



DoD DIRECTIVE 4715.21

IMPROVING MILITARY INSTALLATION AND CRITICAL RESOURCES RESILIENCE

Originating Component: Office of the Under Secretary of Defense for Acquisition and Sustainment

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Purpose: In accordance with the statutory authority in Title 10, United States Code (U.S.C.) and DoD Directive (DoDD) 5135.02, this issuance establishes policy and assigns responsibilities to provide the DoD with the resources necessary to identify, assess, manage, and improve military installation and critical resources resilience. This includes mitigating risks from energy and water disruptions, extreme weather, and other disruptions to transportation or logistical resources essential to mission assurance and readiness. This involves deliberate preparation, close cooperation, and coordinated planning by the DoD to provide for the continuity of DoD operations, services, and programs.

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY. This issuance applies to:

a. OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Staff, the Combatant Commands, the Office of Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this issuance as the “DoD Components”).

b. All DoD operations worldwide unless superseded by international agreement.

1.2. POLICY. The DoD must be able to adapt current and future operations to proactively address the impacts to military installations and critical resources resilience in order to maintain an effective and efficient U.S. military. Mission planning and execution must include:

a. Identification, assessment, and monitoring of the effects of risks from energy and water disruptions, extreme weather, and other disruptions to transportation or logistical resources essential to mission assurance and readiness (i.e., “critical resources”) on the DoD mission.

b. Taking those effects into consideration when developing plans and implementing procedures.

c. Anticipating and managing any risks to improve military installation and critical resources resilience.

1.3. SUMMARY OF CHANGE 3. This change is administrative. It corrects authoritative citations to include Title 10, U.S.C., updates references, and updates terminology consistent with the March 17, 2025 Secretary of Defense Memorandum.

SECTION 2: RESPONSIBILITIES

2.1. USD(A&S). In coordination with the Under Secretary of Defense for Policy (USD(P)), the USD(A&S):

- a. Develops and oversees the implementation of DoD policy on military installation and critical resources resilience.
- b. Establishes DoD military installation resilience-related boards, councils, and working groups to integrate considerations into DoD programs, plans, and policies, when necessary.
- c. In coordination with the Director of Administration and Management, establishes efficient cost, schedule, performance, and strategic efficiencies, and establishes reporting metrics across the DoD through alignment to DoD strategic planning and performance management.
- d. Ensures DoD modeling and simulation efforts in support of military installation and critical resources resilience are conducted in accordance with the responsibilities assigned in DoDD 5000.59.

2.2. ASSISTANT SECRETARY OF DEFENSE FOR ENERGY, INSTALLATIONS, AND ENVIRONMENT (ASD(EI&E)). Under the authority, direction, and control of the USD(A&S), the ASD(EI&E):

- a. Serves as the DoD's primary military installation and critical resources resilience official.
- b. Develops DoD military installation and critical resources resilience policies, technical guidance programs, and budgets.
- c. Collaborates as needed with the USD(P), the Under Secretary of Defense for Personnel and Readiness, and the CJCS to account for risks from extreme weather and critical resource disruptions during planning processes across the spectrum of military operations.
- d. Collaborates with DoD issuance Principal Staff Assistants to integrate these considerations in appropriate existing policies, procedures, and programs as part of their regular revision process.
- e. Oversees DoD military installation and critical resources resilience research, development, testing, and evaluation programs in coordination with the Assistant Secretary of Defense for Science and Technology (ASD(S&T)). Collaborates with the Military Departments and other Federal agencies on related research and its applications to produce actionable information to reduce these risks.
- f. Collaborates with DoD Components and other Federal agencies to support efforts by the private sector, and other professional and governmental organizations, to identify, develop, and demonstrate technologies, engineering standards, tools, and approaches that enable military installation and critical resources resilience.

g. Provides guidance and direction on relevant technologies, engineering standards, tools, scenario development and use, and other approaches to enable prudent military installation and critical resources resilience, including the Unified Facilities Criteria Program, in accordance with DoD Instruction (DoDI) 4120.24.

h. Promotes, as an advisor to the Defense Acquisition Board and other key acquisition bodies, integrating these risk reduction considerations into programs under his or her purview.

i. Oversees identification and management of these military installation risks in coordination with other DoD risk management and readiness programs.

j. Considers military installation and critical resources resilience in the installation planning and basing processes to include impacts on built and natural infrastructure.

k. Engages with State and local governments to promote compatible development that improves military installation and critical resources resilience through the Office of Local Defense Community Cooperation programs or the Joint Land Use Study Program in accordance with DoDI 3030.03.

l. Leverages the Strategic Environmental Research and Development Program, a joint effort between the DoD, Department of Energy, and Environmental Protection Agency, to develop and implement military installation and critical resources resilience assessment and planning tools.

