

# CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION

J-7 DISTRIBUTION: A, B, C, S CJCSI 3010.02C 15 January 2012

JOINT CONCEPT DEVELOPMENT AND EXPERIMENTATION (JCD&E)

References: See Enclosure C.

- 1. <u>Purpose</u>. This instruction establishes policy and guidance for JCD&E. It describes the JCD&E governance and delineates the roles and responsibilities of the JCD&E community. Details regarding project nomination and process are outlined in the Chairman of the Joint Chiefs of Staff (CJCS) Manual (CJCSM) 3010.02.
- 2. <u>Superseded/Cancellation</u>. CJCS Instruction 3010.02B, 27 January 2006, Joint Operations Concepts Development Process is hereby superseded.
- 3. <u>Applicability</u>. This instruction applies to the Joint Staff, Combatant Commands, Services, United States Coast Guard (USCG), the National Guard Bureau (NGB), Defense agencies, and joint and combined activities responsible to the Chairman of the Joint Chiefs of Staff hereafter referred to as the Chairman.
- 4. <u>Policy</u>. This instruction describes and documents the procedures used by the Chairman to fulfill his responsibilities under title 10, United States Code, sections 153, 163, 166, 181, and 485 per reference a.
- 5. <u>Definitions</u>. See Glossary.
- 6. Responsibilities. See Enclosure B.
- 7. Summary of Changes
  - a. Defines joint experimentation.
- b. Reflects overarching guidance for JCD&E activities within DoD and those JCD&E activities coordinated with agencies outside DoD. A companion

manual (CJCSM 3010.02) will provide the procedures and processes for conducting JCD&E activities per reference b.

- c. Defines the JCD&E community's role in the JCD&E process.
- d. Eliminates the use of specific categories of joint concepts (Joint Operating Concepts (JOCs) and Joint Integrating Concepts (JICs) and refers to elements of the joint concept family simply as "Joint Concepts." Approved versions of JOCs and JICs will remain in effect throughout their life cycle of development, experimentation, and transition and will not be renamed.
  - e. Revises approval authorities for JCD&E processes.
- f. Describes the relationship between this instruction and CJCSI 3170 Series, "Joint Capabilities Integration and Development System (JCIDS)," (references c and d).
- g. Describes the relationship between this instruction and CJCSI 3100 Series, "The Joint Strategic Planning System (JSPS)," (reference e).
  - h. Replaces "Warfighter Challenge" with "JCD&E requirement."
- 8. <u>Releasability</u>. This instruction is approved for public release; distribution is unlimited. DoD Components (to include Combatant Commands), other Federal agencies, and the public may obtain copies of this instruction through the Internet from the CJCS Directives Home Page--http://www.dtic.mil/cjcs\_directives.
- 9. Effective Date. This instruction is effective upon receipt.

JAMES A. WINNEFELD, JR.

Admiral, U.S. Navy Vice Chairman

#### **Enclosures:**

A -- Joint Concept Development and Experimentation

B -- Responsibilities

C -- References

GL -- Glossary

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#### **ENCLOSURE A**

## JOINT CONCEPT DEVELOPMENT AND EXPERIMENTATION (JCD&E)

- 1. Overview. JCD&E is a Chairman's program designed to address joint force capability gaps and present and future security challenges as identified by the Secretary of Defense, the Chairman, the Combatant Commanders, and the Services. This program is part of the overarching deliberate, iterative, and continuous Joint Force Development process of planning and developing the current and future joint force. JCD&E contributes to joint force development by identifying and evaluating potential solutions to these capability gaps. JCD&E evaluates conceptual ideas and proposed solutions via experimentation for validation. Ultimately, these solutions improve military capabilities as they transition across the doctrine, organization, training, materiel, leadership and education, personnel and facilities, and policy (DOTMLPF-P) spectrum.
- 2. <u>Joint Concepts</u>. Joint concepts link strategic guidance to the development and employment of future joint force capabilities and serve as "engines for transformation" that may ultimately lead to DOTMLPF-P changes. A joint concept is a visualization of future operations and describes how the joint force, using military art and science, might employ capabilities necessary to meet future military challenges. Joint concepts are written using a "problem solution" method. They identify military problems and propose innovative solutions to conduct military operations, going beyond merely improving the ability to execute missions under existing standards of performance and current joint doctrine. Joint concept development is a deliberate event-driven process facilitated through the Joint Staff Action Processing (JSAP) process and the JCD&E governance. The staffing process for joint concept proposals is detailed in reference b.
- 3. <u>Joint Experimentation (JE)</u>. JE is the conduct of joint experiments designed to identify capability gaps and develop solutions to joint problems which incorporate appropriate joint context. A joint experiment is a set of analytic activities derived from unbiased trials conducted under controlled conditions within a representative environment. The JCD&E community conducts joint experiments to discover unknown operational or technical requirements, validate a hypothesis, or establish or demonstrate some knowledge within a specific joint context.
- 4. <u>JCD&E Organization</u>. The Director for Joint Force Development (DJ-7) leads the joint force development efforts on behalf of the Chairman. The J-7 staff coordinates all efforts with respect to the JCD&E community. The JCD&E community is comprised of Combatant Commands, Services, and the Office of the Secretary of Defense (OSD), the Joint Staff, the National Guard Bureau (NGB), the United States Coast Guard (USCG), partners from Defense agencies,

the interagency, and multinational organizations. The J-7 is comprised of two Deputy Directorates; the Deputy Directorate for Strategy and Policy, hereafter referred to as DDJ-7 S&P, and the Deputy Directorate for Joint and Coalition Warfighting, hereafter referred to as DDJ-7 JCW. DDJ-7 S&P provides JCD&E oversight and guidance and DDJ-7 JCW executes JCD&E programs.

