Department of Defense
INSTRUCTION

NUMBER 3150.09
September 17, 2008
Incorporating Change 1, August 17, 2009

USD(AT&L)

SUBJECT: The Chemical, Biological, Radiological, and Nuclear (CBRN) Survivability Policy

References: See Enclosure 1

1. PURPOSE. This Instruction:

a. Consistent with DoD Directive 5134.8 (Reference (a)), implements policy and requirements according to section 1053 of Public Law 108-375 (2004) (Reference (b)), and established in DoD Directive 5000.01 (Reference (c)), DoD Instruction 5000.2 (Reference (d)), DoD Directive S-5210.81 (Reference (e)), CJCS Instruction 3170.01F (Reference (f)), DoD Directive 3020.40 (Reference (g)), and CJCS Manual 3170.01C (Reference (h)) in accordance with (IAW) the authority in DoD Directive 5134.01 (Reference (i)).

b. Assigns responsibilities for the execution of the DoD CBRN Survivability Policy.

c. Establishes processes for ensuring the survivability of CBRN mission-critical systems in a chemical, biological, and radiological (CBR) environment or a nuclear environment.

d. Describes how CBRN mission-critical systems will be identified, reviewed, and considered in the context of the Joint Capabilities Integration and Development System (JCIDS) (Reference (f)), the Defense Acquisition System (References (c) and (d)), the Missile Defense Agency System Engineering Plan (Reference (j)), or the National Security Space Acquisition Policy (Reference (k)), as appropriate.

e. Provides definitions of decontaminability, hardness, compatibility, and decontamination (see Glossary).

f. Aligns with the Defense Critical Infrastructure Program (DCIP) under Reference (g) to identify mission-critical systems.

g. Requires Military Departments and the Missile Defense Agency to report annually on CBRN survivability compliance, proposed corrective actions, and funding plans.

h. Establishes the CBRN Survivability Oversight Group (CSOG). The purpose of CSOG is to review and monitor the execution of the DoD CBRN Survivability Policy.

2. APPLICABILITY. This Instruction applies to:

a. The Office of the Secretary of Defense, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense (hereafter referred to collectively as the "DoD Components").

b. All CBRN mission-critical systems regardless of Acquisition Category (ACAT).

3. POLICY. It is DoD policy that:

a. CBRN survivability will require DoD CBRN mission-critical systems be CBRN survivable IAW their capabilities documents' survivability requirements. The attributes and values establishing the threshold and objective requirements will be clearly stated in the capability development documents (CDD(s)) and capability production documents (CPD(s)). CBRN survivability of DoD CBRN mission-critical systems will be accomplished by material measures or remediation of vulnerabilities through tactics, techniques, and procedures (TTP) throughout the systems' life cycles, and by regularly assessing whether the systems are survivable.

b. CBRN survivability may be achieved by hardening, TTP, or another mitigation procedure as funding allows. All CBRN mission-critical systems under development, as a part of a DoD Acquisition Program, are required to address CBRN survivability at each milestone. Legacy CBRN mission-critical systems undergoing a capabilities document review are also required to address CBRN survivability. All other legacy CBRN mission-critical systems may be made CBRN survivable.

c. For nuclear command and control (NC2) system facilities and equipment, CBRN mission-critical systems must be nuclear hardened and have a continuing hardness maintenance and hardness surveillance (HM/HS) program (see Reference (e), CJCS Instruction 3222.01A (Reference (l)), and CJCS Instruction 6810.01A (Reference (m)).

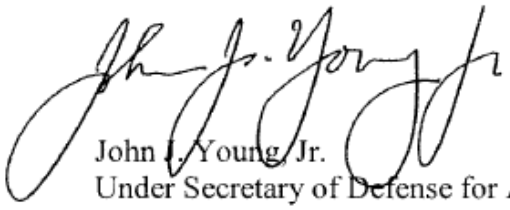
4. RESPONSIBILITIES. See Enclosure 2.

5. PROCEDURES. See Enclosure 3.

6. INFORMATION REQUIREMENTS. The reporting requirements in this Instruction have been assigned Report Control Symbol (RCS) DD-AT&L(A) 2330 IAW DoD 8910.1-M (Reference (n)).

7. RELEASABILITY. UNLIMITED. This Instruction is approved for public release. Copies may be obtained through the Internet from the DoD Issuances Web Site at http://www.dtic.mil/whs/directives.