2.3. ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT. Under the authority, direction, and control of the USD(A&S), the Assistant Secretary of Defense for Sustainment:

a. Identifies and considers the risks to military installation and critical resources resilience that affect logistics infrastructure, materiel acquisition and supply (including critical suppliers and critical components), key transportation modes and routes, and storage and stockpile activities.

b. Takes appropriate actions to manage the risks identified in Paragraph 2.3.a.

c. Integrates consideration of these impacts into existing policies under his or her cognizance.

2.4. ASSISTANT SECRETARY OF DEFENSE FOR ACQUISITION. Under the authority, direction, and control of the USD(A&S), the Assistant Secretary of Defense for Acquisition:

a. In accordance with DoDD 5000.01 and DoDI 5000.02:

(1) Oversees integration of military installation and critical resources resilience considerations, including life cycle analyses, into acquiring or modifying weapons systems, platforms, equipment, and products.

(2) Develops or updates policies to integrate these considerations into mission area analyses and acquisition strategies across the life cycle of weapons systems, platforms, and equipment.

(3) Oversees integration of military installation and critical resources resilience-related policy and practices in defense acquisition workforce training and education.

b. Supports the CJCS in integrating these considerations into interactions between the Joint Capabilities Integration and Development System and Defense Acquisition System processes in accordance with CJCS Instruction 5123.01.

2.5. ASD(S&T). Under the authority, direction, and control of the Under Secretary of Defense for Research and Engineering, the ASD(S&T):

a. In coordination with the ASD(EI&E):

(1) Oversees defense-related research in military installation and critical resources resilience for the development of approaches and technologies that reduce risk and promote mission execution.

(2) Provides guidance and direction on relevant technologies and technological approaches to comply with policy and legal requirements and lessen these effects on operational mission needs.

b. Oversees DoD engagement with the U.S. Global Change Research Program through the National Science and Technology Council's committee structure in accordance with Executive Order 12881.

2.6. DIRECTOR, DEPARTMENT OF DEFENSE TEST RESOURCE MANAGEMENT CENTER. Under the authority, direction, and control of the Under Secretary of Defense for Research and Engineering, the Director, Department of Defense Test Resource Management Center:

a. Oversees integration of military installation and critical resources resilience considerations into DoD testing range sustainment policy objectives established in DoDD 3200.15.

b. Oversees DoD assessment of impacts to testing capabilities resulting from these risks in accordance with the responsibilities assigned in DoDD 5105.71.

c. Identifies military installation and critical resources resilience risks that may impact testing range capabilities across the DoD, and oversees DoD Component implementation of strategies to sustain testing range capabilities.

d. In coordination with the DoD Component heads, collaborates with internal and external stakeholders to address common military installation and critical resources resilience challenges and opportunities, including regional planning efforts.

2.7. USD(P). In coordination with the USD(A&S), the USD(P), through the Assistant Secretary of Defense for Strategy, Plans, and Capabilities, develops policies, plans, programs, forces, and posture needed to implement the DoD strategy, including, as appropriate, actions to increase military installation and critical resources resilience.

2.8. ASSISTANT SECRETARY OF DEFENSE FOR HOMELAND DEFENSE AND HEMISPHERIC AFFAIRS (ASD(HD&HA)).

Under the authority, direction, and control of the USD(P), the ASD(HD&HA):

a. In coordination with the ASD(EI&E), integrates DoD military installation and critical resources resilience approaches for homeland defense activities including national preparedness, crisis management, defense mobilization in emergency situations, defense continuity programs, mission assurance, the Defense Support of Civil Authorities (DSCA), and continuity of operations and government, preserving freedom of navigation and other ASD(HD&HA) mission areas in accordance with DoDI S-2005.01.

b. Through the Office of the Deputy Assistant Secretary of Defense for Arctic and Global Resilience, integrates military installation and critical resources resilience considerations into all DoD strategies, plans, and processes; coordinates with the interagency on international military installation and critical resources resilience security; and works with allies and partners to support development of their resilience.

2.9. ASSISTANT SECRETARY OF DEFENSE FOR SPECIAL OPERATIONS AND LOW-INTENSITY CONFLICT. Under the authority, direction, and control of the USD(P), the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict:

a. Monitors and directs appropriate planning for anticipated humanitarian assistance and disaster relief (HA/DR) requests for DoD assistance, including stabilization support. These plans address extreme weather, and critical resources impacts such as increased demand and resources for HA/DR activities, and increased instability sparked by competition for limited natural resources.

b. Provides guidance and oversight to the Combatant Commanders (CCDRs) on on-going humanitarian assistance programs and resources to encourage partner nations' efforts for:

(1) Disaster risk reduction, mitigation, preparedness, and resilience.