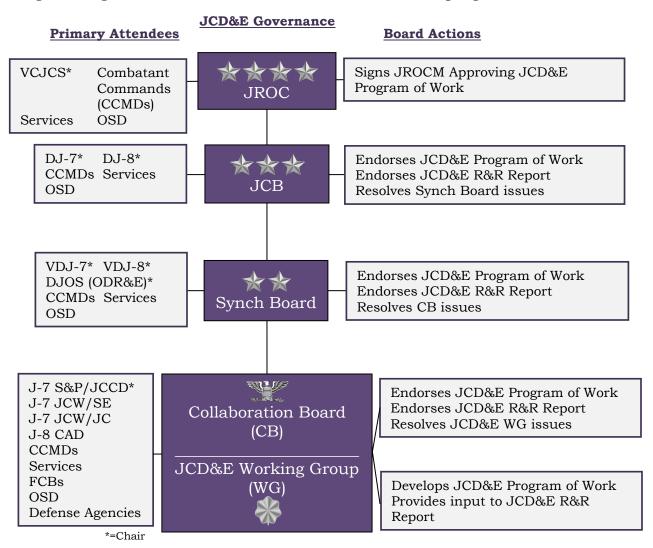


Figure 1. JCD&E governance structure.

- 5. <u>JCD&E Governance</u>. Figure 1 provides an overview of JCD&E governance outlining key levels of approval and oversight.
- a. The Chairman annually solicits JCD&E requirements from Combatant Commanders and Service Chiefs via the Chairman's Comprehensive Joint Assessment (CJA). JCD&E requirements identify those mission areas with potential capability gaps or weaknesses in current or future operations that may be filled or solved through JCD&E activities. DDJ-7 S&P engages the JCD&E community throughout the year addressing CJA submitted JCD&E

requirements as well as out-of-cycle submissions. JCD&E governance will evaluate all JCD&E requirement submissions.

b. The JCD&E Working Group (WG) will develop submitted JCD&E requirements into a Program of Work (PoW). For each project, the PoW will identify the problem statement, hypothesis/proposed solution, relationship to strategic guidance, JCD&E community partners, proposed research questions, methodology, expected outcomes/deliverables, resource request (manpower and funding), and a transfer/transition plan. The PoW, to include joint concept proposals, is endorsed by the Collaboration Board (CB), Synchronization Board or "Synch Board", and the Joint Capabilities Board (JCB) through the JCD&E governance (Figure 1). The PoW is approved by the Joint Requirements Oversight Council (JROC) and published via a signed JROC Memorandum (JROCM) in accordance with (IAW) reference c). The PoW will describe the planned collective JCD&E efforts across the DoD for the next fiscal year. JCD&E activities commence at the beginning of each fiscal year, pending resource availability. The DDJ-7 S&P/Joint Concepts to Capabilities Division (JCCD) will maintain visibility of all activities through bimonthly teleconferences and quarterly updates. Figure 2 provides a timeline of JCD&E governance events throughout a fiscal year.

Month	Activity	Purpose
Nov	JCD&E WG	Analyze, align, and prioritize JCD&E requirement submissions
Dec	JCD&E CB	Provide PoW development guidance to JCD&E WG
Feb	JCD&E WG	Finalize and endorse PoW
Mar	JCD&E CB	Endorse and refine PoW
Apr	Synch Board	Endorse and refine PoW
May	JCB	Endorse and refine PoW
Jun	JROC	Approve PoW via JROCM
Jul	CJA Data Call via JSAP	Solicit JCD&E requirements from community
Sep	Synch Board	Provide update to previous FY JCD&E activities

Figure 2. JCD&E timeline of events.

- (1) The JCD&E WG, chaired by DDJ-7 S&P/JCCD, is an Action Officer (AO) level body comprised of representatives from the Combatant Commands, Services, Joint Staff J-7 and J-8, Functional Capability Boards (FCBs), OSD, and other interested parties. The JCD&E WG develops the PoW.
- (2) The JCD&E CB, chaired by DDJ-7 S&P/JCCD, is an O-6 or government equivalent level body comprised of members from the organizations participating in the JCD&E WG. The CB refines and endorses the PoW and adjudicates issues arising from the JCD&E WG, and forwards its recommendations to the Synch Board for endorsement.

- (3) The Synch Board, tri-chaired by the Vice Director for Joint Force Development (VDJ-7), Vice Director for Force Structure, Resources, and Assessment (VDJ-8), and Director for Joint Operations Support, Office of the Director for Defense Research and Engineering (DJOS (ODR&E)), refines and endorses the PoW and adjudicates issues arising from the JCD&E CB. The Synch Board forwards its recommendations to the JCB for endorsement. The Combatant Commands and Services participate in Synch Board deliberations. In addition to plenary sessions Synch Board, the tri-chairs may convene executive sessions to further refine or modify the PoW.
- (4) The JCB, co-chaired by the DJ-7 and the Director for Force Structure, Resources, and Assessment (DJ-8), reviews and endorses the PoW. The JCB informs the JROC of ongoing and proposed JCD&E efforts and forwards the PoW to the JROC where it is approved via a JROCM. The Combatant Commands and Services participate in the JCB and JROC.
- 6. JCD&E Reporting. During and post execution, the JCD&E WG members provide inputs to DDJ-7 S&P/JCCD to inform the JCD&E Results and Recommendations (R&R). As part of the CJA, and on behalf of the JCD&E community, Joint Staff, J-7 submits the JCD&E R&R Report to the Chairman. The JCD&E R&R Report provides the status, results, and recommendations from all Joint and Service Concepts developed or in development and joint and Service experiments executed during the previous fiscal years. For JE, this report includes a description of each activity's objectives, outcomes, and recommendations, and how the submitted JCD&E requirements were addressed. For published concepts, this report provides a high level description of the concept including any proposed new capabilities. The report will describe the status of concepts in development and results of experimentation and/or Red Teams. Joint Staff J7 provides a briefing of this report to the JCB. Joint Staff J-7 will also brief this report to the FCB O-6 and General Officer/Flag Officer (GOFO) Integration meetings for use in the Joint Staff J-8 annual Capability Gap Assessment process. Reference b will establish the JCD&E R&R report development methodology.

## 7. JCD&E Relationships

a. <u>Joint Capabilities Integration and Development System (JCIDS)</u>. The JCIDS process supports the statutory responsibility of the JROC to identify, assess, validate, and prioritize joint military requirements. The primary linkage from JCD&E to JCIDS is the generation of proposed materiel and non-materiel capability requirements produced by JCD&E for submission and validation in the JCIDS process. Further information regarding the JCIDS process is detailed in reference c.

