
DIA	Defense Intelligence Agency
DJ-4	Director, Joint Staff J-4 Directorate for Logistics
DJ-7	Director, Joint Staff J-7 Directorate for Joint Force Development
DJ-8	Director, Joint Staff J-8 Directorate for Force Structure, Resources, and Assessment
DM2	DODAF Meta-model
DNI	Director of National Intelligence
DOD	Department of Defense
DODAF	DOD Architecture Framework
DODD	Department of Defense directive
DODI	Department of Defense instruction
DOTmLPF-P	Doctrine, Organization, Training, materiel, Leadership and education, Personnel, Facilities, and Policy
DPG	Defense Planning Guidance
DSN	Defense Switching Network
DUSD(A&T)	Deputy Under Secretary of Defense for Acquisition and Technology
DWO	Defense Warning Office
E3	Electromagnetic Environmental Effects
EA	Electronic Attack
EMD	Engineering and Manufacturing Development (Phase)
ESOH	Environment, Safety, and Occupational Health
FBCE	Fully Burdened Cost of Energy

FCB	Functional Capabilities Board
FCB WG	FCB Working Group
FDD	Full Deployment Decision
FIPT	Functional IPT
FOC	Full Operational Capability
FoS	Family of Systems
FP KPP	Force Protection Key Performance Parameter
FUE	first unit equipped
GO/FO	General Officer/Flag Officer
GEF	Guidance for the Employment of the Force
GFM	Global Force Management
GIG	Global Information Grid
GOTS	Government Off-the-Shelf
GSD	Ground Sample Distance
HERF	Hazards of Electromagnetic Radiation to Fuels
HERO	Hazards of Electromagnetic Radiation to Ordnance
HERP	Hazards of Electromagnetic Radiation to Personnel
HSI	Human Systems Integration
IA	Information Assurance
IC	Intelligence Community
IC	International Cooperation
ICCR	Intelligence Community Capability Requirements
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
IEA	Information Enterprise Architecture
IED	Improvised Explosive Device
IM	Insensitive Munition
IOC	Initial Operational Capability
IPL	Integrated Priority List
IPT	Integrated Process Teams
IRCO	Intelligence Requirements Certification Office
IS	Information Systems
ISC	Integrated Security Construct
ISP	Information Support Plan
ISR	Intelligence, Surveillance, and Reconnaissance
IT	Information Technology
J-2	Joint Staff Directorate for Intelligence
J2C	Joint Command and Control
J-4	Joint Staff Directorate for Logistics
J-4/ED	Joint Staff J-4 / Engineering Division
J-4/MXD	Joint Staff J-4 / Maintenance Division
J-5	Joint Staff Directorate for Strategic Plans and Policy

J-7	Joint Staff Directorate for Joint Force Development
J-8	Joint Staff Directorate for Force Structure, Resources, and Assessment
J-8/CAD	Joint Staff J-8/Capabilities and Acquisition Division
J-8/DDC4	Joint Staff J-8 / Deputy Director for C4
J-8/DDFP	Joint Staff J-8 / Deputy Director for Force Protection
J-8/DDR	Joint Staff J-8 / Deputy Director for Requirements
J-8/JCD	Joint Staff J-8 / Joint Capabilities Division
J-8/PBAD	Joint Staff J-8 / Program and Budget Analysis Division
J-8/RMD	Joint Staff J-8 / Requirements Management Division
JARM	Joint Architecture Reference Model
JCA	Joint Capability Area
JCB	Joint Capabilities Board
JCCA	Joint Combat Capability Assessment
JCD&E	Joint Concept Development and Experimentation
JCDPR	Joint Capabilities Development Process Review
JCIDS	Joint Capabilities Integration and Development System
JCPAT	Joint Capabilities Program Assessment Tool
JCSFL	Joint Common System Functional List
JCTD	Joint Capability Technology Demonstration
JDIR	Joint Staff Director
JEON	Joint Emergent Operational Need
JIE ORA	Joint Information Environment Operational Reference Architecture
JIEDDO	Joint Improvised Explosive Device Defeat Organization
JOPSC-DP	Joint Operations Concepts Development Process
JPD	Joint Potential Designator
JMT	Joint Mission Thread
JRAC	Joint Rapid Acquisition Cell
JROC	Joint Requirements Oversight Council
JROCM	Joint Requirements Oversight Council Memorandum
JSCP	Joint Strategic Capabilities Plan
JSD	Joint Staffing Designator
JTRS	Joint Tactical Radio System
JUON	Joint Urgent Operational Need
JWICS	Joint Worldwide Intelligence Communications System
JWSTAP	Joint Weapons Safety Technical Advisory Panel
KM/DS	Knowledge Management/Decision Support
KPP	Key Performance Parameter
KSA	Key System Attribute
LCCE	Life Cycle Cost Estimate
MAIS	Major Automated Information System
MDA	Milestone Decision Authority

