



DoD INSTRUCTION 5000.69

JOINT SERVICES WEAPON AND LASER SYSTEM SAFETY REVIEW PROCESSES

Originating Component:	Office of the Under Secretary of Defense for Research and Engineering
Effective:	August 10, 2023
Releasability:	Cleared for public release. Available on the Directives Division Website at https://www.esd.whs.mil/DD/ .
Reissues and Cancels:	DoD Instruction 5000.69, "DoD Joint Services Weapon and Laser System Safety Review Processes," November 9, 2011, as amended
Approved by:	Heidi Shyu, Under Secretary of Defense for Research and Engineering

Purpose: In accordance with the authority in DoD Directive (DoDD) 5137.02, this issuance:

- Establishes policy and assigns responsibilities for the DoD Joint Services Weapon System Safety (WSS) and Joint Services Laser System Safety (LSS) review processes, in accordance with the requirements of DoDD 4715.1E, DoDD 5000.01, DoD Instruction (DoDI) 5000.02, DoDI 6055.15, and Military Standard MIL-STD-882E.
- Establishes a requirement for a Joint Services LSS review process for exempt and non-exempt lasers used within the DoD (except lasers used in medical or industrial applications). The Joint Services LSS review will determine the impact to human physiology.
- Establishes a requirement for the Joint Services WSS and LSS review processes to include the integration and user interface of laser devices that are an element of a weapon system.
- Establishes the DoD Joint Weapon Safety Working Group (JWSWG) in accordance with DoDI 5105.18, which will coordinate and liaise with the DoD Laser System Safety Working Group (LSSWG) on Joint Services system safety review processes.

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY.

This issuance applies to:

a. OSD, Military Departments, the Office of the Chairman of the Joint Chiefs of Staff 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 weapon and laser systems (except lasers used in medical and industrial applications), development, acquisition, technology insertions, and test and evaluation programs when two or more DoD Components will use the weapon or laser system.

c. Those fielded legacy systems (i.e., weapon, laser, or related systems) that were not originally Joint Service systems, but which have become Joint Service systems through multi-DoD Component use.

d. Joint legacy weapon and laser systems with design changes, modifications, or technology insertions that have an effect on the safety of the weapon or on the safety of a weapon-related or laser system, including the warhead, propulsion, software, fuze, ignition systems, and other safety-significant systems.

1.2. POLICY.

It is DoD policy to:

a. Address safety throughout the acquisition process.

b. Protect DoD personnel from accidental death, injury, or occupational illness.

c. Protect the public from risk of death, injury, illness, property damage, or environmental impact because of DoD activities.

d. Conduct safety reviews for joint weapon and laser systems through the collaborative meetings of the Joint Services’ weapon safety boards and the DoD laser safety review authorities, respectively.

e. Conduct the Joint Services WSS and LSS review processes in conjunction with, not in addition to, the existing Service WSS and LSS review processes to provide one set of joint weapon or laser safety findings and recommendations. These joint reviews include the Services’ existing weapon, fuze, ignition system, software, and laser safety review boards working collaboratively to provide one set of joint weapon or laser safety findings and recommendations.

f. Require Joint Services WSS and LSS reviews for systems that will be used by two or more DoD Components.

SECTION 2: RESPONSIBILITIES

2.1. UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING (USD(R&E)).

The USD(R&E):

- a. Coordinates and oversees with the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)) the implementation of this issuance within any of the Adaptive Acquisition Framework pathways.
- b. Represents the Secretary of Defense on internal and interagency acquisition matters about WSS reviews.
- c. Maintains and charters the JWSWG in accordance with the guidance in DoDI 5105.18 and Section 3 of this issuance and appoints a representative to the JWSWG.
- d. Provides specific guidance for the Joint Services WSS review process.
- e. In coordination with the Chief Digital and Artificial Intelligence Officer (CDAO), leads the development of system safety engineering data, analytics, and artificial intelligence (AI) policy and guidance (P&G) related to basic research through advanced component and developmental prototyping for Joint Services WSS and LSS reviews.
- f. Supports CDAO in DoD's adoption of data, analytics, and AI from operational prototyping to operations for Joint Services WSS and LSS reviews.
- g. In conjunction with the CDAO, develops AI P&G and AI assurance P&G for Joint Services WSS and LSS reviews.
- h. In coordination with the USD(A&S), addresses any recommendations received from the JWSWG.
- i. Authorizes publication of supporting guidance to provide specific information on the Joint Services WSS and LSS review processes.

