



# CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION

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J-8  
DISTRIBUTION: A, C, JS-LAN, S

CJCSI 3112.01A  
9 February 2010

## JOINT BIOLOGICAL WARFARE DEFENSE CAPABILITIES

References: See Enclosure D.

1. Purpose. This instruction provides military guidance for planning and integrating joint biological warfare defense capabilities.
2. Cancellation. CJCSI 3112.01, 22 May 2006, is hereby canceled.
3. Applicability. Consistent with the applicable guidance of the Secretary of Defense, this instruction applies to the Military Departments/Services, the combatant commands, Department of Defense agencies, and the Joint Staff.
4. Policy. It is Department of Defense (DOD) policy that the Department of Defense shall be in full compliance with the provisions of the Biological and Toxin Weapons Convention, reference a, to which the United States is a party. The Secretary of Defense carries out these responsibilities through a coordinated U.S. Chemical and Biological Defense Program (CBDP) to meet, within the constraints of resources available, the highest priority requirements of the Joint Force for biological warfare defense in accordance with references b and c.
5. Definitions. See Glossary.
6. Responsibilities. See Enclosure B.
7. Summary of Changes. Key changes are as follows:
  - a. CJCSI 3112.01, 22 May 2006, Enclosure A, "Joint Strategy for Biological Warfare Defense," removed; updated with CJCSI 3112.01A, Enclosure A, "Joint Biological Warfare Defense Capabilities."

b. CJCSI 3112.01, 22 May 2006, Enclosure B, "Near-Term Implementation," removed; replaced with CJCSI 3112.01A, Enclosure B, "Responsibilities."

c. CJCSI 3112.01, 22 May 2006, Enclosure C, "Responsibilities," removed; replaced with CJCSI 3112.01A, Enclosure C, "Capabilities Integration."

d. CJCSI 3112.01, 22 May 2006, Enclosure D, "Biological Agent Effect and Prophylaxis Timelines," removed; replaced with CJCSI 3112.01A, Enclosure D, "References."

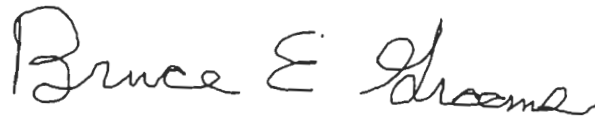
e. CJCSI 3112.01, 22 May 2006, Enclosure E, "Technical Description of Biological Agents," removed.

f. CJCSI 3112.01, 22 May 2006, Enclosure F, "References," removed.

8. Releasability. This instruction is approved for public release; distribution is unlimited. DOD components (to include the combatant commands), other federal agencies, and the public may obtain copies of this instruction through the Internet from the CJCS Directives Home Page--[http://www.dtic.mil/cjcs\\_directives](http://www.dtic.mil/cjcs_directives).

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

For the Chairman of the Joint Chiefs of Staff:



B. E. GROOMS  
RADM, USN  
Vice Director, Joint Staff

Enclosures:

- A -- Joint Biological Warfare Defense Capabilities
- B -- Responsibilities
- C -- Capabilities Integration
- D -- References
- GL -- Glossary

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## ENCLOSURE A

### JOINT BIOLOGICAL WARFARE DEFENSE CAPABILITIES

1. Purpose. A demonstrated military capability to defend against biological weapons strengthens our forward military presence in regions vital to U.S. security, promotes deterrence, and provides reassurance to our critical friends and allies. This instruction provides broad guidance describing how DOD agencies, unified combatant commands, and Services should plan, integrate, provide, and sustain biological warfare defense in support of the Joint Force. This guidance supports the “National Military Strategy to Combat Weapons of Mass Destruction,” reference d.