MDAP	Major Defense Acquisition Program
MDD	Materiel Development Decision
MIP	Military Intelligence Program
MOE	Measure of Effectiveness
MQR	MAIS Quarterly Report
MS	Milestone
MSA	Materiel Solution Analysis (Phase)
MSA	Major System Acquisition
MSFD	Multi-Service Force Deployment
NDI	Non Developmental Item
NDS	National Defense Strategy
NETOPS	Network Operations
NIIRS	National Imagery Interpretability Rating Scale
NIP	National Intelligence Program
NIPRNET	Non-secure Internet Protocol Router Network
NMS	National Military Strategy
NR-KPP	Net-Ready Key Performance Parameter
NSS	National Security Strategy
NSS	National Security System
O&S	Operations and Support (Phase)
OIPT	Overarching Integrated Process Team
OPLAN	Operation Plan
OPR	Office of Primary Responsibility
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
P&D	Production and Deployment (Phase)
PAUC	Program Acquisition Unit Cost
PBR	Program and Budget Review
PDR	Preliminary Design Review
PES	Physical Exchange Specification
PM	Program Manager
POC	Point of Contact
POM	Program Objective Memorandum
POR	Program of Record
PSA	Principal Staff Assistant
QDR	Quadrennial Defense Review
RFC	Request for Capabilities
RFF	Request for Forces
RMCT	Requirements Management Certification Training
RDP	Requirements Definition Package
RDT&E	Research, Development, Test, and Evaluation

S&T	Science and Technology
SAASM	Selective Availability Anti-Spoofing Module
SAP	Special Access Program
SAR	Selected Acquisition Report
SATCOM	Satellite Communication
SecDef	Secretary of Defense
SEP	Systems Engineering Plan
SES	Senior Executive Service
SIG	Senior Integration Group
SIPRNET	SECRET Internet Protocol Router Network
SME	Subject Matter Experts
SoS	System of Systems
TD	Technology Development (Phase)
TDL	Tactical Data Link
TDS	Technology Development Strategy
TEMP	Test and Evaluation Master Plan
TOC	Total Ownership Cost
TOS	Time on Station
TPM	Technical Performance Measure
UCP	Unified Command Plan
UJTL	Universal Joint Task List
UON	Urgent Operational Need
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
USD(P&R)/TRS	Under Secretary of Defense for Personnel and Readiness / Training Readiness and Strategy
UXO	Unexploded Ordnance
VCJCS	Vice Chairman of the Joint Chiefs of Staff
VTC	Video Teleconference
WARM	Wartime Reserve Mode
WSE	Weapon Safety Endorsement

PART II — DEFINITIONS

Capability – The ability to execute a specified course of action. (A capability may or may not be accompanied by an intention.) (JP 1-02)

Capability Gap (or Gap) – The inability to execute a specified course of action. The gap may be the result of no existing capability, lack of proficiency or sufficiency in an existing capability solution, or the need to replace an existing capability solution to prevent a future gap.

Capability Need (or Need) – see "Capability Requirement".

Capability Requirement (or Requirement) – A capability which is required to meet an organization's roles, functions, and missions in current or future operations. To the greatest extent possible, capability requirements are described in relation to tasks, standards, and conditions in accordance with the Universal Joint Task List or equivalent DOD Component Task List. If a capability requirement is not satisfied by a capability solution, then there is also an associated capability gap which carries a certain amount of risk until eliminated. A requirement is considered to be 'draft' or 'proposed' until validated by the appropriate authority.