2.2. USD(A&S).

The USD(A&S):

- a. Appoints a representative to the JWSWG.
- b. Represents the Secretary of Defense on internal and interagency acquisition matters about LSS reviews.

c. In coordination with the USD(R&E), addresses any recommendations received from the JWSWG.

d. Supports CDAO in DoD's adoption of data, analytics, and AI from operational prototyping to operations for Joint Services WSS and LSS reviews.

2.3. ASSISTANT SECRETARY OF DEFENSE FOR READINESS.

Under the authority, direction, and control of the Under Secretary of Defense for Personnel and Readiness, the Assistant Secretary of Defense for Readiness:

a. Develops policy and provides oversight of LSS to protect DoD personnel and the public from the risk of death, injury, illness, or property damage from the use of military lasers.

b. Uses the DoD LSSWG to provide laser systems safety guidance and policy recommendations for safety and health matters within the DoD in accordance with DoDI 6055.15 and to coordinate risk assessments of, and risk management procedures for, systems in development or used by multiple DoD Components.

c. Represents the Secretary of Defense on internal and interagency laser safety and occupational health matters.

d. Appoints a representative to the JWSWG.

2.4. DIRECTOR OF OPERATIONAL TEST AND EVALUATION (DOT&E)

The DOT&E:

a. Appoints a representative to the JWSWG.

b. Ensures that safety concerns developed during the operational test and evaluation of a weapon system under DOT&E oversight are communicated in a timely manner to the JWSWG and to the program manager for that program for consideration in the acquisition decision-making process.

c. In coordination with the USD(R&E), addresses any recommendations received from the JWSWG.

2.5. CDAO.

The CDAO:

a. Supports safety reviews of joint weapons and laser systems for systems with AI-enabled capabilities.

b. Appoints a representative to the JWSWG.

c. Supports the USD(R&E) in the development of system safety engineering data, analytics, and AI P&G related to basic research through advanced component and developmental prototyping for Joint Services WSS and LSS reviews.

d. In coordination with the USD(R&E) and the USD(A&S), leads DoD's adoption of data, analytics, and AI from operational prototyping to operations for Joint Services WSS and LSS reviews.

e. In conjunction with the USD(R&E), develops AI P&G and AI assurance P&G for Joint Services WSS and LSS reviews.

2.6. DOD COMPONENT HEADS WHO ARE RESPONSIBLE FOR DEVELOPING AND ACQUIRING JOINT WEAPONS AND LASER SYSTEMS.

The DoD Component heads who are responsible for developing and acquiring joint weapons and laser systems:

- a. Plan and budget for Joint Services WSS and LSS reviews.
- b. Support Joint Services WSS and LSS review requirements.
- c. Appoint representative(s) to the JWSWG.
- d. Ensure that component program executive officers, program managers, direct-reporting program managers, and joint capability technology demonstrations or science and technology transition managers conduct Joint Services WSS and LSS reviews.

SECTION 3: JWSWG

The JWSWG will:

- a. Consist of WSS representatives from each of the Military Departments, the United States Special Operations Command, the Office of the USD(A&S), DOT&E, the Office of the USD(R&E), the Joint Staff, the Office of the CDAO, DoD Components whose Component heads are responsible for developing and acquiring weapons and laser systems, and a representative of the LSSWG. The representatives will be full-time or permanent part-time Federal employees.
- b. Be chaired by the Chairs of the Services' WSS review boards or their designee.
- c. Meet at the call of the Chairs to recommend policies and priorities to enhance Joint Services WSS and LSS.
- d. In coordination with the LSSWG, make recommendations to the Offices of the USD(R&E) and the USD(A&S) relating to all aspects of safety for joint weapons, directed-energy weapons, weapon systems, weapon system platforms including unmanned platforms, and laser systems.
- e. Recommend new or revised procedures relating to weapon and laser systems and associated new technologies, such as standard Joint Services' weapon and laser systems test and evaluation criteria.
- f. Appoint Joint Services' weapon safety subgroups, as necessary.