#### 2. Biological Warfare Threat

a. Biological agents are pathogens or toxins capable of causing disease in humans, animals, and agriculture. Pathogens are microorganisms (e.g., bacteria, viruses, or rickettsia) that directly attack human, plant, or animal tissue and affect their biological processes. Toxins are poisonous substances that are produced naturally (by bacteria, plants, fungi, snakes, insects, and other living organisms) or synthetically. Biological agents pose a threat due to factors that include the following: small doses of biological agents can produce lethal or incapacitating effects over an extensive area; they are difficult to detect in a timely manner; they are easy to conceal; they can be covertly deployed; and the variety of potential biological agents significantly complicates effective preventative or protective treatment. These factors, combined with often ambiguous employment signatures, delayed onset of symptoms, difficulties with detection, identification and verification, persistence, and communicability of some agents, can confer important advantages to adversaries who use biological agents.

b. Use of biological warfare by the adversary presents asymmetric challenges to the joint force commander. These challenges are low in probability, yet they have high consequence. Intelligence sources have identified numerous countries having active or presumed biological warfare programs. Although several of these countries are signatories to conventions banning biological warfare, some continue to develop, test, and evaluate biological warfare agents and the means to disseminate them. The spread of these weapons (and the industrial capability for manufacture) to developing nations and transnational terrorist organizations, coupled with the potential for U.S. involvement in these areas in an operational or support capacity, increases the probability that Joint Forces may encounter biological hazards.

c. National bio-threat priorities include understanding and mitigating deleterious effects of emerging infectious diseases, pandemic influenza, genetically engineered pathogens, and biological warfare agents. In order to strengthen Joint Force efforts in countering biological threats, the CBDP will include emerging infectious diseases into the biodefense mission set, as directed in reference e. Joint Force capabilities for biosurveillance, pathogen characterization, and rapid response for medical countermeasures (including diagnostics, therapeutics, and prophylaxis) will complement and supplement emerging infectious disease preparedness and response. Pandemic influenza illustrates the wide-ranging impacts infectious disease can cause. Crisis management elements will be established as required to maintain operational oversight of such threats.

d. The “National Strategy for Countering Biological Threats,” reference f, recognizes that a comprehensive and integrated approach is needed to prevent the full spectrum of biological threats, as actions will vary in effectiveness against specific threats. This instruction supports the national strategy by providing guidance to the Joint Force for development and integration of biological warfare defense capabilities. These capabilities, integrated with the resources of interagency partners, are part of a suite of coordinated activities that collectively will reduce the risk of biological threats.

e. This threat is based on the Defense Intelligence Agency (DIA) assessment contained in reference g. Current versions shall be used for Joint Force planning.

### 3. Joint Biological Warfare Defense Activities

a. To enhance biological defense, key efforts include detecting biological weapons attacks, understanding effects of biological agents within the operating environment, protecting personnel, and effectively rendering biologically contaminated material safe. Enhancing international partnerships; creating new drugs, vaccines, and diagnostic tests; and enabling research, development, and manufacture of effective biological warfare defense capabilities are fundamental to improved defense. Strong response and recovery capabilities from a biological warfare attack against the Joint Force are also critical. Integration of existing biological warfare defense capabilities and development of new capabilities against emerging infectious disease strengthens the Department’s efforts in countering biological warfare.

b. The Joint Global Warning Enterprise (JGWE), activated on 1 January 2009 (reference h), provides an inclusive, visible, and unified means to provide information to policy makers, planners and operators to assist in shaping strategic outcomes. The JGWE supports combating weapons of mass destruction (WMD) and counter-proliferation issues by leveraging WMD subject-matter experts through regional strategic country communities of interest and

as a panel member of the intelligence community's WMD Threat Working Group. Additionally, the JGWE provides WMD strategic warning to address risk factors and counter-proliferation issues.

c. In 2008, the Department of Defense and Department of Homeland Security (DHS) signed a memorandum of agreement, reference i, to collaboratively research and develop chemical and biological defense equipment. The Department of Defense and DHS cooperate on chemical and biological initiatives to maximize complementary research, development, test, and evaluation (RDT&E) and acquisition efforts and to minimize duplicative efforts and enhance technical cooperation. The Department of Defense encourages efforts to exchange information and identify program and project needs, requirements, and overlapping interests in biological warfare defense. The Department of Defense conducts research and provides data, reports, and other documents in collaboration with DHS to improve national defense capabilities against biological warfare attacks within the constraints of the memorandum of agreement. Continued science and technology enhancements with DHS; additional government partners including the Department of Health and Human Services, the Department of Energy, and the Department of State; and other public and private organizations are essential.