- b. <u>Joint Capability Areas (JCAs)</u>. JCAs are DoD's capability management language and framework. They facilitate collaboration within and outside of the JCD&E community by providing a common lexicon and associated taxonomy for capabilities across many related DoD activities and processes.
- c. <u>Joint Strategic Planning System (JSPS)</u>. The JSPS, reference e, provides formal structure to the Chairman's statutory responsibilities. Important components of the JSPS related to JCD&E are the CJA, the Joint Strategic Review (JSR) process, the Capabilities Gap Assessment, the Chairman's Risk Assessment (CRA), and the Chairman's Program Recommendation. As part of the CJA, Combatant Commanders and Service Chiefs provide an overall assessment that includes strategic environment and near-term strategic/military risk; current operations, campaign and contingency plans; near-, mid-, and far-term military risk drivers; and implications for the future force. Under implications for the future force, Combatant Commanders and Service Chiefs submit their JCD&E requirements.
- d. <u>Capability Gap Analysis (CGA)</u>. The CGA is an annual process by which FCBs synthesize capability gaps (integrated priority lists or IPLs) submitted by Combatant Commanders into DoD-wide capability gaps. JCD&E activities may be used to answer these gaps. FCBs will coordinate with the JCD&E community to preclude redundant activities addressing similar IPLs and JCD&E requirements submitted through the CJA.

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#### **ENCLOSURE B**

#### RESPONSIBILITIES

- 1. The JCD&E community is comprised of Combatant Commands, Services, OSD, the Joint Staff, NGB, USCG, and partners from Defense agencies, the interagency and multinational organizations. Listed below are some of those organizations' responsibilities.
  - a. The Office of the Secretary of Defense
    - (1) Provides JCD&E direction through strategic documents.
  - b. The Office of the Under Secretary of Defense for Policy
    - (1) Reviews and coordinates key JCD&E related documents.
- (2) Provides and assesses recommended changes to DOTMLPF-P and validates that such changes are consistent with SecDef guidance and direction.
- (3) Reviews and adjudicates between proposed policy changes and policy when the recommended changes are inconsistent with policy.

#### c. DJOS (ODR&E)

- (1) Participates in JCD&E WG and CB meetings.
- (2) Participates in and serves as a tri-chair of the JCD&E Synch Board.
- (3) Participates in JCB and JROC meetings per reference f.
- d. The Chairman of the Joint Chiefs of Staff
- (1) Provides JCD&E direction through the National Military Strategy (NMS), other strategic documents, and annual JCD&E guidance.
  - (2) Approves and signs joint concepts (or the Chairman's designee).
- (3) Annually solicits JCD&E requirements by Combatant Commanders and Service Chiefs through the CJA.
  - (4) Reviews the JCD&E R&R report.

- (5) Reviews the JCD&E PoW.
- (6) Approves and publishes revisions to this instruction and CJCSM 3010.02 (reference b).

#### e. JROC

- (1) Convenes progress reviews and endorses joint concepts.
- (2) Provides representatives to participate as members of the JCD&E WG.
- (3) Approves and publishes PoW via JROCM.
- (4) Performs functions IAW reference f.

#### f. Joint Staff J-7

- (1) Responsible for leading, coordinating, and supporting JCD&E efforts on behalf of the Chairman.
  - (2) Prepares and periodically revises this instruction for CJCS approval.
  - (3) Co-chairs the JCB for JCD&E activities.
  - (4) Participates in and serves as a tri-chair of the JCD&E Synch Board.
  - (5) Participates in and serves as the chair of the CB.
  - (6) Participates in and serves as the chair of the JCD&E WG.
  - (7) Leads and coordinates development of the JCD&E PoW.
- (8) Represents JCD&E efforts in interagency and multinational forums IAW the JSM 5100.01 Series.
- (9) Integrates interagency and multinational warfighting transformation and experimentation efforts to support joint and coalition interoperability and to develop required joint warfighting capabilities.
- (10) Conducts JCD&E in support of the JCD&E community to address near- to far-term problems, weaknesses, or gaps.
  - (11) Coordinates Red Team support for JCD&E efforts.
  - (12) Coordinates with FCBs during development of the PoW.

- (13) Coordinates with the FCBs to provide briefings on the R&R report findings and recommendations for inclusion in the CJA and JCIDS processes, as appropriate.
- (14) Staffs joint concepts to the JCD&E community for review, comment, and endorsement via the JSAP process (reference g).
  - (15) Prepares the R&R report and submits to the Chairman.
- (16) Provides a JCD&E Web site and Knowledge Management Tool (KMT) as a collaboration venue.
- (17) Facilitates the transfer of results and recommendations from JCD&E activities into appropriate transition pathways as identified in reference b).

#### g. Joint Staff J-8

- (1) Chairs the JCB.
- (2) Co-chairs the JCB for JCD&E activities.
- (3) Participates in and serves as a tri-chair of the JCD&E Synch Board.
- (4) Participates in the CB.
- (5) Assigns a lead FCB to assist with assessment of joint concept proposals and development/review of joint concepts.
- (6) Coordinates with Joint Staff J-7 on JCD&E PoW and R&R Report briefings to the JROC and their associated bodies.

#### h. FCBs

- (1) Provides representatives from each FCB to participate in the JCD&E WG.
- (2) Coordinates with JCD&E requirement sponsors to ensure compliance with the JROC and related processes.
- (3) Participates in JCD&E PoW development and in Synch Board and JCB activities.
- (4) Uses JCD&E requirements submissions and JCD&E results during the annual JSR in October and the CGA in February.