8. EFFECTIVE DATE. This Instruction is effective immediately.



John J. Young, Jr.
Under Secretary of Defense for Acquisition, Technology and Logistics

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1. References
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REFERENCES

(a) DoD Directive 5134.*0*8, "Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs (ATSD(NCB))," ~~June 8, 1994~~*January 14, 2009*

(b) Section 1053 of Public Law 108-375, "Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005," October 28, 2004

(c) DoD Directive 5000.01, "The Defense Acquisition System," May 12, 2003

(d) DoD Instruction 5000.*0*2, "Operation of the Defense Acquisition System," ~~May 12, 2003~~ *December 8, 2008*

(e) DoD Directive S-5210.81, "United States Nuclear Weapons Command and Control, Safety, and Security (U)," August 8, 2005

(f) CJCS Instruction 3170.01F "Joint Capabilities Integration and Development System," May 1, 2007

(g) DoD Directive 3020.40, "Defense Critical Infrastructure Program (DCIP),"August 19, 2005

(h) CJCS Manual 3170.01C, "Operation of the Joint Capabilities Integration and Development System," May 1, 2007

(i) DoD Directive 5134.01, "Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)," December 9, 2005

(j) Missile Defense Agency Ballistic Missile Defense System Engineering Program, Systems Engineering Plan (SEP), DOC-3280.AA-SE-PLAN-REV0, June 13, 2006[1]

(k) National Security Space Acquisition Policy Number 03-01, "Guidance for DoD Space Systems Acquisition Process," December 27, 2004

(l) CJCS Instruction 3222.01A, "CJCS Requirements for High Altitude Electromagnetic Pulse Protection of Nuclear C3 Nodes and Systems (U)," February 1, 2007

(m) CJCS Instruction 6810.01A, "Critical Nuclear Command and Control (NC2) Equipment and Facilities (U)," February 1, 2007

(n) DoD 8910.1-M, "DoD Procedures for Management of Information Requirements," June 30, 1998

(o) National Security Presidential Directive No. 51 and No. 20, "National Security Presidential Directive 5I / Homeland Security Presidential Directive 20," May 9, 2007

(p) North Atlantic Treaty Organization Standardization Agreement 4145, "Nuclear Survivability Criteria for Armed Forces Materiel and Installations - AEP-14," January 29, 1991[1]

(q) North Atlantic Treaty Organization Standardization Agreement 4521, "Nuclear, Biological, Chemical (NBC) Defense Factors in the Design, Test and Acceptance of Military Equipment - AEP-7," June 6, 1995[1]

(r) DoD Directive 3150.06, "U.S. Nuclear Command and Control System Support Staff," August 25, 2006

[1] *Available through the Office of the Deputy Assistant to the Secretary of Defense (Nuclear Matters).*

ENCLOSURE 2

RESPONSIBILITIES

1. UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS (USD(AT&L)). The USD(AT&L) shall:

a. Ensure CBRN survivability is integrated into the DoD Acquisition System.

b. Support the acquisition, operation, maintenance, and sustainment (life-cycle management) of systems and required CBRN test facilities.

c. Ensure that CBRN survivability is incorporated into the programs of instruction at the Defense Acquisition University.

d. Ensure that CBRN mission-critical systems on the OSD Test and Evaluation (T&E) Oversight List are noted as CBRN mission-critical. Ensure that the developmental test policy requires the assessment of CBRN survivability requirements for CBRN mission-critical systems on the OSD T&E Oversight List.

e. Ensure, in coordination with the Director of Operational Test and Evaluation (DOT&E), that the Department of Defense can test and certify to threat-level threat environments, as practical.

2. DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING (DDR&E). The DDR&E under the authority, direction, and control of USD(AT&L), shall:

a. Support the research, development, test, and evaluation (RDT&E) programs for CBRN survivability. Develop and advocate budget requests for the maintenance and upgrading of testing facilities. Coordinate with the T&E Executive for the CBDP regarding facilities using chemical or biological warfare agents.

b. Provide regular technical reports to the CSOG as requested by the ATSD(NCB).

c. Assist in the development of system-level CBRN testing protocols. Develop testing protocols and models for materials testing for the survivability databases. Obtain approval of testing protocols using chemical and biological warfare agents from the T&E Executive for CBDP.

d. Provide representation to the CSOG.

3. DIRECTOR, MISSILE DEFENSE AGENCY (DMDA). The DMDA, under the authority, direction, and control of the USD(AT&L), shall report a list of mission-critical systems, CBRN

mission-critical systems, and the current CBRN survivability status of its CBRN mission-critical systems to ATSD(NCB) annually, by December 31.

4. ATSD(NCB). The ATSD(NCB), under the authority, direction, and control of the USD(AT&L), shall:

a. Oversee and coordinate the execution of the DoD CBRN Survivability Policy. The ATSD(NCB) shall direct the implementation of CBRN survivability in DoD issuances.

b. Act as an advisor to the Secretary of Defense on the technical aspects of CBRN survivability.

c. Constitute and chair the CSOG IAW the guidance in Enclosure 3.

d. Advise the Milestone Decision Authority (MDA), through the Overarching Integrated Process Team, on the adequacy of the CBRN survivability and hardening of each ACAT 1 CBRN mission-critical system program addressed by the MDA.

e. Advise the Joint Requirements Oversight Council (JROC), through the appropriate Functional Capabilities Board (FCB), on the adequacy of the CBRN survivability and hardening of each CBRN mission-critical system program addressed by JROC.

f. Develop and maintain CBRN survivability environmental standards and testing protocols, including minimum CBRN decontamination standards for operational use. The T&E Executive for the Chemical Biological Defense Program (CBDP) will support these activities and is the delegated approval authority of test protocols and facilities requiring the use of chemical or biological warfare agents.

