



DoD INSTRUCTION 4715.14

OPERATIONAL RANGE ASSESSMENTS

Originating Component:	Office of the Under Secretary of Defense for Acquisition and Sustainment
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Reissues and Cancels:	DoD Instruction 4715.14, "Operational Range Assessments," November 30, 2005
Incorporates and Cancels:	Under Secretary of Defense Memorandum, "Operational Range Assessments – Supplemental Guidance," December 18, 2007 Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health Memorandum, "DoD-Regulator Interactions for Operational Range Assessments," August 21, 2006
Approved by:	Ellen M. Lord, Under Secretary of Defense for Acquisition and Sustainment

Purpose: This issuance:

- Establishes policy, assigns responsibilities, and prescribes procedures to assess the potential human health and environmental impacts to off-range receptors from the use of military munitions on operational ranges in the United States in accordance with the authority in DoD Directives (DoDDs) 5134.01, 4715.1E, and 6055.09E, and the July 13, 2018 Deputy Secretary of Defense Memorandum.
- Augments the guidance in DoDD 3200.15 and the "Defense Planning/Programming Guidance" to sustain the use and management of operational ranges.

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY. This issuance:

a. Applies to:

(1) OSD, 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 DoD (referred to collectively in this issuance as the “DoD Components”).

(2) Operational ranges in the United States that are reported in a DoD Component’s operational range inventory in accordance with DoDD 3200.15.

b. Does not apply to:

(1) Operational ranges located outside the United States, including operational ranges used solely to support contingency operations.

(2) Indoor ranges.

1.2. POLICY. The DoD will:

a. Use and manage operational ranges to support national security objectives and maintain the high state of operational readiness essential to the DoD, in accordance with DoDD 3200.15.

b. Support the long-term sustainability of DoD operational ranges, in accordance with mission requirements, while protecting human health and the environment.

c. Consider on-range proactive management practices to prevent a release or substantial threat of a release of munitions constituents (MC) from an operational range to an off-range area.

d. Assess an operational range to determine if there is a release of MC from the range to an off-range area and whether the release creates a potential unacceptable risk to human health or the environment.

e. Address, as appropriate, a release or substantial threat of a release identified as a result of an operational range assessment.

f. To the extent possible, limit the potential for explosives hazards and mishaps, in accordance with DoDD 6055.09E.

g. Resolve any conflicts between explosives safety and environmental requirements with the primary objective of minimizing explosives hazards.

1.3. INFORMATION COLLECTIONS. The annual data call, referred to in Paragraph 3.4.a., has been assigned report control symbol DD-A&S(A,AR)2654 in accordance with the procedures in Volume 1 of DoD Manual (DoDM) 8910.01. The expiration date of this information collection is listed in the DoD Information Collections System at <https://apps.sp.pentagon.mil/sites/dodiic/Pages/default.aspx>.

SECTION 2: RESPONSIBILITIES

2.1. UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND SUSTAINMENT (USD(A&S)). The USD(A&S) has overall OSD responsibility for:

- a. Environmental policies, including environmental technology policies, and oversight related to implementing this issuance.
- b. Explosives safety risk management, including explosives safety on ranges, through the Executive Director of the Department of Defense Explosives Safety Board.

2.2. 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. Develops policy, guidance, strategies, and acquisition plans to implement this issuance.
- b. Oversees the DoD Components' efforts to conduct operational range assessments to support operational readiness, live-fire training requirements, and testing capability, including planning, programming, budgeting, and execution.
- c. Addresses technology requirements to enhance sustainable range management and safety, health, and environmental aspects related to this issuance through research, development, test, and evaluation programs.
- d. Coordinates joint Service range clearance technology requirements, and the transition of these requirements, into technology programs with the Unexploded Ordnance Center of Excellence.
- e. Resolves conflicts regarding test range access for conducting operational range assessments.
- f. Delegates authority related to implementing this issuance to the Deputy Assistant Secretary of Defense for Environment, Safety, and Occupational Health.

2.3. UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS. The Under Secretary of Defense for Personnel and Readiness:

- a. Coordinates with the USD(A&S) to support conducting operational range assessments based on live-fire training requirements to support operational readiness.
- b. Resolve conflicts regarding training range access for conducting operational range assessments.

2.4. UNDER SECRETARY OF DEFENSE (COMPTROLLER)/CHIEF FINANCIAL OFFICER, DEPARTMENT OF DEFENSE. In accordance with Volume 2B of DoD 7000.14-R, the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of Defense, provides financial management policy regarding operational range management activities, including:

- a. Conducting operational range assessments.
- b. Preventing or mitigating a release or substantial threat of a release of MC from an operational range to an off-range area.