d. Department of Defense Directive (DODD) 5160.05E, reference b, assigned organizational roles and responsibilities within the CBDP. The CBDP develops and acquires a family of interoperable chemical, biological, radiological, and nuclear (CBRN) defense capabilities that protect the Joint Force and enable the military to operate successfully in chemically, biologically, and radiologically contaminated environments. As such, the CBDP is responsible for improving and integrating joint biological warfare defense capabilities. The J-8 Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense (JRO-CBRND), as a Chairman's controlled activity, executes Joint Staff responsibilities within the CBDP.

(1) To carry out assigned responsibilities and enhance joint biological defense capabilities, the JRO-CBRND:

(a) Leads development of the CBDP program objective memorandum (POM).

(b) Chairs the Combating Weapons of Mass Destruction (CWMD) Working Group to address CWMD issues within the Joint Capabilities Integration and Development (JCIDS) process for the Joint Force (reference j). The CWMD Work Group supports the Protection Functional Capabilities Board (FCB), reference k.

(c) Leads Integrated Concept Teams to develop material and non-material warfighter capabilities documents.

(d) Directs the Joint Combat Developer for Experimentation (JCDE) for CBRN Defense. The JCDE-CBRND coordinates and oversees execution of Joint and multi-Service experiments to validate joint concepts for CBRN defense.

(e) In coordination with the Deputy Under Secretary of the Army, Test and Evaluation (DUSA-TE), provides oversight to the Joint Threat Support Branch for Chemical and Biological Defense to provide system threat assessments for joint CBRN defense equipment and develop Joint Threat Test Support Packages for programs within the CBDP.

(2) The JRO-CBRND works in cooperation with the Joint Science and Technology Office for Chemical and Biological Defense (JSTO-CBD), the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD), DUSA-TE, and the Office of the Secretary of Defense Program Analysis and Integration Office (PAIO) CBRN Defense.

(a) JSTO-CBD manages DOD CBDP science and technology efforts, CBDP advanced technology demonstrations, and joint capability technology demonstrations as assigned by the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)).

(b) JPEO-CBD is the Joint Service Materiel Developer and oversees total life-cycle acquisition management for assigned CBRND programs.

(c) DUSA-TE oversees test and evaluation (T&E) infrastructure, policy, and planning for CBRND programs, and approves T&E Strategies (TES), Test and Evaluation Master Plans (TEMPs), and test plans for OSD T&E Oversight programs. DUSA-TE advises senior leadership regarding operational relevance of testing, threat portrayal, requirements, and program planning; and designates a Lead Operational Test Agency to execute T&E events.

(d) PAIO CBRN Defense provides independent analysis, review, and integration of CBDP function and supports development of the CBDP POM.



ENCLOSURE B  
RESPONSIBILITIES

1. Director for Intelligence (J-2)

a. In consultation with the commanders of the combatant commands, the Secretaries of the Military Departments, and the Director, DIA, validates and prioritizes biological warfare threats.

b. Collaborates with appropriate Joint Staff elements on biological warfare defense operational readiness, risk assessment, and policy issues.

c. Assesses the overall effectiveness of the Department's intelligence collection efforts dedicated to detecting the development or use of biological weapons by state, non-state, or rogue actors. Develops recommendations and a coordinated action plan to close the gaps identified.

2. Director for Operations (J-3)

a. Serves as the Chairman of the Joint Chiefs of Staff's office of primary responsibility for biological warfare defense operations and planning.

b. Collaborates with appropriate Joint Staff elements on biological warfare defense operational readiness, risk assessment, logistics and sustainment, and policy issues.

3. Director for Logistics (J-4). Collaborates with appropriate Joint Staff elements on biological warfare defense operational readiness, risk assessment, logistics and sustainment, and policy issues.

4. Director for Strategic Plans and Policy (J-5)

a. Develops, coordinates, and issues detailed military strategy for biological warfare defense and combating WMD.

b. Collaborates with appropriate Joint Staff elements on biological warfare defense operational readiness, risk assessment, logistics and sustainment, and policy issues.