(2) Building capacity for humanitarian assistance, global health engagement, and disaster prevention in light of extreme weather, and critical resources risks.

c. Incorporates extreme weather and critical resources risks into stability operations policy, doctrine, and planning, including their impacts on conflict and state fragility.

2.10. UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS. In coordination with the USD(A&S), the Under Secretary of Defense for Personnel and Readiness:

- a. Oversees integration of military installation and critical resources resilience considerations into DoD training range sustainment policy objectives established in DoDD 3200.15.
- b. Oversees DoD assessment of impacts to training capabilities resulting from extreme weather and critical resource disruptions.
- c. Identifies potential impacts to training ranges and training capabilities across DoD from extreme weather and critical resource disruptions, and oversees DoD Component implementation of strategies to sustain training range capabilities.
- d. Identifies, assesses, and plans for these impacts to the safety, health, and well-being of the DoD military and civilian workforce.
- e. In coordination with the DoD Component heads, supports the development of policy and guidance on relevant military education requirements needed to maintain operational readiness and military installation resilience, consistent with DoDD 5124.11 and Volume 1 of DoDI 1322.35.
- f. Supports the Military Services and the Joint Staff as they integrate military installation and critical resources resilience considerations into:
 - (1) DoD education and training programs.
 - (2) Joint training, exercise, and evaluation program events.
- h. Incorporates associated impacts into readiness reporting.

2.11. UNDER SECRETARY OF DEFENSE FOR INTELLIGENCE AND SECURITY. The Under Secretary of Defense for Intelligence and Security:

- a. Oversees planning, organizing, coordinating, and balancing of investment and risk for all DoD intelligence, surveillance, and reconnaissance capabilities related to extreme weather and critical resource disruptions, and consults with CCDRs, as appropriate.
- b. As the Director of Defense Intelligence and principal advisor to the Director of National Intelligence (DNI) and all other Intelligence Community elements on Defense Intelligence matters:
 - (1) Coordinates with the DNI to ensure effective, complementary, and mutual military installation and critical resources resilience related support between Defense Intelligence programs and the National Intelligence Program.

(2) Coordinates with the DNI on all other responsibilities and functions as related to risks, potential impacts, considerations, vulnerabilities, and effects of extreme weather and critical resource disruptions.

2.12. DIRECTOR OF ADMINISTRATION AND MANAGEMENT. The Director of Administration and Management coordinates with the USD(A&S) to establish cost, schedule, performance, and strategic efficiencies, and establishes reporting metrics across the DoD through alignment to DoD strategic planning and performance management.

2.13. GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE. The General Counsel of the Department of Defense:

- a. Provides authoritative legal advice and counsel to OSD organizations and, as appropriate, other DoD Components regarding military installation and critical resources resilience issues.
- b. Interprets and integrates statutory authority related to military installation and critical resources resilience, including Sections 101, 2285, 2391, 2815, 2815a, 2864, 2866, 2911, 2914, 2920, and 2925 of Title 10, U.S.C.
- c. Determines the DoD position on specific legal problems and matters of legal policy related to military installation and critical resources resilience.
- d. Responds to congressional, interagency, and intra-governmental requests for information related to military installation and critical resources resilience legal matters.

2.14. DoD COMPONENT HEADS. The DoD Component heads:

- a. Integrate military installation and critical resources resilience considerations into DoD Component policy, guidance, plans, and operations.
- b. Assess and manage risks from extreme weather and critical resource disruptions to built and natural infrastructure, including changes as appropriate to installation master planning, natural and cultural resource management, design and construction standards, asset management, encroachment management, utility systems, and emergency management operations.
- c. Assess, incorporate, and manage the risks and effects of extreme weather and critical resource disruptions on DoD Component capabilities and capacity, including force structure, basing, military operations, capacity building, stability operations, and demand for HA/DR and DSCA in short- and long-term plans.
- d. Assess and manage vulnerabilities associated with military installation and critical resources resilience to acquisition and supply, including the full life cycle of weapons systems, platforms, equipment, and products within the respective DoD Component's portfolio.

e. Assess and mitigate the effects of extreme weather and critical resource disruptions on the ability to carry out training and test activities in the field environment. Determine the total impacts on training and test activities across the DoD Component concerned, including supporting range complex planning.

f. Update health surveillance programs, including current health assessments, to address effects on personnel, including changes in extreme temperatures, precipitation patterns, and disease vector distribution.

g. Leverage authoritative environmental prediction sources for appropriate data and analysis products to assess extreme weather and critical resource disruption impacts.

h. Integrate resource considerations and cost management, including life-cycle costs, for military installation and critical resources resilience into plans, business processes, material management, and acquisition strategies, along with associated investment and risk management processes at all relevant levels within the Component concerned.