2.5. DIRECTOR, OPERATIONAL TEST AND EVALUATION. The Director, Operational Test and Evaluation coordinates with the USD(A&S) to support conducting operational range assessments based on testing requirements to support operational testing and live fire testing activity.

2.6. DOD COMPONENT HEADS WITH REAL PROPERTY ACCOUNTABILITY FOR OPERATIONAL RANGES. Unless otherwise agreed in writing, the DoD Component heads with real property accountability for operational ranges:

- a. Plan, program, and budget to execute operational range assessments in accordance with OSD policies, procedures, and requirements.
- b. Monitor and oversee the execution and progress of operational range assessments.
- c. Establish and implement procedures to assess and manage the potential and actual environmental impacts of using military munitions (e.g., conducting live-fire training and testing) on operational ranges in accordance with applicable laws, regulations, and DoD policies and procedures. These procedures must include guidance for conducting operational range assessments in accordance with Paragraph 3.1.
- d. Conduct operational range assessments in accordance with Paragraph 3.2.
- e. Address a release or substantial threat of a release from an operational range to an off-range area in accordance with Paragraph 3.3.
- f. Conduct internal and external reporting, in accordance with Paragraph 3.4.
- g. Retain operational range assessment findings and supporting documentation in accordance with the records management policies in Section 3 of DoD Instruction (DoDI) 5015.02 and their respective DoD Component records management directives.
- h. Comply with applicable DoD explosives safety requirements, in accordance with DoDD 6055.09E, DoDIs 4140.62 and 6055.07, and DoDM 6055.09, when implementing this issuance, including:

- (1) Restricting access to operational ranges.
- (2) Managing potential explosives safety risks associated with military munitions.
- i. Engage with the public, as appropriate, regarding operational range activities and:
 - (1) Participate in established national public-involvement programs, including dialogues with interested members of the public, to discuss and explain the potential environmental hazards associated with operational ranges.
 - (2) Address operational-range related issues that affect, or may affect, surrounding communities (e.g., controlled burns, access controls, and institutional controls) in appropriate local public participation forums.
- j. Require third parties that use or operate a DoD Component's operational range to comply with this issuance, as applicable, and document the third-party requirements.
- k. Facilitate range access for authorized personnel to conduct operational range assessments.

SECTION 3: PROCEDURES

3.1. OPERATIONAL RANGE ASSESSMENT GUIDANCE. The DoD Component develops and maintains guidance for conducting operational range assessments and updates this guidance as required when there are changes in applicable federal laws, regulations, DoD policies and procedures, or other requirements (e.g., changes in range and weapons use). At a minimum, this guidance:

- a. Identifies the required operational ranges the DoD Component will assess.
- b. Lists the MC, based on readily available records, contained in military munitions used or being used on the operational ranges covered by the guidance.
- c. Discusses the methodologies and procedures the DoD Component uses to:
 - (1) Identify source areas, pathways, and receptors.
 - (2) Determine if there is a release or substantial threat of a release of MC from an operational range to an off-range area.
 - (3) Determine if the release of MC from an operational range to an off-range area exceeds an applicable regulatory reporting standard. These regulatory reporting standards can be based on federal, State, or local requirements and will vary by location.
 - (4) Determine whether the release or substantial threat of a release of MC from an operational range to an off-range area creates a potential unacceptable risk to human health or the environment.
 - (5) Communicate internally and externally to distribute information within DoD and with the appropriate federal agencies; State, Indian tribal, and local governments; Native Hawaiian Organizations; and the public in accordance with Paragraphs 3.3. and 3.4 of this issuance.
 - (6) Develop assessment recommendations that may include proactive management practices to prevent migration of MC to an off-range area.

3.2. CONDUCTING OPERATIONAL RANGE ASSESSMENTS. The DoD Component:

- a. Conducts operational range assessments following the guidance developed in accordance with Paragraph 3.1.
- b. Assesses its operational ranges at least every 5 years, or whenever significant changes (e.g., changes in range operations, site conditions, applicable statutes, regulations, DoD issuances, other policies) occur that may affect determinations the DoD Component made during a previous assessment, whichever is sooner.

c. Bases operational range assessments on a conceptual site model (CSM), evaluates existing technical data to determine if there is a current or potential off-range source-receptor interaction, and develops a sampling strategy, when necessary.