Capability Solution – A materiel solution or non-materiel solution to satisfy one or more capability requirements (or needs) and reduce or eliminate one or more capability gaps.

Core Mission Area – DOD core mission areas identified under the most recent Quadrennial Roles and Missions (QRM) review are: Homeland Defense and Civil Support (HD/CS); Deterrence Operations; Major Combat Operations (MCOs); Irregular Warfare; Military Support to Stabilization Security, Transition, and Reconstruction Operations; Military Contribution to Cooperative Security.

Document Sponsor – The organization submitting a JCIDS document. Solution Sponsors for successor documents – Capability Development Documents (CDDs), Capability Production Documents (CPDs), and Joint DOTmLPF-P Change Recommendations (Joint DCRs) - may be different than the Requirement Sponsors for initial documents – Initial Capabilities Documents (ICDs), Urgent Operational Needs (UONs), Joint UONs (JUONs), and Joint Emergent Operational Needs (JEONs). Different Sponsors for requirements and solutions occurs most commonly when the initial requirement Sponsor does not have delegated acquisition authority and a different organization is designated to develop and field a capability solution.

DOD Components – 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 Department of Defense Agencies, field activities, and all other organizational entities in the Department of Defense. (JP 1-02)

Note that the term "DOD Components" also includes the National Guard Bureau (NGB). The term "DOD Components" is used for standardization/streamlining purposes and does not imply exclusion or exception from this grouping even if listed separately in the past.

Gap – See "Capability Gap".

Joint - Connotes activities, operations, organizations, etc., in which elements of two or more Military Departments participate. (JP 1-02)

Note that this definition of "joint" is applicable to requirement documents and capability solutions which apply to more than one DOD Component. See "joint military requirement" for the definition applicable to JROC responsibilities.

Joint Emergent Operational Need (JEON) – UONs that are identified by a Combatant Command as inherently joint and impacting an anticipated or pending contingency operation.

Joint Military Requirement – a capability necessary to fulfill or prevent a gap in a core mission area of the Department of Defense.

Note that the responsibilities of the JROC over "joint military requirements" include both joint requirements and single DOD Component requirements which makeup the entirety of the capabilities of the joint force and enable the DOD core mission areas.

Joint Urgent Operational Need (JUON) – UONs that are identified by a Combatant Command as inherently joint and impacting an ongoing contingency operation..

Materiel Solution – A new item (including ships, tanks, self-propelled weapons, aircraft, etc., and related spares, repair parts, and support equipment, but excluding real property, installations, and utilities) developed or purchased to satisfy one or more capability requirements (or needs) and reduce or eliminate one or more capability gaps.

Need – See "Capability Requirement".

Non-materiel Solution – Changes to doctrine, organization, training, (existing) materiel, leadership and education, personnel, and/or facilities, implemented to satisfy one or more capability requirements (or needs) and reduce or eliminate one or more capability gaps, without the need to develop or purchase a new materiel solution.

Rapid Acquisition – a streamlined and tightly integrated iterative approach, acting upon validated urgent or emergent capability requirements, to: conduct

analysis and evaluate alternatives and identify preferred solutions; develop and approve acquisition documents; contract using all available statutory and regulatory authorities and waivers and deviations of such, appropriate to the situation; identify and minimize technical development, integration, and manufacturing risks; and rapidly produce and deliver required capabilities.

Requirement – See "Capability Requirement".

Requirement Sponsor – See "Document Sponsor".

Solution – See "Capability Solution".

Solution Sponsor – See "Document Sponsor".

Sponsor – See "Document Sponsor".

Urgent Operational Need (UON) – capability requirements identified by a DOD Component as impacting an ongoing or anticipated contingency operation. If left unfulfilled, UONs result in capability gaps potentially resulting in loss of life or critical mission failure. DoD Components, in their own terminology, may use a different name for a UON.

Validation - The review and approval of capability requirement documents by a designated validation authority. The JROC is the ultimate validation authority for capability requirements unless otherwise delegated to a subordinate board or to a designated validation authority in a Service, CCMD, or other DOD Component.

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