5. Director for Operational Plans and Joint Force Development (J-7)

a. Supports and facilitates the development of multi-Service and joint biological warfare doctrine, tactics, techniques, and procedures; training and leader development and education; and exercises.

b. Collaborates with appropriate Joint Staff elements on biological warfare defense operational readiness, risk assessment, logistics and sustainment, and policy issues.

6. Director for Force Structure, Resources, and Assessment Directorate (J-8)

a. Advises the Chairman in identifying, assessing, and prioritizing joint biological warfare defense military capability needs.

b. Plans, coordinates, and approves joint biological warfare defense operational requirements (medical and non-medical), and joint operational concepts and architecture for passive defense, consequence management, foreign consequence management, force protection, and homeland security through the FCB process for JCIDS and non-JCIDS activities.

c. Through the Director of the JRO-CBRND, serves as the Chairman of the Joint Chiefs of Staff's focal point for all biological warfare defense issues associated with CWMD missions.

d. Pursuant to Section 163 of reference l, supports the Chairman of the Joint Chiefs of Staff in advising and making recommendations to the Secretary of Defense regarding combatant commander biological warfare defense operational capabilities requirements.

e. Coordinates and integrates requirements and capability needs for all DOD biological warfare defense programs, ensuring that Military Service and combatant command capability needs are developed and approved in a prompt and efficient manner.

f. Develops and maintains appropriate biological warfare defense Joint Concepts and Architectures and integrates biological warfare defense capabilities in the Joint CBRND Modernization Plan (reference m).

g. Ensures integration of biological warfare defense capabilities in the CBDDP POM strategy according to reference n.

h. Maintains visibility of research, development, acquisition, and demonstration activities associated with the biological warfare defense activities of the Services, combatant commands, and relevant Defense agencies.

i. Collaborates with appropriate Joint Staff elements on biological warfare defense operational readiness, risk assessment, logistics and sustainment, and policy issues.

7. Joint Staff Surgeon (JSS). Serves as the Chairman of the Joint Chiefs of Staff's office of primary responsibility for health services for biological warfare defense.

8. Combatant Commanders (CCDRs)

a. All CCDRs. Coordinate biological warfare defense capabilities and emerging infectious disease preparedness and response activities in existing plans for assigned forces.

b. USSTRATCOM. Serves as primary CCDR for synchronizing DOD biological warfare defense within CWMD planning efforts and advocating for DOD biological warfare defense capabilities.

c. USSOCOM. Pursuant to reference 1, organizes, trains, equips, and otherwise prepares assigned forces for biological warfare defense in accordance with Service responsibilities below.

9. Services. Pursuant to reference 1, the Services shall:

a. Organize, train, equip, and otherwise prepare their respective forces for biological warfare defense.

b. Validate operational concepts and develop Military Service-sponsored biological warfare defense capabilities documentation consistent with the JCIDS process.

c. Support development of Military Service annexes to joint capability documents that address biological warfare defense as appropriate.

d. Provide Service laboratory capabilities to support biological defense research as required.

10. Army. Pursuant to references b, c, and l, the Army shall:

a. Serve as the DOD Executive Agent for the CBDP.

b. Establish a JPEO-CBD, reporting through the Army Acquisition Executive to the Defense Acquisition Executive, to serve as the Joint Service Materiel Developer and oversee total life-cycle acquisition management for assigned CBRN defense programs.

c. Establish a JCDE for CBRND under the direction and supervision of the Director of the Joint Staff/J-8 JRO-CBRND.

11. Director, Defense Threat Reduction Agency (DTRA). Pursuant to reference b, 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. Establish a Joint Science and Technology Office for CBD to manage DOD CBDP Science and Technology (S&T) efforts in coordination with the Service laboratories, to include efforts with industry, academia, and other government agencies and laboratories.

b. Develop, coordinate, and transition CBDP S&T medical and physical sciences technologies and associated CBDP test and evaluation technologies in response to validated and approved joint military capability needs.

c. Preserve core scientific and technology capabilities within the Military Service laboratories that are necessary for conducting core CBDP RDT&E activities.