g. Serve as the DoD principal POC for coordination and exchange of information with other Federal departments on CBRN survivability issues.

h. Serve as the DoD principal POC for reports to Congress on the progress of the execution of the CBRN Survivability Policy.

i. Serve as the technical advisor for the validation of intelligence requirements related to CBRN threats to defense systems.

j. Serve as the DoD representative on international panels, such as the North Atlantic Treaty Organization, developing standards and criteria for CBRN survivability.

k. Review CBRN survivability reports and other CBRN-related documents from Military Departments and the Missile Defense Agency.

l. Establish, maintain, and update a nuclear and CBR database(s) that address associated phenomenologies, materials effects, and damage assessment criteria.

m. Assess the T&E infrastructure and identify essential requirements to support DoD CBRN Survivability Policy initiatives.

n. Oversee CBRN survivability RDT&E.

o. Serve as the OSD principal staff assistant (PSA) for implementing the DoD CBRN Survivability Policy for nuclear weapons systems and supporting equipment.

5. DIRECTOR, DEFENSE THREAT REDUCTION AGENCY (DTRA). The Director, DTRA, under the authority, direction, and control of the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs (ATSD(NCB)), shall:

a. Appoint a principal point of contact (POC) to assist ATSD(NCB) in leveraging the technology base programs that support CBRN survivability and to coordinate on CBRN survivability RDT&E.

b. Provide technical support on CBRN survivability matters to ATSD(NCB).

c. Assist in the development of CBRN survivability standards, environments, CBRN weapons effects, and testing protocols based on CBRN weapons effects.

d. Provide guidance and technical assistance to DoD Components for nuclear effects testing, simulators, or simulation, including coordinating the use of Department of Energy assets.

e. Assist the DoD Components in testing for CBRN survivability.

f. Review capabilities documents for CBRN mission-critical systems and NC2 military construction initiatives to ensure CBRN survivability is properly addressed.

g. Provide representation to the CSOG.

6. DEPUTY ASSISTANT TO THE SECRETARY OF DEFENSE FOR NUCLEAR MATTERS (DATSD(NM)). The DATSD(NM) under the authority, direction, and control of ATSD(NCB), shall:

a. Provide assistance regarding nuclear and life-cycle nuclear survivability requirements for CBRN mission-critical systems and functions to DoD Components and sponsors on the programs that will undergo an acquisition milestone decision or transition through a capabilities document approval.

b. Compile a list of lessons learned on nuclear survivability and distribute this list to combat and materiel developers.

c. Ensure the creation and maintenance of an education program, including best practices, for program, project, and/or product managers on how to implement the nuclear survivability program.

d. Contribute to the development of a nuclear survivability database.

e. Appoint a principal POC for system-level nuclear survivability to assist the ATSD(NCB).

f. Advise JROC, through the appropriate FCB, regarding nuclear survivability requirements for CBRN mission-critical systems.

g. Provide technical advice to the CSOG on nuclear survivability issues.

7. DEPUTY ASSISTANT TO THE SECRETARY OF DEFENSE FOR CHEMICAL BIOLOGICAL DEFENSE AND CHEMICAL DEMILITARIZATION PROGRAMS (DATSD(CBD&CDP)). The DATSD(CBD&CDP), under the authority, direction, and control of ATSD(NCB), shall:

a. Provide assistance regarding CBR contamination survivability requirements for CBRN mission-critical systems to DoD Components and sponsors on the programs that will undergo an acquisition milestone decision or transition through a capabilities document approval.

(1) Compile a list of lessons learned and best practices regarding CBR contamination survivability and distribute this list to combat and materiel developers and the Joint Requirements Office for CBRN Defense (CBRND).

(2) Provide support to the Joint CBRND Program Analysis and Integration Office to develop the scope and maintain the Chemical and Biological Materials Effects Database.

b. Appoint a principal POC for system-level CBR contamination survivability to assist ATSD(NCB).

c. Provide technical advice to the CSOG on CBR contamination survivability issues.

8. UNDER SECRETARY OF DEFENSE FOR POLICY (USD(P)). The USD(P) shall:

a. Serve as the point of coordination for policy implications on arms control, deployment considerations, and allied perceptions of CBRN survivability issues and initiatives, including incorporation of survivability requirements in shared systems such as those employed by the North American Aerospace Defense Command.

b. Identify and assess new and evolving policy and strategy trends that may impact the CBRN survivability of CBRN mission-critical systems.

c. Oversee development of international partnership capacity as it relates to CBRN survivability of CBRN mission-critical systems.

d. Provide representation to the CSOG.

9. ASSISTANT SECRETARY OF DEFENSE FOR HOMELAND DEFENSE AND AMERICA'S SECURITY AFFAIRS (ASD(HD&ASA)). The ASD(HD&ASA), under the USD(P), shall:

a. Serve as the point of coordination for policy implications on continuity matters including the DoD implementation of the National Continuity Policy (National Security Presidential Directive 5I/Homeland Security Presidential Directive 20 (Reference (o))).

b. Serve as the OSD PSA for implementing DoD CBRN Survivability Policy for homeland defense, critical infrastructure, and continuity matters.

c. Provide representation to the CSOG.

10. UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS (USD(P&R)). The USD(P&R) shall:

a. Serve as the point of coordination for personnel and readiness implications on CBRN survivability issues and initiatives.

b. Provide representation to the CSOG.

11. UNDER SECRETARY OF DEFENSE FOR INTELLIGENCE (USD(I)). The USD(I) shall:

a. Serve as the point of coordination for intelligence implications on CBRN survivability issues and initiatives.

b. No less than once every 3 years, ensure that potential CBRN threats are reviewed and validated and that users are informed of those reviews.

c. Ensure that validated CBRN threat assessments are current.

~~d. Serve as the OSD PSA for implementing the DoD CBRN Survivability Policy for integrated tactical warning and attack systems.~~

~~e~~*d*. Provide representation to the CSOG.

12. DIRECTOR, DEFENSE INTELLIGENCE AGENCY (DIA). The Director, DIA, under the authority, direction, and control of USD(I), shall:

a. Ensure that intelligence collection priorities and requirements reflect the coordinated DoD CBRN Survivability Policy requirements as identified by ATSD(NCB).

b. Provide threat assessments as requested by ATSD(NCB) in support of the DoD CBRN Survivability Policy.

c. Provide representation to the CSOG.

13. UNDER SECRETARY OF DEFENSE (COMPTROLLER)/DOD CHIEF FINANCIAL OFFICER (USD(C)/CFO). The USD(C)/CFO shall assess the budgetary effects of DoD CBRN Survivability Policy issues and initiatives.

14. ASSISTANT SECRETARY OF DEFENSE NETWORKS AND INFORMATION INTEGRATION/DOD CHIEF INFORMATION OFFICER (ASD(NII)/DoD CIO). The ASD(NII)/DoD CIO shall:

a. Serve as the OSD PSA for ~~implementing~~ *overseeing implementation of* DoD CBRN Survivability Policy for command, control, communications, and computer systems. *This includes all nuclear command, control, and communication mission areas, to include integrated tactical warning and attack assessment systems.*

b. Ensure CBRN survivability is planned, developed, evaluated, and maintained for Global Information Grid (GIG) capabilities on which critical DoD missions are reliant.

c. Provide electromagnetic environmental effects policy, guidance, and requirements for acquisition programs and coordinate the integration of these criteria into the DoD CBRN Survivability Policy with ATSD(NCB).

d. Provide representation to the CSOG.

15. DIRECTOR, DEFENSE INFORMATION SYSTEMS AGENCY (DISA). The Director, DISA, under the authority, direction, and control of ASD(NII)/DoD CIO, shall:

a. Monitor DoD CBRN Survivability Policy activities for applicability to, or impact on, current and future command, control, and communication programs.

b. Provide technical support to ASD(NII)/DoD CIO and ATSD(NCB) on nuclear-related information systems used to provide assured connectivity to CBRN mission-critical systems throughout the entire CBRN effects threat spectrum.

c. Provide technical evaluation support to ASD(NII)/DoD CIO and ATSD(NCB) on CBRN-related effects to the GIG from failure of "critical" non-DoD support services. These support services include, but are not limited to, electrical grid, coolant services, access to GIG facilities, and sustainability from local communities and their support services.

d. Provide representation to the CSOG.

16. DOT&E. The DOT&E shall:

a. Ensure CBRN survivability is considered when evaluating or assessing CBRN mission-critical systems on the OSD T&E Oversight List.

b. Provide representation to the CSOG.

17. DIRECTOR OF ~~PROGRAM ANALYSIS AND EVALUATION (DPA&E)~~ *COST ASSESSMENT AND PROGRAM EVALUATION (DCAPE)*. The ~~DPA&E~~ *DCAPE* shall:

a. Assess the programmatic impacts of DoD CBRN Survivability Policy issues and initiatives for USD(AT&L).

b. Provide representation to the CSOG.

18. SECRETARIES OF THE MILITARY DEPARTMENTS. The Secretaries of the Military Departments shall:

a. Validate sponsor's designation of CBRN mission-critical systems in capabilities documents. For those systems (or associated functions) designated as CBRN mission critical, ensure that CBRN survivability capabilities are documented in the capabilities documents.

b. Identify legacy CBRN mission-critical systems and develop and implement a plan to assess their vulnerability. For those assessed as vulnerable, ensure that TTP are developed to mitigate the risks, define materiel limitations, and communicate these limitations to the user.

c. Ensure an HM/HS program is established and maintained for those CBRN mission-critical systems that are hardened for nuclear survivability.

d. Provide an annual report by December 31 to the ATSD(NCB) and the Chairman of the Joint Chiefs of Staff using DD Form 2931, "Chemical, Biological, Radiological, and Nuclear (CBRN) Mission Critical Report," available at http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm. DD Form 2931 includes the following:

(1) A list of mission-critical systems and the subset of CBRN mission-critical systems.