2.15. CJCS. In addition to the responsibilities in Paragraph 2.14., the CJCS:

a. Collaborates with allies and partners to optimize joint exercises and war games incorporating military installation and critical resources resilience considerations, including factors contributing to geopolitical and socioeconomic instability and long-term planning.

b. Continues efforts to incorporate geostrategic and operational energy and water considerations into force planning, requirements development, and acquisition processes.

2.16. CCDRS. In addition to the responsibilities in Paragraph 2.14., the CCDRs:

a. Incorporate military installation and critical resources resilience impacts into plans and operations and integrate DoD guidance and analysis in Combatant Command planning to address these risks and opportunities across the full range of military operations, including steady-state campaign planning and operations and contingency planning.

b. Assess these risks to U.S. security interests within their areas of responsibility and resulting risks to U.S. operations, and identify associated U.S. military capability gaps and operational risks.

c. Require country-specific cooperation and engagement including joint training and exercises that enhance partner capacity and improve joint force tactics, techniques, and procedures for addressing military installation and critical resources resilience impacts.

d. Monitor internal policy guidance provided to the other DoD Components for the preparation and review of program and budget submissions.

e. Review and refine capacity and capability requirements for HA/DR and DSCA for the respective assigned areas of responsibility.

GLOSSARY

G.1. ACRONYMS.

ASD(EI&E)	Assistant Secretary of Defense for Energy, Installations, and Environment
ASD(HD&HA)	Assistant Secretary of Defense for Homeland Defense and Hemispheric Affairs
ASD(S&T)	Assistant Secretary of Defense for Science and Technology
CCDR	Combatant Commander
CJCS	Chairman of the Joint Chiefs of Staff
DNI	Director of National Intelligence
DoDD	DoD directive
DoDI	DoD instruction
DSCA	Defense Support of Civil Authorities
HA/DR	humanitarian assistance and disaster relief
U.S.C.	United States Code
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment
USD(P)	Under Secretary of Defense for Policy

G.2. DEFINITIONS. These terms and their definitions are for the purposes of this issuance.

critical resources. Transportation or logistical resources essential to mission assurance and readiness (e.g., energy and water supply).

energy resilience. Defined in Section 101(f)(6) of Title 10, U.S.C.

extreme weather. Defined in Section 101(a)(20) of Title 10, U.S.C.

military installation. Defined in Section 2801(c)(4) of Title 10, U.S.C.

military installation resilience. Defined in Section 101(f)(8) of Title 10, U.S.C.

resilience. Ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.

water resilience. Defined in Section 2815a(g)(6) of Title 10, U.S.C.

REFERENCES

- Chairman of the Joint Chiefs of Staff Instruction 5123.01, “Charter of the Joint Requirements Oversight Council and Implementation of the Joint Capabilities Integration and Development System,” current edition
- DoD Directive 3200.15, “Sustaining Access to the Live Training and Test Domain,” December 18, 2013, as amended
- DoD Directive 5000.01, “The Defense Acquisition System,” September 9, 2020, as amended
- DoD Directive 5000.59, “DoD Modeling and Simulation (M&S) Management,” August 8, 2007, as amended
- DoD Directive 5105.71, “Department of Defense Test Resource Management Center (TRMC),” March 8, 2004
- DoD Directive 5124.11, “Assistant Secretary of Defense for Readiness (ASD(R)),” September 6, 2019
- DoD Directive 5135.02, “Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)),” July 15, 2020
- DoD Instruction 1322.35, Volume 1, “Military Education: Program Management and Administration,” April 26, 2022
- DoD Instruction S-2005.01, “(U) Freedom of Navigation (FON) Program,” October 20, 2014
- DoD Instruction 3030.03, “Joint Land Use Study (JLUS) Program,” July 13, 2004, as amended
- DoD Instruction 4120.24, “Defense Standardization Program,” March 31, 2022
- DoD Instruction 5000.02, “Operation of the Adaptive Acquisition Framework,” January 23, 2020, as amended
- Executive Order 12881, “Establishment of the National Science and Technology Council,” November 23, 1993, as amended
- Office of the Chairman of the Joint Chiefs of Staff, “DoD Dictionary of Military and Associated Terms,” current edition
- Secretary of Defense Memorandum, “Mission Focus of the Department of Defense,” March 17, 2025
- United States Code, Title 10