## ENCLOSURE C

### CAPABILITIES INTEGRATION

1. Implementation of the “National Military Strategy to Combat Weapons of Mass Destruction.” This guidance for capabilities integration is organized under four operational elements: Sense, Shape, Shield, and Sustain. These four operational elements are not listed in any priority; they may be executed simultaneously, sequentially, or individually to maintain mission capability. The integration and alignment of the four operational elements and CBRN defense capabilities to the eight combating WMD mission areas supports the implementation of a national military strategy for biological warfare defense by enabling development of an effective layered defense against biological weapons attacks.

a. Sense. Sense entails activities that provide CBRN threat and hazard information and intelligence to support the common operational picture. CBRN Sense is intended to continually provide critical information about potential or actual CBRN hazards in a timely manner through early detection, identification, and determination of the scope of hazards in all physical states, environmental areas (air, water, land), as well as on personnel, equipment, or in facilities. CBRN Sense is also key to contamination avoidance.

b. Shape. Shape is the command and control activity that integrates the Sense, Shield, and Sustain operational elements to characterize CBRN hazards and threats and employ necessary capabilities to counter their effects. This facilitates transformation of CBRN information and capabilities into situational awareness, which is essential for establishing viable active and passive defense measures. This allows the joint force commander to make informed use of CBRN information and defensive capabilities for future operations: to plan, conduct, and integrate CBRN defense with other defenses; to optimize the capability to operate in the CBRN environment; and to minimize negative psychological effects. For Joint biological warfare defense, Shape minimizes vulnerabilities to biological warfare agents by influencing U.S., allied, and opponent capabilities.

c. Shield. Shield consists of individual and collective protection measures essential to mitigate the effects of CBRN hazards. Protecting the force from CBRN hazards may include hardening systems and facilities, preventing or reducing individual and collective exposures, and applying medical prophylaxes. Additional considerations also may include designated nonmilitary personnel as defined and designated by strategic and national authorities.

d. Sustain. Sustain consists of the contamination mitigation, logistic, and medical activities to restore combat power and continue operations. Mitigation includes planning, initiating, and continuing operations despite threats from CBRN agents through the conduct of contamination control, and use of appropriate medical countermeasures that additionally enable the quick restoration of operational capability; maintaining and recovering essential functions and assets; and facilitating the return to pre-incident operational capability as soon as possible.

2. Applicability of Operational Elements. The Sense, Shape, Shield and Sustain operational elements are uniquely defined for CBRN defense capabilities. Each has specific applicability to provide guidance for Joint Force biological warfare defense.

ENCLOSURE D

REFERENCES

- a. Biological and Toxin Weapons Convention, "Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction." Signed 10 April 1972; enforced 26 March 1975.
- b. DODD 5160.05E, 9 October 2008, "Roles and Responsibilities Associated with the Chemical and Biological Defense (CBD) Program (CBDP)"
- c. USD(AT&L) memorandum, as amended through 1 October 2007, "Implementation Plan for the Management of the Chemical Biological Defense Program"
- d. Chairman of the Joint Chiefs of Staff, 13 February 2006, "The National Military Strategy to Combat Weapons of Mass Destruction"
- e. Assistant to the Secretary of Defense for Nuclear, Biological, and Chemical Defense Programs memorandum, 26 October 2009, "Including Emerging Infectious Disease into the Biodefense Mission Set"
- f. National Security Council, November 2009, "National Strategy for Countering Biological Threats"
- g. Defense Intelligence Agency, October 2009, "Chemical, Biological, Radiological, and Nuclear Warfare Capstone Threat Assessment"
- h. Chairman of the Joint Chiefs of Staff, 15 January 2009, "Activation of the Joint Global Warning Enterprise"
- i. "Memorandum of Understanding (MOU) between the Department of Defense (DoD) and the Department of Homeland Security (DHS) on Areas of Cooperation in Chemical-Biological (CB) Defense", 12 December 2008
- j. CJCSI 3170.01 Series, "Joint Capabilities Integration and Development System"
- k. CJCSI 3137.01 Series, "The Functional Capabilities Board Process"
- l. Title 10, United States Code, sections 113, 125, 133, 142, 163, and 167

m. Joint Requirements Office for CBRN Defense, 2008, “Joint Service Chemical, Biological, Radiological, and Nuclear (CBRN) Defense Modernization Plan”

n. Joint Staff memorandum, J-8A 00058-08, 19 February 2008, “Chemical Biological Defense Program (CBDP) Fiscal Year 2010-2015 (FY10-15) Program Objective Memorandum (POM) Preparation Instructions”



