Subject: DoD Joint Services Weapon and Laser System Safety Review Processes

References: See Enclosure 1

1. PURPOSE. This Instruction, consistent with the authority in DoD Directive (DoDD) 5134.01 (Reference (a)):

   a. Establishes policy and assigns responsibilities for the DoD Joint Services Weapon and Laser System Safety Review Processes, consistent with the requirements of DoDD 5000.01 (Reference (b)), DoDD 4715.1E (Reference (c)), DoD Instruction (DoDI) 5000.02 (Reference (d)), DoD 6055.09-M (Reference (e)), DoDI 6055.15 (Reference (f)), sections 3013, 5013, and 8013 of title 10, United States Code (U.S.C.) (Reference (g)), DoDD 3000.03E (Reference (h)), and Military Standard 882 (Reference (i)).

   b. Requires Joint Service safety reviews for weapon and laser systems that will be used by two or more DoD Components.

   c. According to DoDI 5105.18 (Reference (j)), establishes a DoD Joint Weapon Safety Working Group (JWSWG) that will coordinate and liaise with the DoD Laser System Safety Working Group (LSSWG) on joint safety review processes.

   d. Authorizes publication of supporting guidance to provide specific information on the DoD Joint Services weapon and laser system safety processes.

2. APPLICABILITY. This Instruction applies to:

   a. OSD, the Military Departments, the Office of the Chairman of the Joint 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 Instruction as the “DoD Components”).
b. All weapon and laser systems development, acquisition, and test and evaluation programs when two or more DoD Components will be using the weapon or laser system.

c. Those fielded legacy systems (weapon, laser, or other appropriate system) that were not originally joint Service systems, but which have become joint through multi-DoD Component use.

d. Design changes or modifications to legacy weapons that have an effect on the safety of the warhead, propulsion system, and related fuzing and ignition systems.

3. DEFINITIONS. See Glossary.

4. POLICY. In accordance with References (b) and (c), 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, or property damage because of DoD activities.

d. Conduct safety reviews for joint weapon and laser systems through the collaborative meetings of the Services’ existing safety boards and the Joint Laser Approval Process, respectively.

e. Conduct the Joint Weapon Safety Review Process and the Joint Laser Approval Process for joint weapon and laser systems in conjunction with, not in addition to, the existing Service weapon safety and laser safety review processes. 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 for a joint system.

5. RESPONSIBILITIES. See Enclosure 2.

6. RELEASABILITY. Cleared for public release. This Instruction is available on the Directives Division Website at http://www.esd.whs.mil/DD/.

7. SUMMARY OF CHANGE 2. This change reassigns the office of primary responsibility for this Instruction to the Under Secretary of Defense for Research and Engineering in accordance with the July 13, 2018 Deputy Secretary of Defense Memorandum (Reference (k)).
7. **EFFECTIVE DATE.** This instruction is effective November 9, 2011

[Signature]

Frank Kendall  
Acting Under Secretary of Defense  
for Acquisition, Technology, and Logistics

Enclosures
1. References  
2. Responsibilities  
3. JWSWG

Glossary
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REFERENCES

(c) DoD Directive 4715.1E, “Environment, Safety, and Occupational Health (ESOH),” March 19, 2005
(d) DoD Instruction 5000.02, “Operation of the Defense Acquisition System,” January 7, 2015, as amended
(g) Sections 101(e)(4), 3013, 5013, and 8013 of title 10, United States Code
(h) DoD Directive 3000.03E, “DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy,” April 25, 2013
(j) DoD Instruction 5105.18, “DoD Intergovernmental and Intragovernmental Committee Management Program, July 10, 2009, as amended
(k) Deputy Secretary of Defense Memorandum, “Establishment of the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” July 13, 2018
ENCLOSURE 2

RESPONSIBILITIES

1. UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS (USD(AT&L)). The USD(AT&L) shall oversee implementation of this Instruction during all phases of the weapon and laser system life cycle as defined in Reference (d).

2. ASSISTANT SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING (ASD(R&E)). The ASD(R&E), under the authority, direction, and control of the USD(AT&L), shall:
   a. Coordinate with the Assistant Secretary of Defense for Energy, Installations, and Environment (ASD(EI&E)) in the implementation of this Instruction.
   b. Represent the Secretary of Defense on internal and interagency acquisition matters pertaining to weapon and laser system safety reviews.
   c. Establish and charter the JWSWG following the guidance in Reference (j) and Enclosure 3, designate the Chair, and appoint Office of the USD(AT&L) representatives.