GLOSSARY

G.1. ACRONYMS.

ACRONYM	MEANING
AI	artificial intelligence
CDAO	Chief Digital and Artificial Intelligence Officer
DoDD	DoD directive
DoDI	DoD instruction
DOT&E	Director of Operational Test and Evaluation
DSOC	Defense Safety Oversight Council
JWSWG	Joint Weapon Safety Working Group
LSS	laser system safety
LSSWG	Laser System Safety Working Group
MIL-STD	military standard
P&G	policy and guidance
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment
USD(R&E)	Under Secretary of Defense for Research and Engineering
WSS	weapon system safety

G.2. DEFINITIONS.

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

TERM	DEFINITION
directed energy weapon	Defined in the DoD Dictionary of Military and Associated Terms.
Joint Services	Functions performed by a jointly staffed and financed activity in support of two or more Military Services.
Joint Services LSS Review	A safety review that is conducted in a joint, collaborative manner by the Services' laser safety review boards and authorities that will result in one set of Joint Service laser safety findings.

TERM	DEFINITION
Joint Services WSS Review	A safety review that is conducted in a joint, collaborative manner by the Joint Services' existing weapon, fuze, ignition system, or software safety review boards and authorities that will result in one set of findings for the review conducted.
joint weapon	Includes all weapons, as defined in this issuance, with a joint potential designator of Joint Requirements Oversight Council Interest, Joint Capabilities Board Interest, Joint Integration, and Joint Information, to include any new acquisition and legacy weapons that are used, transported, or stored by two or more DoD Components.
laser	A device that generates an intense beam of coherent monochromatic light (or other electromagnetic radiation) by stimulated emission of photons from excited atoms or molecules.)
weapon	<p>Includes:</p> <ul style="list-style-type: none">Military munitions, as defined in Section 101(e)(4) of Title 10, United States Code.Weapon system, as defined in the DoD Dictionary of Military and Associated Terms.Directed-energy weapons. <p>Does not include:</p> <ul style="list-style-type: none">Nuclear weapons.Space launch vehicles.Non-lethal weapons, together with associated firing, launching, and controlling systems, to include software.The non-weapon related aspects of vehicles or platforms, such as engines, transmissions, chassis components, etc., from which military munitions, directed-energy weapons, and non-lethal weapons, are fired or launched.

TERM	DEFINITION
weapon-related system	<p>Those components required for a weapon’s operation and support. Includes:</p> <p>All explosive items, test equipment, simulators, guidance systems, fire control systems and launchers, and their components.</p> <p>Software and firmware related to monitoring, arming, initiation, or deployment of a weapon.</p> <p>The packaging, handling, storage, and transport of explosive items and related components.</p>
WSS	<p>The aggregate of analytical and testing processes, procedures, training, and policy used to ensure that the risks associated with weapons and related systems are reduced to the lowest extent practical throughout the system’s life cycle.</p>

REFERENCES

- DoD Directive 4715.1E, “Environment, Safety, and Occupational Health (ESOH),”
March 19, 2005, as amended
- DoD Directive 5000.01, “The Defense Acquisition System,” September 9, 2020, as amended
- DoD Directive 5137.02, “Under Secretary of Defense for Research and Engineering
(USD(R&E)),” July 15, 2020
- DoD Instruction 5000.02, “Operation of the Adaptive Acquisition Framework,”
January 23, 2020, as amended
- DoD Instruction 5105.18, “DoD Intergovernmental and Intragovernmental Committee
Management Program,” July 10, 2009, as amended
- DoD Instruction 6055.15, “DoD Laser Protection Program,” May 4, 2007, as amended
- Military Standard MIL-STD-882E, “Department of Defense Standard Practice: System Safety,”
May 11, 2012
- Office of the Chairman of the Joint Chiefs of Staff, “DoD Dictionary of Military and Associated
Terms,” current edition
- United States Code, Title 10, Section 101(e)(4)