## i. Combatant Commanders and Service Chiefs

- (1) Conduct JCD&E IAW the JCD&E PoW.
- (2) Review, comment, and endorse joint concepts via the JSAP process (reference g).
- (3) Lead writing, revision, and experimentation efforts of sponsored joint concepts in coordination with Joint Staff J-7.
  - (4) Submit JCD&E requirements via the annual CJA.
- (5) Provide representatives to the JROC, JCB, Synch Board, CB, and JCD&E WG.
- (6) Provide input to and participate in the development of the JCD&E R&R Report and the JCD&E PoW.
- (7) As applicable, act as JCD&E requirement sponsor. As a requirement sponsor, coordinate with the joint concept and/or joint experimentation sponsor(s) for project planning to address their need.
- (8) As applicable, act as a JCD&E requirement stakeholder, participating in the execution and reporting of a JCD&E project.
- 2. Responsibilities assigned to specific community bodies or sponsors are detailed in the appendixes to this enclosure.

#### APPENDIX A TO ENCLOSURE B

## JOINT CAPABILITIES BOARD (JCB)

1. The JCB will endorse the JCD&E PoW, and R&R report. Further information regarding conduct of the JCB and JROC can be found in references c, d, and f.

## 2. Membership

- a. The JCB is co-chaired by the DJ-7 and DJ-8 for all JCD&E related activities.
- b. <u>Rank</u>. A GOFO or government equivalent from the Combatant Commands, Services, and Joint Staff may participate in the JCB. GOFO or government equivalent from OSD, Defense agencies, NGB, and USCG may also be invited to attend. If a GOFO or equivalent is not available, the organization may provide a member of its organization that has delegated decision authority.
- c. <u>Minutes</u>. The JROC Secretariat via JROCM prepares minutes to record the JCB's discussions, decisions, and guidance.

## 3. JCD&E Community Responsibilities

#### a. Joint Staff

- (1) Presents Chairman's guidance and direction and advises when JCD&E decisions under consideration are not IWA such guidance and direction.
  - (2) Advises the JCB on Joint Staff issues that affect JCD&E activities.
- (3) Provides insights to capabilities currently under development, including gaps, and overlaps.
- (4) Organizes, coordinates, develops agendas, resources venues, and executes JCB meetings.
- (5) Brief appropriate JCB members on major changes to endorsed projects, with rationale.

## b. Combatant Command and Service Representatives

- (1) When appropriate, provide detailed status on outcomes, impact, insights, and recommendations from appropriate Combatant Command and Service JCD&E activities.
- (2) When acting as a concept sponsor, present status of assigned concept development efforts to the JCD&E community.
- c. <u>FCBs</u>. As required, provide JCD&E community information briefings on JCIDS activities and capability gap assessments affecting JCD&E efforts per references c and d.
- d. OSD, Defense agencies, multinational and interagency partners, NGB and USCG. Provide input from their respective organizations that may affect JCD&E activities.

#### 4. The JCB shall:

- a. Endorse the PoW for JROC approval.
- b. Endorse joint concept proposals.
- c. Endorse the JCD&E R&R report.
- d. Review significant changes to the approved JCD&E PoW including, but not limited to, significant re-scoping, addition, or cancellation of a JCD&E project addressing a JCD&E requirement.

#### APPENDIX B TO ENCLOSURE B

#### JCD&E SYNCHRONIZATION BOARD

1. The JCD&E Synch Board endorses JCD&E products for JCB endorsement and JROC approval and develops issues for JCB review and decision.

## 2. Membership

- a. The Synch Board is tri-chaired by the VDJ-7, VDJ-8, and DJOS (ODR&E).
- b. <u>Rank</u>. A GOFO or government equivalent from each member organization will attend the Synch Board. If a GOFO or equivalent is not available, or if an individual organization does not have a GOFO or equivalent assigned to the appropriate section, the organization will provide a member of their organization that has delegated decision authority.
- c. <u>Minutes</u>. DDJ-7 S&P will provide minutes to record the board's discussions, decisions, and guidance.

## 3. JCD&E Community Responsibilities

## a. Joint Staff J-7

- (1) Presents Chairman's guidance and direction. (S&P)
- (2) Provides insights to capabilities currently under development, gaps, and overlaps. (S&P and JCW)
- (3) Organizes, coordinates, develops agendas, resources venues, and hosts Synch Board. (S&P)
  - (4) Presents JCD&E PoW development status. (S&P and JCW)

#### b. Combatant Commands and Services

- (1) As required, provide detailed status on appropriate Combatant Command and Service JCD&E activities.
- (2) When acting as the concept or JE sponsor for projects addressing other organizations' submissions, inform the Synch Board of significant changes to the project as approved, including magnitude of the change(s), rationale, impact of the change(s), and appropriate recommendations for adjustments to the PoW.

- (3) Provide timely and detailed input as required to support development of the PoW, and R&R report.
- 4. JCD&E Synchronization Board shall:
  - a. Endorse and provide recommendations on the PoW to the JCB.
  - b. Provide detailed planning guidance to the JCD&E CB.
  - c. Endorse and review the R&R report.

#### APPENDIX C TO ENCLOSURE B

## JCD&E COLLABORATION BOARD (CB)

1. The JCD&E CB coordinates and endorses development of the PoW, and R&R report and develops issues for Synch Board review and endorsement. It is preferred that the session be conducted in-person. However, the board reserves the option to meet via video-teleconference, teleconference, or Web conference. DDJ-7 S&P/JCCD will determine the best means for assembling the CB.

## 2. Membership

- a. The CB is chaired by DDJ-7 S&P/JCCD.
- b. <u>Rank</u>. An O-6 or government equivalent from each member organization will attend the JCD&E CB. If an O-6 or equivalent is not available, or if an individual organization does not have an O-6 or equivalent assigned to the appropriate section, the organization will provide a member with delegated decision authority.
- c. <u>Minutes</u>. DDJ-7 S&P will provide minutes to record the board's discussions, decisions, and guidance.

## 3. JCD&E Community Responsibilities

#### a. Joint Staff J-7

- (1) Presents Chairman's guidance and direction. (S&P)
- (2) Provides insights to capabilities currently under development, gaps, and overlaps. (S&P and JCW)
- (3) Organizes, coordinates, develops agendas, resources venues, and hosts CB. (S&P)
  - (4) Presents JCD&E PoW development status. (S&P and JCW)

#### b. Combatant Commands and Services

- (1) As required, provide detailed status on appropriate Combatant Command and Service JCD&E activities.
- (2) When acting as the JCD&E requirement sponsor for JCD&E projects addressing other organizations' submissions, inform the CB of

significant changes to the project as approved, including magnitude of the change(s), rationale, impact of the change(s), and appropriate recommendations for adjustments to the PoW.