3. (ASD(EI&E)). The ASD(EI&E), under the authority, direction, and control of USD(AT&L), shall provide leadership and guidance to the LSSWG in accordance with Reference (f).

4. HEADS OF THE DoD COMPONENTS RESPONSIBLE FOR DEVELOPING AND ACQUIRING WEAPONS AND LASER SYSTEMS. The Heads of the DoD Components responsible for developing and acquiring weapons and laser systems shall:
   a. Plan, program, and budget for safety reviews of the joint weapons and laser systems under their cognizance.
   b. Support joint Services weapon and laser system safety review requirements.
   c. Appoint representative(s) as appropriate 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 weapon and laser system safety reviews for joint

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systems being operationally deployed through the Joint Weapon Safety Review Process and Joint Laser Approval Process, respectively.
The JWSWG shall:

a. Consist of weapon system safety representatives from each of the Military Departments, the Missile Defense Agency, the United States Special Operations Command, the Office of the USD(AT&L), the Joint Staff, and a member of the LSSWG. The representatives shall be full-time or permanent part-time Federal employees.

b. Meet at the call of the Chair to evaluate joint weapon, weapon-related systems, and laser system safety items, and recommend policies and priorities to enhance joint weapon and laser system safety. The Chair of the JWSWG shall serve a 12-month term of service, and may rotate among the organizations identified in paragraph a. of this enclosure. The JWSWG shall nominate Chairs for designation by the ASD(R&E).

c. Make recommendations, in coordination with the LSSWG, to the ASD(R&E) and ASD(EI&E) relating to all aspects of joint weapon and laser system safety.

d. Recommend new or revised procedures relating to weapon and laser systems, such as standard joint Services’ weapon and laser systems test and evaluation criteria or related industry standards.

e. Appoint a Joint Service Weapon Safety Test Subgroup from within the JWSWG to identify and address joint weapon system safety testing requirements to standardize and harmonize test requirements and procedures across the DoD Components.
GLOSSARY

PART I. ACRONYMS AND ABBREVIATIONS

ASD(EI&E) Assistant Secretary of Defense for Energy, Installations, and Environment
ASD(R&E) Assistant Secretary of Defense for Research and Engineering
DEW directed energy weapon
DoDD Department of Defense Directive
DoDI Department of Defense Instruction
JWSWG Joint Weapon Safety Working Group
LSSWG Laser System Safety Working Group
USD(AT&L) Under Secretary of Defense for Acquisition, Technology, and Logistics

PART II. DEFINITIONS

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

directed-energy weapon. Defined in the DoD Dictionary of Military and Associated Terms (Reference (l)).

joint weapon. Includes all weapons, as defined in this Instruction, with a joint potential designator of Joint Requirements Oversight Council Interest, Joint Capabilities Board Interest, Joint Integration, and Joint Information, to include weapons that are used, transported, or stored by two or more DoD Components.

Joint Service Laser Safety Review. A safety review that is conducted in a joint, collaborative manner by the Services’ existing laser safety review boards and authorities that will result in one set of joint Service laser safety findings.

Joint Service Weapon Safety Review. A safety review that is conducted in a joint, collaborative manner by the 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.

laser. Defined in Reference (l).

non-lethal weapons. Defined in Reference (h).

weapon. Military munitions, as defined in section 101(e)(4) of Reference (g), directed-energy weapons (DEW), non-lethal weapons, and electromagnetic rail guns, together with associated...
firing, launching, and controlling systems, to include safety critical software. As used in this Instruction, the term “weapon” does not include nuclear weapons; space launch vehicles; and the non-weapon related aspects of vehicles or platforms, such as engines, transmissions, chassis components, etc., from which military munitions, DEW, non-lethal weapons, or rail guns are fired or launched.

**weapon-related system.** Those components required for a weapon’s operation and support. Weapon-related systems include all explosive items, test equipment, simulators, guidance systems, fire control systems and launchers and their components. Software and firmware related to monitoring, arming, initiation, or deployment of a weapon is included. This definition also encompasses the packaging, handling, storage, and transport of explosive items and related components.

**weapon system safety.** Weapon system safety is 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.