(1) **CSMs.** CSMs of the operational range must include, at a minimum, the media, hydrology, hydrogeology, topography, boundaries, potential migration pathways, and surrounding activities of the operational range. For additional information on developing CSMs, see the U.S. Army Corps of Engineers’ Engineer Manual 200-1-12, the American Society for Testing and Materials E1689-95, and the Environmental Protection Agency’s EPA/240/B-06/001. Assessments will identify and evaluate:

(a) MC, based on current and historical use.

(b) Source areas.

(c) Pathways.

(d) Receptors. The DoD Component derives the potentially affected off-range receptors from the source identification and pathway analysis.

(2) **Source-Receptor Interaction Analysis.** The DoD Component evaluates existing technical data to determine if there is a current or potential off-range source-receptor interaction and takes action as described in Table 1.

Table 1. Source-Receptor Interaction Analysis

<i>If the data...</i>	<i>The DoD Component...</i>
Indicate no potential source-receptor interaction (e.g., cases where a release from an operational range to an off-range area is not likely based on the CSM or where such a release does not create a potential unacceptable risk to receptors).	Documents this finding.
Are insufficient for determining a potential source-receptor interaction (e.g., there are data gaps).	Conducts further analysis (e.g., modeling, sampling) as dictated by the data quality objective (DQO) process.
Indicate a potential source-receptor interaction (e.g., cases where a release from an operational range to an off-range area is likely based on the CSM).	Takes steps necessary (e.g., sampling, modeling) to determine if the potential release exceeds an applicable regulatory reporting standard or there is a potential unacceptable risk to human health or the environment.

(3) **Sampling Strategy.** The DoD Component uses:

(a) CSMs and DQOs to develop the sampling strategy, when necessary.

1. Where there are data gaps, the sampling strategy will provide the necessary information to fill those data gaps.

2. Where data indicate there is a potential source-receptor interaction, the sampling strategy will provide the necessary information to confirm whether a source-receptor interaction exists and whether or not a potential unacceptable risk to human health or the environment exists.

(b) Sampling and analytical methods approved by a recognized authority (e.g., American Society for Testing and Materials, Environmental Protection Agency, the State regulatory agency where the operational range is located) to support the data requirements identified during the source-receptor interaction analysis and dictated by the DQO process.

(c) Explosives safety procedures described in DoDD 6055.09E, DoDIs 4140.62 and 6055.07, and DoDM 6055.09 if access to areas known or suspected to contain unexploded ordnance or discarded military munitions is required.

(d) Applicable regulatory reporting standards or screening values for comparison with sampling data for MC.

3.3. RELEASE OR SUBSTANTIAL THREAT OF RELEASE IDENTIFIED AS A RESULT OF AN OPERATIONAL RANGE ASSESSMENT.

a. When the DoD Component determines there is a substantial threat of a release of MC from an operational range to an off-range area that may create a potential unacceptable risk to human health or the environment, the DoD Component will:

(1) Notify the regulatory authorities as appropriate.

(2) Implement proactive management practices to prevent the migration of MC to an off-range area.

b. When the DoD Component determines there is a release of MC from an operational range to an off-range area that exceeds an applicable regulatory reporting standard, the DoD Component will:

(1) Through their chain of command, notify the Office of the Deputy Assistant Secretary of Defense for Environment, Safety, and Occupational Health (ODASD(ESOH)) immediately.

(2) Notify the appropriate regulatory authorities as required by applicable laws, regulations, or permits.

(3) Address the off-range release as appropriate.

(4) Implement proactive management practices to prevent the further migration of MC to an off-range area.

c. When the DoD Component identifies a release of MC from an operational range to an off-range area that creates a potential unacceptable risk to human health or the environment, the DoD Component will:

- (1) Through their chain of command, notify the ODASD(ESOH) immediately.
- (2) Notify the appropriate regulatory authorities as required by applicable laws, regulations, or permits.
- (3) Address the off-range release as appropriate (e.g., through the Defense Environmental Restoration Program).
- (4) Implement proactive management practices to prevent the further migration of MC to an off-range area.

3.4. REPORTING.

a. DoD Internal Reporting. In addition to the notification requirements in Paragraph 3.3., the DoD Component will respond to the ODASD(ESOH) annual request for information and any additional requests related to the DoD Component's operational range assessments.

b. External Reporting. In addition to the notification requirements in Paragraph 3.3., the DoD Component makes:

- (1) Range assessment schedules available annually to relevant stakeholders and regulators. These schedules will be available on the DoD Environment, Safety, and Occupational Health Network and Information Exchange website.
- (2) Operational range assessment report summaries, including documentation of findings, available to relevant stakeholders and regulators when the assessment is finalized. The summaries will be available on the DoD Environment, Safety, and Occupational Health Network and Information Exchange Website.