(2) A list of CBRN mission-critical systems that transitioned through either a capabilities document approval or an acquisition milestone during the past fiscal year, including the status of each system's performance against its CBRN survivability requirements. Include lessons learned and actions taken to comply with MDA CBRN survivability guidance, including schedules and funding plans, as applicable.

(3) A list of CBRN mission-critical legacy systems reviewed in the past fiscal year, any vulnerabilities assessed, lessons learned, and actions taken, including schedules and funding plans, as applicable.

(4) A list of CBRN mission-critical systems that are hardened for nuclear survivability, including HM/HS.

e. Establish CBRN survivability criteria for threshold and objective requirements IAW Service standards, standardization agreement (STANAG) 4145 (Reference (p)) and STANAG 4521 (Reference (q)), or CSOG standards. The attributes and values establishing the threshold and objective requirements will be clearly stated in the CDD and CPD. The standards used to establish the criteria will be clearly stated in the T&E Master Plan.

f. Test and evaluate CBRN survivability of CBRN mission-critical systems to ensure that threshold requirements are met. T&E shall be IAW ATSD(NCB) testing protocols as applicable. Identify vulnerabilities and develop and implement risk mitigation TTP.

g. Ensure that survivability requirements stated in CDD and CPD for all CBRN mission-critical systems are addressed in associated acquisition strategies, program baselines, and T&E master plans.

h. Ensure that doctrine and training to support the DoD CBRN Survivability Policy (including electromagnetic pulse (EMP)) are reflected in force-on-force simulations.

i. Provide representation to the CSOG.

19. CHAIRMAN OF THE JOINT CHIEFS OF STAFF. The Chairman of the Joint Chiefs of Staff shall:

a. Appoint a principal POC to coordinate the DoD CBRN Survivability Policy. This POC will ensure coordination under this Instruction with activities of the DCIP under Reference (g).

b. Review CBRN mission-critical systems' capabilities documents (initial capabilities document (ICD), CDD, and CPD) to ensure CBRN survivability is addressed.

c. Ensure that, for programs identified as "JROC interest," the JROC will validate the system designation as CBRN mission critical; change the system's designation to or from CBRN mission critical, as necessary; and validate the CBRN survivability requirements.

d. Provide coordination and oversight of the CBRN survivability initiatives and issues to JROC and Combatant Commands; ensure that multi-Service CBRN mission-critical systems have integrated CBRN survivability requirements. Ensure CBRN mission-critical facilities and equipment of the NC2 System are nuclear hardened and CBRN survivable IAW Reference (e).

e. Provide guidance to the Military Departments and Combatant Commands in the identification of legacy CBRN mission-critical systems that should be CBRN survivable.

f. Ensure that joint doctrine and training support the DoD CBRN Survivability Policy (including EMP) in force-on-force simulations and wargames.

g. Establish mandatory key performance parameters (KPP) for nuclear survivability (including EMP hardening) for those systems covered by Reference (e). Any decision to lessen NC2 System critical asset survivability requirements must be approved by the USD(AT&L) or the ASD(NII)/DoD CIO for Major Defense Acquisition Programs (MDAP) and by Military Service Acquisition Executives for non-MDAP acquisitions.

h. Review the CBRN survivability reports provided by the Military Departments.

i. Provide representation to the CSOG.

20. COMMANDER, UNITED STATES JOINT FORCES COMMAND (USJFCOM). The Commander, USFJCOM, through the Chairman of the Joint Chiefs of Staff, shall:

a. Consider CBRN survivability in operational planning, training, force-on-force simulations and wargames, and the conduct of activities for all force postures.

b. Identify to the Chairman of the Joint Chiefs of Staff CBRN mission-critical systems under the operational control of the Commanders of the Combatant Commands, whether legacy or in development, that should be CBRN survivable and ensure that TTP are developed and used to mitigate the risks of those assessed as vulnerable.

c. Provide representation to the CSOG.

ENCLOSURE 3

PROCEDURES

1. Sponsors may use the decision tool located in Enclosure 4 to decide whether a new system is CBRN mission critical. The system's CBRN mission-critical designation and justification will be included in the CDD or CPD. The CBRN survivability requirement and attributes will be supported by analysis, threat assessments, and the system's operational concept in the projected operating environment. A CBRN threat analysis shall be included in the "Threat and Operational Environment" section in the ICD. The concept of operations shall describe how the desired capability is likely to be employed in the CBR environment or a nuclear environment and will provide explicit parameters for CBRN survivability for inclusion in the CDD or CPD.

2. When the CDD and the CPD are developed for CBRN mission-critical systems or when legacy CBRN mission-critical systems undergo capabilities document review, the sponsor shall include objective, quantitative, measurable, and testable system CBRN survivability performance attributes with threshold and objective requirements. For CBRN mission-critical systems, the CBRN survivability performance attribute(s) will be evaluated to determine KPP or key system attribute designation. They may be combined with the force protection, survivability, or net-ready KPP, if appropriate. For systems covered by Reference (e), sponsors shall establish KPP for nuclear survivability (including EMP hardening).