## GLOSSARY

### PART I -- ACRONYMS

CBDP	Chemical and Biological Defense Program
CBRN	chemical, biological, radiological, and nuclear
CBRND	chemical, biological, radiological, nuclear defense
CWMD	Combat Weapons of Mass Destruction
CCDR	combatant commander
DHS	Department of Homeland Security
DOD	Department of Defense
DODD	Department of Defense Directive
DTRA	Defense Threat Reduction Agency
DUSA-TE	Deputy Under Secretary of the Army, Test and Evaluation
FCB	Functional Capabilities Board
JCDE	Joint Combat Developer for Experimentation
JCIDS	Joint Capabilities Integration and Development System
JGWE	Joint Global Warning Enterprise
JPEO-CBD	Joint Program Executive Office for Chemical and Biological Defense
JRO-CBRND	Joint Requirements Office for Chemical Biological Radiological and Nuclear Defense
JSTO-CBD	Joint Science and Technology Office for Chemical and Biological Defense
PAIO	Program Analysis and Integration Office
POM	program objective memorandum
RDT&E	Research, development, test, and evaluation
S&T	Science and technology
USD(AT&L)	Under Secretary of Defense for Acquisition, Technolog, and Logistics
WMD	weapons of mass destruction

## GLOSSARY

### PART II -- DEFINITIONS

Active defense. The employment of limited offensive action and counterattacks to deny a contested area or position to the enemy.

Collective protection. The protection provided to a group of individuals that permits relaxation of individual chemical, biological, radiological, and nuclear protection.

Consequence management. Actions taken to maintain or restore essential services and manage and mitigate problems resulting from disasters and catastrophes, including natural, manmade, or terrorist incidents.

Contamination avoidance. Individual and/or unit measures taken to reduce the effects of CBRN hazards.

Contamination mitigation. The planning and actions taken to respond to and recover from CBRN or toxic industrial material contamination in order to continue military operations or assist U.S. civil authorities, allies, and partners or civilians in a hazardous contamination environment.

Detection. A generic detection component that analyzes particle contents to determine if they are biological in origin, indicating a higher probability of introduction of BW agents. This function may also classify the suspect particle by broad category (e.g., spore, bacterial cell, virus, toxin, macromolecule), or by presence of generic markers. CBRN detection is a form of measurement and signature intelligence.

Foreign consequence management. U.S. government activities to assist friends and allies in assessing and responding to a CBRN incident in order to mitigate human casualties and provide temporary associated essential services.

Identification. Identification is the specific identification of a biological warfare organism as to genus and species and/or specific toxin. Identification allows medical decision makers to refine post-attack treatment protocols, adds confidence to detection alarms and downwind hazard predictions previously made on the sensor data, and provides more input to command decision makers.

Individual protection. Measure that provides the joint force improved individual protection, allowing it to operate long-term, safely, and at near-normal levels of effectiveness while under CBRN threat, toxic industrial material, or other environmental hazard areas.

Passive defense. Measures taken to reduce the probability of and minimize the effects of damage caused by hostile action without the intention of taking the initiative.

Surveillance. The systematic observation of aerospace, surface, or subsurface areas, places, persons, or things by visual, aural, electronic, photographic, or other means.

Weapon of mass destruction (WMD). Weapons that are capable of a high order of destruction and/or of being used in such a manner as to destroy large numbers of people. WMD can be high-yield explosives or nuclear, biological, chemical, or radiological weapons but exclude the means of transporting or propelling the weapon where such means is a separable and divisible part of the weapon.

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