(3) Provide timely and detailed input as required to support development of the PoW, and R&R report.

#### c. FCBs

- (1) Participate in CB meetings.
- (2) Provide the JCD&E community information briefings on JCIDS activities and capability gap assessments affecting JCD&E efforts per references c and d.
- (3) Conduct an initial assessment of the JCD&E requirements against current developed capabilities and planning input memoranda and IPLs to assist campaign planning team in characterizing and prioritizing experimentation gaps.
- d. <u>Defense agencies, multinational and interagency partners, NGB, and USCG</u>
  - (1) Participate in CB meetings.
- (2) Provide input from their respective organizations that may affect JCD&E activities.

#### 4. JCD&E CB shall:

- a. Endorse the JCD&E PoW to the Synch Board.
- b. Provide detailed planning guidance to the JCD&E WG.
- c. Provide input for initial PoW development, as well as any significant PoW or joint project changes.
  - d. Support Synch Board endorsement of the final JCD&E PoW.
  - e. Review the R&R report.

#### APPENDIX D TO ENCLOSURE B

## JCD&E WORKING GROUP (WG)

- 1. The JCD&E WG represents the JCD&E community and develops the JCD&E PoW. This JCD&E WG is an action officer-level group established under the guidance and direction of the JCD&E CB to represent the JCD&E community. The JCD&E WG is activated at the start of each JCD&E PoW development cycle to coincide with the collection of CJA-generated JCD&E requirements.
- 2. <u>Membership</u>. An O-5 or government equivalent from each organization with functional expertise in the PoW planning phase that is being executed. If an O-5 or equivalent is not available, or if an individual organization does not have an O-5 or equivalent assigned to the appropriate section, the organization will provide a member with delegated decision authority.

## 3. WG Responsibilities

## a. Joint Staff J-7

- (1) Provides Chairman's guidance and direction. (S&P)
- (2) Provides insights to capabilities currently under development, gaps, and overlaps. (S&P and JCW)
- (3) IAW JSPS, conducts initial review of JCD&E requirements against other data collected from the Chairman's annual CJA. (S&P and JCW)
- (4) Provides findings to the JCD&E WG to facilitate PoW development. (S&P and JCW)
- (5) Serves as lead planner and facilitates team functions. The Joint Staff J-7 staff will conduct the bulk of the product drafting and revision required to execute JCD&E WG responsibilities. (S&P)
- (6) Organizes, coordinates, develops agendas, resources venues, and hosts JCD&E WG (as required). (S&P)
- (7) Coordinates closely with JCD&E requirement sponsors during project management, involving the sponsor in all significant decisions. Briefs major changes to endorsed projects, with rationale, to appropriate community members. (S&P and JCW)

- (8) Provides analytical support during JCD&E requirement analysis. (JCW)
- (9) Provides core writing team to facilitate detailed writing and coordinated staffing of the JCD&E PoW. (S&P)
  - (10) Presents JCD&E PoW development status. (S&P)
- (11) Provides briefings to CB, Synch Board, and JCB as required. (S&P and JCW)

## b. Combatant Commands and Services

- (1) In the event a Combatant Command or Service agrees to lead a project addressing a JCD&E requirement submitted by other community members, the JE or concept sponsor coordinates closely with submitter(s) of the JCD&E requirement during project management, involving the submitter(s) in all significant decisions. Major changes to community-endorsed projects, with rationale, will be briefed to appropriate CB, Synch Board, and JCB members.
- (2) As required, provide detailed status on appropriate Combatant Command and Service JCD&E activities.
  - (3) Participate in JCD&E requirement alignment and PoW development.
- (4) When acting as the sponsor for projects addressing other organizations' JCD&E requirements, inform the community of significant changes to the project as approved, including magnitude of the change(s), rationale, impact of the change(s), and appropriate recommendations for adjustments to the PoW.
- (5) Provide timely and detailed input as required to support development of the PoW, and R&R report.
  - (6) Submit JCD&E event results reports to the community.

#### c. FCBs

- (1) Participate in JCD&E WG meetings.
- (2) Provide information briefings on JCIDS (references c and d) activities and capability gap assessments affecting JCD&E efforts.

- (3) Conduct an initial analysis of the JCD&E requirements against current developed capabilities and planning input memoranda and reassess after receipt of the IPLs.
  - (4) Functions IAW reference d.
- d. <u>Defense agencies, multinational and interagency partners, NGB, and USCG.</u>
  - (1) Participate as required in the JCD&E WG.
- (2) Provide input from their respective organizations that may affect JCD&E activities.
- 4. JCD&E WG shall:
  - a. Develop the JCD&E PoW.
- b. Support JCD&E CB, Synch Board, and JCB endorsement of the final JCD&E PoW to the JROC for approval.
  - c. Review the R&R report.

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#### APPENDIX E TO ENCLOSURE B

## JCD&E REQUIREMENT SPONSORS

- 1. The JCD&E requirement sponsors are those JCD&E community members who submit the requirements included in the PoW.
- 2. In most cases, the JCD&E requirements sponsor is the most prominent organization that is the primary beneficiary of JCD&E activities aimed at addressing shortfalls identified by experimental objectives. In conjunction with the JE sponsor, they have a direct interest and responsibility in defining the experimentation requirements focusing on closing existing capability gaps; defining the necessary and sufficient solutions that drive experiment outcomes and objectives; and assisting the JE sponsor in identifying effective transition strategies that will enable implementation of the experimentation results.
- 3. During PoW development, JCD&E requirements from different organizations are often aligned together in order to build on identified similarities in the submitted problem set (reference b). In the case of aligned JCD&E requirements, multiple sponsors are identified to ensure accurate understanding and appropriate representation during the design, planning, and conduct of experimentation activities.
- 4. A JCD&E requirement sponsor has direct interest in: the experiment's initial input; shaping activities; review of products; and conduct of the experiment. The requirement sponsor may also have limited assets to contribute to the experiment. The sponsor could represent an operational joint command (such as a Combatant Command) or a Service/Joint Staff organization. Typical responsibilities of a sponsor include:
- a. Submitting JCD&E requirements that include an effective statement of the military problem and focused experimental objectives suitable to support rigorous joint experimentation.
- b. Identifying specific experimental objectives defining the areas of examination and study constituting the functional focus areas which, if solved, address the capability shortfalls related to the stated problem. Maintaining a proactive dialogue and active collaboration with the JE sponsor ensuring solutions are adequately defined in terms of content, format, and data standards to enable rapid and efficient transition to the Warfighter.
- c. Supporting the JCD&E WG through active participation in analysis and definition of solution requirements (to include setting measures of effectiveness, thresholds, and objectives) that focus experimentation efforts on