3. The sponsor will submit capabilities documents for review to the "Gatekeeper" of the JCIDS process IAW Reference (f). For programs designated as JROC interest, JROC will validate the system designation as CBRN mission critical, change the system's designation to or from CBRN mission critical, as necessary, and validate the CBRN survivability requirements. JROC will also validate the CBRN survivability capabilities if they have been identified as KPP. In the event that arbitration of the sponsor CBRN mission-critical designation of a non-JROC interest system is required, parties shall bring the discrepancy to the appropriate FCB for adjudication. The Services requirements authority will validate CBRN survivability requirements for non-JROC interest mission-critical systems. CBRN survivability shall be demonstrated through a combination of tests, evaluations, assessments, studies, and analyses.

a. Nuclear weapons systems, NC2 systems (as identified by the Chairman of the Joint Chiefs of Staff) and associated facilities and equipment are CBRN mission-critical systems that must be CBRN survivable and nuclear hardened IAW Reference (e).

b. Legacy systems will be reviewed by the Military Departments and the Joint Staff to determine which systems are CBRN mission critical. CBRN mission-critical systems will be assessed for CBRN survivability. For those systems assessed as vulnerable, the Military Departments will address CBRN survivability as mission and/or funding allow.

4. To change CBRN survivability requirements, the sponsors will use the JCIDS process. As early as possible in the system definition or development, the sponsor or materiel developer may seek a change in CBRN survivability requirements that are impractical or unaffordable to implement or test. Any changes in CBRN survivability requirements will be approved by the same authority that approved the capabilities documents.

5. The materiel developers shall design an acquisition strategy that satisfies CBRN survivability requirements while balancing cost, schedule, and performance. MDAs shall assess compliance with CBRN survivability requirements at each acquisition milestone review following CDD approval. The assessment will be based on the approved acquisition strategy and acquisition program baseline, derived from the CDD and CPD. ATSD(NCB) shall provide advice to the MDA concerning CBRN survivability requirements for ACAT 1 programs.

6. Materiel developers shall work with the T&E community to develop T&E master plans that realistically address the requirement to test and evaluate, model, or assess CBRN survivability requirements. Materiel developers should apply lessons learned on successful implementation of CBRN survivability measures in prior acquisition programs. Materiel developers shall ensure CBRN survivability test data are provided to sponsors, and Defense Technical Information Center, for subsequent inclusion in the CBRN material effects databases.

ENCLOSURE 4

CBRN CSOG

1. The CSOG shall be chaired by ATSD(NCB) and meet at the call of the Chair to accomplish the following:

a. Review DoD CBRN Survivability Policy goals and evaluate progress made in achieving those goals.

b. Consider the feasibility of proposed concepts and review ongoing CBRN survivability projects.

c. Ensure that CBRN survivability receives proper emphasis during the development of the defense planning guidance.

d. Monitor CBRN survivability RDT&E.

e. Monitor CBRN survivability testing programs and facilities.

f. Ensure coordination and prevent duplication between DTRA and the Military Services CBRN survivability activities and with DISA command, control, and computers activities and programs that are related to but outside the scope of this Instruction.

g. Ease the exchange of information among participants.

h. Refer recommendations of the CSOG for action by the USD(AT&L) to the applicable Defense Acquisition Board committee, OSD, the Military Departments, the Chairman of the Joint Chiefs of Staff, the Commanders of the Combatant Commands, or other applicable Defense Agencies, for consideration and resolution.

2. The following officials shall appoint a member to the CSOG:

a. Secretaries of the Military Departments.

b. Chairman of the Joint Chiefs of Staff.

c. Commandant of the Marine Corps.

d. Commanders of the Combatant Commands.

e. USD(AT&L) (may be represented by the ATSD(NCB), Chair).

f. USD(P) (to be represented by the Assistant Secretary of Defense for Global Security Affairs and ASD(HD&ASA).

g. USD(P&R).

h. USD(I)

i. ASD(NII)/DoD CIO.

j. General Counsel of the Department of Defense.

k. DOT&E.

l. ~~Director of Program Analysis and Evaluation~~ *DCAPE*.

m. DDR&E.

n. Director, DISA.

o. Director, DIA.

p. Director, DTRA.

3. The following may be invited by the CSOG Chair to send representation to CSOG meetings or to assist or support the CSOG, as required:

a. USD(C)/CFO).

b. Nuclear Weapons Council (Joint DoD and Department of Energy).

c. U.S. NC2 System Support Staff (DoDD 3150.06 Reference (r)).

d. Missile Defense Agency.

e. Air Force Space Command (when requested by US Air Force representative).

f. National Security Agency.

g. Department of Energy.