3.5. DOCUMENTATION OF FINDINGS. The DoD Component retains operational range assessment findings and supporting documentation in accordance with the records management policies in DoDI 5015.02 and their respective DoD Component records management directives.

GLOSSARY

G.1. ACRONYMS.

CSM	conceptual site model
DoDD	DoD directive
DoDI	DoD instruction
DoDM	DoD manual
DQO	data quality objective
MC	munitions constituents
ODASD(ESOH)	Office of the Deputy Assistant Secretary of Defense for Environment, Safety and Occupational Health
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment

G.2. DEFINITIONS. Unless otherwise noted, these terms and their definitions are for the purposes of this issuance.

contingency operations. Defined in Section 101(a)(13) of Title 10, United States Code.

discarded military munitions. Defined in Section 2710(e)(2) of Title 10, United States Code.

explosives hazard. Defined in Volume 8 of DoDM 6055.09.

explosives mishap. An accident or unexpected event involving military munitions.

explosives safety. Defined in Volume 8 of DoDM 6055.09.

indoor range. A range that is entirely enclosed by walls and a ceiling that uses an air filtration system so there is no potential for release into the environment, and is used exclusively for testing, training, or recreation with weapons (e.g., pistols, rifles, shotguns, machine guns) that fire small arms ammunition.

MC. Defined in Section 2710(e)(3) of Title 10, United States Code.

military munitions. Defined in Section 101(e)(4) of Title 10, United States Code.

off-range area. An area outside the boundary of a range.

operational range. Defined in Section 101(e)(3) of Title 10, United States Code.

pathway. The environmental medium through which an MC of concern is transported from the source to the receptor.

receptor. Human beings and animal or plant species that are exposed, or may be exposed, to MC.

small arms ammunition. Ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller or intended for use in shotguns.

source area. An area where MC have been deposited, disposed, or placed.

sustainable range management. Management of a DoD range to support:

National security objectives and maintain the operational readiness of the U.S. Armed Forces.

The long-term viability of DoD ranges while protecting human health and the environment on and off the operational range.

unexploded ordnance. Defined in Section 101(e)(5) of Title 10, United States Code.

United States. The 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Marianas Islands, American Samoa, Guam, Johnston Atoll, Kingman Reef, Midway Island, Navassa Island, Palmyra Island, the U.S. Virgin Islands, Wake Island, and any other territory or possession over which the United States has jurisdiction, and associated navigable waters, contiguous zones, and ocean waters of which the natural resources are under the exclusive management authority of the United States.

REFERENCES

- American Society for Testing and Materials, ASTM E1689-95, “Standard Guide for Developing Conceptual Site Models for Contaminated Sites,” current edition¹
- “Defense Planning/Programming Guidance,” current edition
- Deputy Secretary of Defense Memorandum, “Establishment of the Office of the Under Secretary of Defense for Research Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” July 13, 2018
- DoD 7000.14-R, Volume 2B, “Department of Defense Financial Management Regulation (DoD FMR): Budget Formulation and Presentation (Chapters 4-19),” September 2008, as amended
- DoD Directive 3200.15, “Sustaining Access to the Live Training and Test Domain,” December 18, 2013
- DoD Directive 4715.1E, “Environment, Safety, and Occupational Health (ESOH),” March 19, 2005
- DoD Directive 5134.01, “Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)),” December 9, 2005, as amended
- DoD Directive 6055.09E, “Explosives Safety Management (ESM),” November 8, 2016, as amended
- DoD Instruction 4140.62, “Material Potentially Presenting an Explosive Hazard (MPPEH),” August 20, 2015, as amended
- DoD Instruction 5015.02, “DoD Records Management Program,” February 24, 2015, as amended
- DoD Instruction 6055.07, “Mishap Notification, Investigation, Reporting, and Record Keeping,” June 6, 2011
- DoD Manual 6055.09, “DoD Ammunition and Explosives Safety Standards,” February 29, 2008, as amended
- DoD Manual 8910.01, Volume 1, “DoD Information Collections Manual: Procedures for DoD Internal Information Collections,” June 30, 2014, as amended
- United States Code, Title 10
- U.S. Army Corps of Engineers, Engineer Manual 200-1-12, “Conceptual Site Models,” December 28, 2012
- U.S. Environmental Protection Agency, EPA/240/B-06/001, “Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4),” February 2006²

¹ Available for purchase at <http://www.astm.org/Standards/E1689.htm>

² Available at https://www.epa.gov/sites/production/files/documents/guidance_systematic_planning_dqo_process.pdf