specific, measureable, and actionable results that if successful result in some degree of gap closure.

- d. Formalizing an experiment support agreement (ESA) with the JE sponsor to provide necessary and sufficient support, within a collaborative environment, to ensure experimentation activities are adequate and focused on effective solutions.
- e. Providing assistance to the JE sponsor in identifying and acquiring required resources necessary during the experiment life cycle.
- f. Assisting in providing and/or facilitating required information exchange necessary for supporting valid experimentation.
- g. Assisting with critical path planning, status and transition conferences, and/or senior decision maker reviews designed as key decision points.
- h. Coordinating with the JE sponsor to provide status updates to JCD&E CB, and R&R report as required. These updates should include continued assessment of JCD&E requirement validity and information regarding resolution of experimental questions, including solution transition status (if available).
- i. Coordinating with the JE sponsor and Joint Staff J-7 (if not JE sponsor), establishing and maintaining clear communication of JE intent, objectives, and solutions to applicable Capability Portfolio Manager (CPM) and FCB.
- j. Collaborating with the JE sponsor, Joint Staff J-7 (if not JE sponsor), and necessary JCD&E partners in identifying requirements and responsibilities to successfully transition capabilities or conceptual solutions. Supporting the JE sponsor in developing a transition strategy and supporting the Transition Manager in developing the Transition Implementation Plan.

#### APPENDIX F TO ENCLOSURE B

#### JOINT CONCEPT SPONSORS

- 1. During the Chairman's CJA, Combatant Commanders and Service Chiefs may propose new joint concepts for development. CJA-submitted proposals will be evaluated by the JCD&E WG and formally reviewed by the JCD&E community. An out-of-cycle joint concept proposal may be submitted for review as it occurs throughout the year. Regardless of whether a concept proposal is submitted via the CJA or out-of cycle, all proposals will be reviewed and vetted through the JCD&E governance.
- 2. A joint concept sponsor is the organization with primary lead for proposing, writing, and assessing assigned concepts. Specific responsibilities are:
- a. Proposing, writing, and assessing assigned joint concepts in collaboration with Joint Staff J-7.
- b. Coordinating with Joint Staff J-7 to establish a timeline for concept writing and assessment.
- c. Providing concept updates and maintaining schedule and milestone information in the JCD&E KMT.
- d. Participating in Red Team reviews and providing a response to DDJ-7 S&P on key Red Team comments during the concept development process and prior to submitting the concept for its initial JSAP review.
  - e. Reviewing and adjudicating comments resulting from concept staffing.
- f. Coordinating with Joint Staff J-7 in conducting and participating in comment resolution conferences, as required.
- g. Coordinating joint concept assessments (e.g., limited objective experiments, and war games) with Joint Staff J-7.
- h. Ensuring joint experimentation is planned as appropriate to support concept development.
- i. Conducting and coordinating capabilities-based assessments (CBA) as required or directed. If the sponsor intends to write a concept that develops specific capability change recommendations, the concept proposal must identify the CBA sponsor.

- j. Providing Joint Staff J-7 with lessons learned following completion of the concept writing phase.
- k. Maintaining visibility on the approved concept through all subsequent phases of assessment or joint experimentation and transition.
- 1. Notifying the JCD&E community when the concept is no longer active and should be transitioned to inactive status and archived.

#### APPENDIX G TO ENCLOSURE B

## JOINT EXPERIMENTATION (JE) SPONSORS

- 1. The JE sponsor, in close coordination with appropriate JCD&E requirement sponsors, is responsible for leading the organization, planning, design, execution, and reporting efforts of a specific experimentation campaign or individual line of experimentation.
- 2. The JE sponsor may decide to seek support from and incorporate JCD&E community members or other JE partners having similar interests. JE partners may include representatives from a variety of organizations such as a defense agency, academia, or industry.
- 3. The JE sponsor works in collaboration with the JCD&E requirement sponsor to ensure the experiment is aligned appropriately with stated experimental objectives and the products/outcomes of the experiment support an effective transition strategy supporting the Warfighter. Major changes to approved projects will be briefed to appropriate community members, providing supporting rationale.
- 4. The ESA, signed by key sponsors and participants, will delineate JE sponsor responsibilities for each experiment. Typical responsibilities of JE sponsors include:
- a. Establishing early and consistent communications with the JCD&E requirement sponsor(s).
  - b. Creating a formal ESA defining roles and responsibilities.
- c. Decomposing the statement of the military problem, focusing on formulating and defining the specific problems to be used within the experiment. Deviation from the submitted JCD&E requirement requires coordination with the sponsor and Joint Staff J-7.
- d. Coordinating with the JCD&E requirement sponsor and Joint Staff J-7 in identifying and acquiring required resources necessary during the experiment life cycle.
- e. Identifying critical information and requirements for subject matter expert support.
  - f. Conducting and documenting baseline assessment.