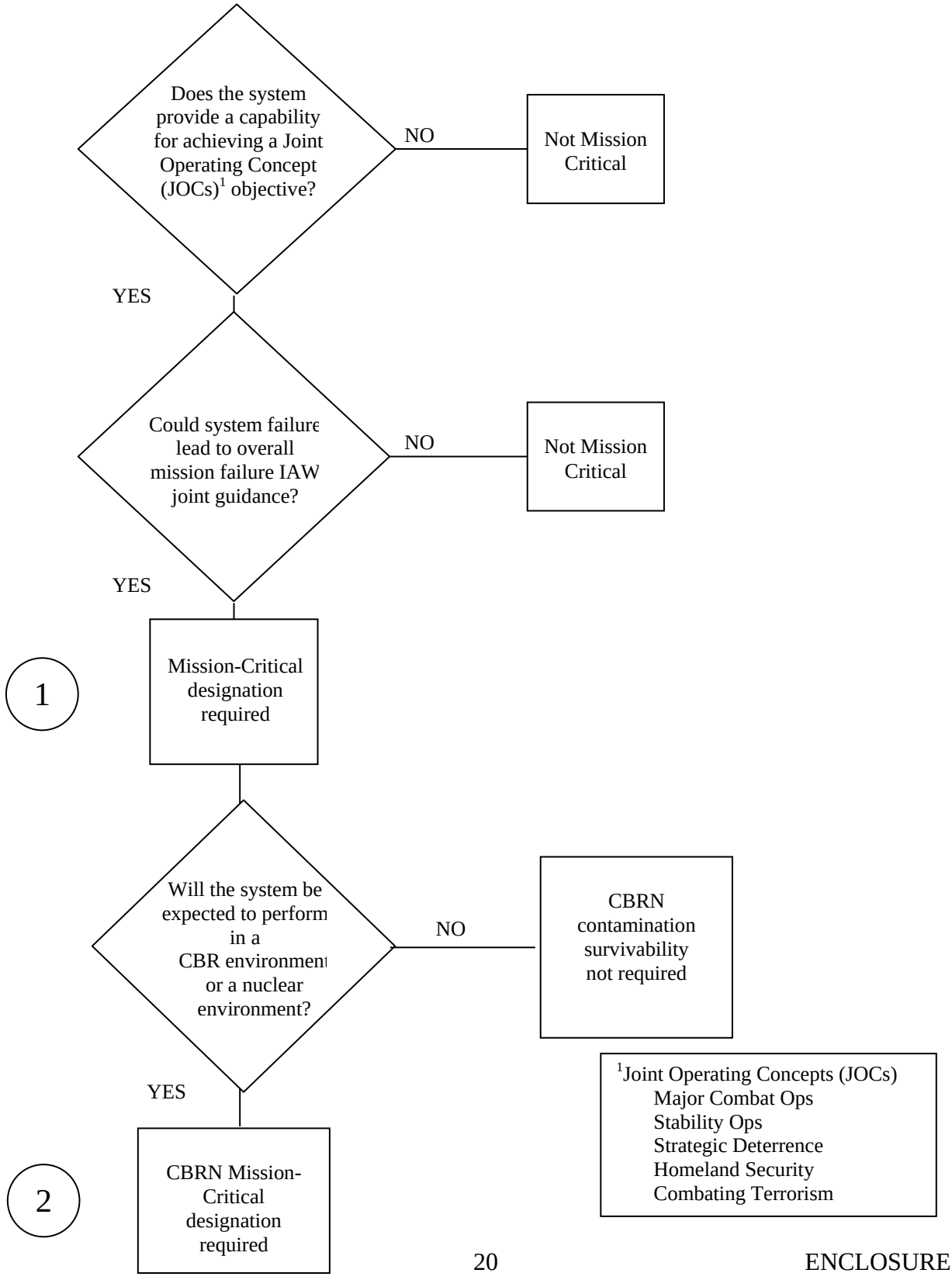
h. Department of State.

i. Federal Bureau of Investigation.

j. Central Intelligence Agency.

ENCLOSURE 5

REPRESENTATIVE MISSION-CRITICAL AND CBRN MISSION-CRITICAL SURVIVABILITY DECISION TOOL



Change 1, 8/17/2009

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

ACAT	acquisition category
ASD(HD&ASA)	Assistant Secretary of Defense for Homeland Defense and America's Security Affairs
ASD(NII)/DoD CIO	Assistant Secretary of Defense Networks and Information Integration/DoD Chief Information Officer
ATSD(NCB)	Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs
CBDP	Chemical Biological Defense Program
CBR	chemical, biological, and radiological
CBRN	chemical, biological, radiological, and nuclear
CBRND	CBRN Defense
CDD	capability development document
CPD	capability production document
CSOG	CBRN Survivability Oversight Group
DATSD(CBD&CDP)	Deputy Assistant to the Secretary of Defense for Chemical Biological Defense and Chemical Demilitarization Programs
DATSD(NM)	Deputy Assistant to the Secretary of Defense for Nuclear Matters
DCAPE	*Director of Cost Assessment and Program Evaluation*
DCIP	Defense Critical Infrastructure Program
DDR&E	Director of Defense Research and Engineering
DIA	Director, Defense Intelligence Agency
DISA	Director, Defense Information Systems Agency
~~DPA&E~~	~~Director of Program Analysis and Evaluation~~
DMDA	Director, Missile Defense Agency
DoD	Department of Defense
DoDD	Department of Defense Directive
DOT&E	Director of Operational Test and Evaluation
DTRA	Defense Threat Reduction Agency
EMP	electromagnetic pulse
FCB	Functional Capabilities Board
GIG	Global Information Grid
HM/HS	hardness maintenance and hardness surveillance