- g. Documenting gaps and solutions with appropriate measures and metrics to determine effects observed/realized during experimentation.
- h. Developing a JE support organization from within JCD&E community to provide support throughout the JE life cycle.
- i. Developing an experiment plan (or experiment campaign combining various experimentation activities focusing on separate solutions that when integrated build capability and validity) to address the JCD&E requirement. This will be completed in coordination with the sponsor(s) and Joint Staff J-7. After the JE plan is approved by the JROC as part of the PoW, the JE sponsor will inform the community if major changes to the project are contemplated.
- j. Planning and conducting necessary conferences, seminars, workshops, war games, experiments, etc.
- k. Developing experiment documents such as Experimentation Design Document, Control Document, Data Collection and Analysis Plan, etc., needed to identify requirements and schedule resources.
- 1. Providing joint experimentation updates at JCD&E community meetings and maintains schedule and milestone information in the JCD&E KMT.
- m. Coordinating with the JCD&E requirement sponsor and Joint Staff J-7 in communicating JE intent, objectives, and solutions to applicable CPM and FCB.
- n. Collaborating with the JCD&E sponsor and appropriate Change Agents (reference b), produces a transition strategy for the project.
- o. Identifying the Transition Manager responsible for developing and executing the Transition Implementation Plan.
  - p. Providing inputs to the R&R report.

#### ENCLOSURE C

#### REFERENCES

- a. Title 10, United States Code, sections 153, 163, 166, 181, and 485
- b. CJCSM 3010.02 Series, "Manual for Joint Concept Development and Experimentation (JCD&E)" (in development)
- c. CJCSI 3170.01 Series, "Joint Capabilities Integration and Development System"
- d. Manual for the Operation of the Joint Capabilities Integration and Development System, July 2009
- e. CJCSI 3100.01 Series, "Joint Strategic Planning System (JSPS)"
- f. CJCSI 5123.01 Series, "Charter of the Joint Requirements Oversight Council"
- g. CJCSI 5711.01 Series, "Action Processing"

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#### **GLOSSARY**

## ABBREVIATIONS AND ACRONYMS

AO action officer

CB collaboration board

CBA capabilities-based assessment

CCJO Capstone Concept for Joint Operations
CD&E Concept Development and Experimentation

CGA Capability Gap Analysis

CJA Comprehensive Joint 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

CPM Capability Portfolio Manager

DCR DOTMLPF-P Change Recommendation

DJOS (ODR&E) Director for Joint Operations Support; the Office of the

Director for Research and Engineering

DJS Director of the Joint Staff

DJ-7 Director for Joint Force Development, Joint Staff J-7 DJ-8 Director of Force Structure, Resources, and Assessment,

Joint Staff J-8

DOTMLPF-P doctrine, organization, training, materiel, leadership and

education, personnel, and facilities, and policy

DoD Department of Defense

ESA experiment support agreement

FCB Functional Capabilities Board

FY fiscal year

GOFO General Officer/Flag Officer

IAW in accordance with

JCA Joint Capability Area JCB Joint Capabilities Board

JCCD Joint Concepts to Capabilities Division

JCD&E Joint Concept Development and Experimentation
JCIDS Joint Capabilities Integration and Development System

JCS Joint Chiefs of Staff

JCW Joint and Coalition Warfighting

JE joint experimentation

JIC joint integrating concept JOC joint operating concept

JROC Joint Requirements Oversight Council

JROCM Joint Requirements Oversight Council Memorandum

JSAP Joint Staff Action Process

JSPS Joint Strategic Planning System

JSR Joint Strategy Review

KMT knowledge management tool

NGB National Guard Bureau NMS National Military Strategy

OSD Office of the Secretary of Defense

PoW program of work

R&R Results and Recommendations

S&P Strategy and Policy
SecDef Secretary of Defense
Synch Board Synchronization Board

USCG United States Coast Guard

VDJ-7 Vice Director for Joint Force Development, Joint Staff J-7

VDJ-8 Vice Director of Force Structure, Resources, and

Assessment, Joint Staff J-8

WG working group

#### PART II -- DEFINITIONS

Unless otherwise stated, the terms and definitions contained in this glossary are for the purposes of this instruction only.

<u>Analysis</u> -- An examination of a problem, its elements, and their relationships in order to understand and express the results in terms of usable and relevant information.

<u>Capabilities-Based Assessment</u> -- The portion of the Joint Capabilities Integration and Development System analysis process that identifies capability and supportability shortfalls, gaps, and redundancies on specific capability needs.

<u>Capability Gaps</u> -- The inability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks.

<u>Change Agent</u> -- Individual or organization that has the resources, authority, capability and capacity to transition experimentation results into warfighter capabilities and solutions.

<u>Comprehensive Joint Assessment</u> -- The Comprehensive Joint Assessment is a formal holistic strategic assessment process that provides a common informational baseline and strategic picture.

<u>Doctrine</u>, <u>organization</u>, <u>training</u>, <u>materiel</u>, <u>leadership</u> and <u>education</u>, <u>personnel</u> and <u>facilities</u>, and <u>policy</u> (<u>DOTMLPF-P</u>) <u>Change Recommendation</u> (<u>DCR</u>) -- A recommendation for changes to existing joint resources, when such changes are not associated with a new defense acquisition program.

<u>Experiment</u> -- A process to explore the effects of manipulating a variable; an analytical activity to determine the efficacy of something previously untried, examine the validity of a hypothesis, or demonstrate a known or believed truth within a specific context.

<u>Experiment Campaign</u> -- A design approach that integrates a sequence of related experiments, studies and/or analytical activities designed to advance the understanding of the problem under examination.

<u>Experiment Design or Experimental Design</u> -- A detailed description of the methods, techniques, analytical methods and tools that will be used in undertaking an experiment.

<u>Functional Capabilities Board</u> -- A permanently established body that is responsible for the organization and analysis of joint warfighting capabilities within an assigned functional area.

<u>Hypothesis</u> -- An assertion, proposition, or statement about relations or constraints whose truth-value is as yet unknown, but in principle is determinable by tests involving generally empirical but also logical evidence. Hypotheses can be formulated as "if-then" statements: "If A (proposed solution), then B (effect: problem overcome)."

<u>Joint Capability Area</u> -- Collections of like Department of Defense capabilities functionally grouped to support capability analysis, strategy development,

investment decision making, capability portfolio management, and capabilitiesbased force development and operational planning.

<u>Joint Capabilities Board</u> -- Assists the Joint Requirements Oversight Council in carrying out its duties and responsibilities.

<u>Joint Concept</u> -- Links strategic guidance to the development and employment of future joint force capabilities and serve as "engines for transformation" that may ultimately lead to doctrine, organization, training, materiel, leadership and education, personnel and facilities, and policy (DOTMLPF-P) changes.

<u>Joint Concept Sponsor</u> -- The organization with primary lead for proposing, writing, and assessing assigned concepts.

Joint Concept Development & Experimentation Analysis -- Process led by the Joint Concept Development & Experimentation Working Group to identify ongoing activities that may already be addressing applicable JCD&E requirements in order to determine where additional focus/level of effort is needed to help resolve the JCD&E requirement.

<u>Joint Concept Development and Experimentation Community</u> -- An organization made up of JCD&E stakeholders for the purposes of managing and providing oversight of the DOD JCD&E activities.

<u>Joint Concept Development & Experimentation Requirement</u> -- Submitted by Combatant Commanders or Service Chiefs to identify those mission areas that have potential capability gaps or weaknesses in future operations.

<u>Joint Concept Development & Experimentation Requirements Sponsor</u> -- The community member who submits the JCD&E requirement.

<u>Joint Context</u> -- A flexible and scalable application of joint capabilities into experimentation to better enable common transformational outcomes. Provides a common joint problem set based on JCD&E requirements that applies an acceptable JCD&E community approach to developing outcomes and products that provide meaningful and relevant solutions.

<u>Joint Experiment</u> -- A set of analytic activities derived from unbiased trials conducted under controlled conditions within a representative environment in order to help solve joint challenges/problems/issues. A joint experiment, as conducted by the JCD&E community, is used to discover unknown operational or technical requirements, to test or validate a hypothesis, or to establish or demonstrate some knowledge within a specific context.

<u>Joint Experimentation</u> -- The conduct of joint experiments designed to identify capability gaps and develop solutions to joint problems which incorporate appropriate joint context.

<u>Joint Experimentation Sponsor</u> -- The organization responsible for leading the organization, planning, design, execution, and reporting efforts of a specified experimentation campaign or individual line of experimentation.

<u>Joint Force Development</u> -- The deliberate, iterative, and continuous process of planning and developing the current and future joint force.

Joint Strategic Planning System -- One of the primary means by which the Chairman of the Joint Chiefs of Staff, in consultation with the other members of the Joint Chiefs of Staff and the Combatant Commanders, carries out the statutory responsibilities to assist the President and Secretary of Defense in providing strategic direction to the Armed Forces; prepares strategic plans; prepares and reviews joint operation plans; advises the President and Secretary of Defense on requirements, programs, and budgets; and provides net assessment on the capabilities of the Armed Forces of the United States and its allies as compared with those of their potential adversaries. Also called JSPS. (JP 5-0)

<u>Joint Strategy Review</u> -- The synthesis of Comprehensive Joint Assessment information along with Joint Staff functional estimates and processes that inform development of the Chairman's advice and directive activities.

<u>Line of Experimentation</u> -- An integrated set of JCD&E activities that systematically investigate and evaluative potential capability solutions to comprehensively address a group of JCD&E requirements.

<u>Materiel Solution</u> -- Correction of a deficiency, satisfaction of a capability gap, or incorporation of new technology that results in the development, acquisition, procurement, or fielding of a new item (including ships, tanks, self-propelled weapons, aircraft, etc., and related software, spares, repair parts, and support equipment, but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support military activities without disruption as to its application for administrative or combat purposes.

<u>Non-materiel Solution</u> -- Changes in doctrine, organization, training, leadership and education, personnel, and facilities and policy (including all human systems integration domains) to satisfy identified functional capabilities.

<u>Project</u> -- For the purposes of JCD&E, a finite joint experimentation or concept development endeavor having specific start and completion dates, undertaken to meet particular goals and objectives, usually to bring about beneficial

change or added value. JCD&E projects are established to deliver specific results based on a defined statement of a military problem.

<u>Program of Work</u> -- A comprehensive plan of Joint Concept Development & Experimentation for the next fiscal year.

<u>Recommendation</u> -- A relevant, proposed action determined to be appropriate and advisable based on analysis of data.

<u>Requirement</u> -- An established need justifying the timely allocation of resources to accomplish approved military objectives, missions or tasks.

<u>Stakeholders</u> -- The stakeholder is the organization or entity that is positively or negatively affected by the results of the Joint Concept Development & Experimentation efforts, or who has a key contributing role in the project.

<u>Transfer</u> -- As it pertains to Joint Concept Development and Experimentation, is the transference of JCD&E products to the appropriate joint change agent or process for implementation or further development (i.e., the Joint Doctrine Development System, CJCSI 5120 Series).

<u>Transition</u> -- The successful implementation of solutions, identified through JCD&E efforts, which drives meaningful change to solve challenges for joint Warfighters.

<u>Transition Implementation Plan</u> -- Document that describes detailed courses of action for passing findings and conclusions to JCD&E requirements sponsors and other interested parties.

<u>Transition Manager</u> -- A member of the Experiment Planning Team who is responsible for supporting the Transition Strategy and developing / executing the Transition Implementation Plan in collaboration with JCD&E requirement sponsor, JE sponsor, appropriate Change Agents, and other key stakeholders.

<u>Transition Pathway, Formal</u> -- A transition pathway to provide required joint capabilities, through either materiel or non-materiel solutions, which address validated joint requirements and intend to secure suitable funding for long-term sustainment and implementation across the joint force. Currently, this pathway is defined by the CJCSI 3170.01 Series as the Joint Capabilities Integration and Development System (JCIDS).

<u>Transition Pathway, Informal</u> -- Any transition pathway intended to implement a materiel or non-materiel solution through the most expedient means outside the JCIDS process. Characteristically these pathways provide stakeholder-specific or interim solutions to address capability gaps and immediate needs.

Long-term funding or joint implementation of these solutions will typically require follow-on transition via the JCIDS process.

<u>Transition Strategy</u> -- Plan developed by the joint experimentation sponsor to identify primary/major potential transition paths and targets.

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