IAW	in accordance with
ICD	initial capabilities document
JCIDS	Joint Capabilities Integration and Development System
JROC	Joint Requirements Oversight Council
KPP	key performance parameters
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Programs
NC2	nuclear command and control
POC	point of contact
PSA	principal staff assistant
RDT&E	research, development, test and evaluation
RCS	Report Control Symbol
STANAG	standardization agreement (NATO)
T&E	test and evaluation
TTP	tactics, techniques, and procedures
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
USD((C)/CFO)	Under Secretary of Defense (Comptroller)/DoD Chief Financial Officer
USD(I)	Under Secretary of Defense for Intelligence
USD(P)	Under Secretary of Defense for Policy
USD(P&R)	Under Secretary of Defense for Personnel and Readiness
USJFCOM	United States Joint Forces Command

PART II. DEFINITIONS

Unless otherwise noted, these terms and their definitions are for the purpose of this Instruction only.

airblast. The crushing and pushing winds that occur within the first minute after a low-altitude nuclear burst.

CBR contamination survivability. The capability of a system to withstand chemical, biological, or radiological contaminated environments, decontaminants, and decontamination processes, without losing the ability to accomplish the assigned mission. A CBR contaminated survivable system is hardened against chemical or biological agent(s) or radiological contamination and decontaminants. It can be decontaminated, and is compatible with individual protective

equipment. CBR contamination survivability may be accomplished by hardening, timely re-supply, redundancy, mitigation techniques (including operational techniques), or a combination thereof. The three elements of CBR contamination survivability are CBR hardness, CBR compatibility, and CBR decontaminability.

CBR compatibility. The capability of a system to be operated, maintained, and re-supplied by persons wearing a full complement of individual protective equipment, in all climates for which the system is designed and for the period specified in the Capability Development Document (CDD) or the Capability Production Document (CPD).

CBR environment. The environment created by chemical, biological, or radiological contamination.

CBR hardness. The capability of materiel to withstand the materiel-damaging effects of CBR contamination and relevant decontaminations.

CBR decontaminability. The ability of a system to be rapidly and effectively decontaminated to reduce the hazard to personnel operating, maintaining, and re-supplying it.

CBR decontamination. The process of making materiel safe by absorbing, destroying, neutralizing, rendering harmless, or removing chemical or biological agents and radiological contamination. This definition is for reference only; CBR decontamination is not one of the three elements of CBR contamination survivability.

CBRN mission critical. That subset of mission-critical systems with operational concepts requiring employment and survivability in a CBR environment or a nuclear environment.

CBRN survivability. The capability of a system to avoid, withstand, or operate during and/or after exposure to a CBR environment (and relevant decontamination) or a nuclear environment, without losing the ability to accomplish the assigned mission. CBRN survivability is divided into CBR survivability, which is concerned with CBR contamination including fallout, and nuclear survivability, which covers initial nuclear weapon effects, including blast, EMP and other initial radiation and shockwave effects.

combat developer. Command or agency that formulates doctrine, concepts, organization, materiel requirements, and objectives. May be used generically to represent the user community role in the materiel acquisition process. (Army and Marine Corps)

defense-critical system. A defense-critical system is a mission-critical system.

EMP. The electromagnetic radiation from a nuclear explosion caused by Compton-recoil electrons and photoelectrons from photons scattered in the materials of the nuclear device or in a surrounding medium. The resulting electric and magnetic fields may couple with electrical/electronic systems to produce damaging current and voltage surges.

ground shock. The shock wave produced in the ground after a sub-surface, surface, or near-surface nuclear burst.

initial nuclear radiation. The neutron, gamma, and x-ray radiation occurring immediately following a nuclear burst.

materiel developer. The organization responsible for research, development, and acquisition of materiel systems in response to capabilities documents.

mission-critical system. A system whose operational effectiveness and operational suitability are essential to successful mission completion or to aggregate residual combat capability. If this system fails, the mission likely will not be completed. Such a system can be an auxiliary or supporting system, as well as a primary mission system.

NC2 System. The combination of facilities, equipment, communications, procedures, and personnel essential for planning, directing, and controlling nuclear weapons, weapons systems, and associated operations.

nuclear environment. The environment created by initial nuclear weapon effects (air blast, thermal radiation, initial nuclear radiation, and EMP).

nuclear hardening. The employment of any design or manufacturing technique applied to an item/system that allows it to resist malfunction (temporary or permanent) and/or degraded performance induced by nuclear weapon effects. Such systems are considered to be nuclear hardened.

nuclear survivability. The capability of a system to withstand exposure to a nuclear environment without suffering loss of ability to accomplish its designated mission throughout its life-cycle. Nuclear survivability may be accomplished by hardening, timely re-supply, redundancy, mitigation techniques (including operational techniques), or a combination thereof.

sponsor. See Reference (f).

thermal radiation. The flash of heat from a nuclear weapon that weakens structures before the arrival of the airblast.

underwater shock. The shock wave produced in water after an underwater or sub-surface nuclear burst.