

U.S. Department of Defense Response to Stockholm International Peace Research Institute (SIPRI) “questionnaire on Article 36 review process”

September 1, 2017

Thank you for the opportunity to provide information related to the practice of the United States in the review of the legality of weapons. We intend to make our responses, along with this questionnaire, available to the public, as the U.S. Government generally seeks to make this type of information public in the interests of transparency. We request the opportunity to review how SIPRI characterizes information drawn from our responses in any materials that it is considering publishing.

In drafting this response, we have used footnotes to identify the source of the information in the main text of the response. The sources reflect the most current, authoritative descriptions of U.S. and Department of Defense (DoD) legal views and policy, rather than the response itself. Therefore, nothing in this response should be construed as revising or deviating from the legal views and policy reflected in sources.

This response could be understood best as a guide to the many U.S. and DoD sources that provide the information that is responsive to the SIPRI questions. Thus, if SIPRI would like to refer to the information in the main text of the response, we would ask that you refer to and cite the source, rather than this response. Also, reviewers are encouraged to review the sources for additional context and for any changes to the sources, including substantive revisions or updates, or to ensure that the source has not been cancelled or superseded through, for example, the issuance of successor directives or instructions. For example, it may be prudent to review the sources related to the Department of the Air Force’s weapons review policy because those sources are currently being reviewed, with a view toward amending and reissuing one or more of the sources in the near future. In this document, we have consistently used long form citations, rather than short form citations, to help reviewers identify the sources quickly, especially because some reviewers may not be familiar with some of the sources.

Quotes from sources are often given in parentheticals within the footnotes, even though the information in the main text of the response may be the same or substantially similar to text of the source. We have included these quotes to provide reviewers a relatively easy means of comparing the information in the main text of the response with the text of the source. Please note that we have omitted internal citations from most quotes that otherwise contain such citations. Reviewers are encouraged to verify quotes using the source.

This response was prepared by DoD military and civilians attorneys, including judge advocates of the U.S. Army, the U.S. Navy, the U.S. Air Force, and the U.S Marine Corps. It has been approved by Mr. Charles Allen, DoD Deputy General Counsel (International Affairs).

Format and Responsibilities

1. When and how was the review mechanism established (by legislation, directive...)?

As a matter of U.S. Department of Defense (DoD) policy, the intended procurement or acquisition of DoD weapons and weapon systems is reviewed for consistency with all applicable U.S. domestic law and the international legal obligations of the United States, including arms control obligations and the law of war.¹ DoD policy establishes a requirement for such reviews to be conducted by an authorized attorney, but DoD policy does not establish a particular formal procedure through which all of the reviews must be conducted.²

The regulations of particular DoD components, such as the Department of the Army, the Department of the Navy, and the Department of the Air Force, that implement the DoD policy requirement in each component's respective area of responsibility establish procedures with varying degrees of specificity.³ These procedures are supplemented by the normal procedures of the legal office of the attorney authorized to conduct the review, as well as the attorney's professional discretion. Thus, U.S. practice and procedures relating to the review of the legality of weapons are not conducted through a single, formal "review mechanism" as seems to be contemplated by this question and some of the questions that follow.

DoD policy does not establish a specific requirement to review the lawfulness of new "methods of warfare" that are studied, developed, or acquired. In practice, legal advice regarding new

¹ See DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.15 (May 12, 2003, certified current as of Nov. 20, 2007) ("The acquisition and procurement of DoD weapons and weapon systems shall be consistent with all applicable domestic law and treaties and international agreements (for arms control agreements, see DoD Directive 2060.1 (Reference (m)[l]), customary international law, and the law of armed conflict (also known as the laws and customs of war)."); see also DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶4 (Apr. 25, 2013) ("The GC, DoD ensures the review of the legality of NLW as provided in DoDDs 5145.01, 5000.01, and 2311.01E (References (g), (h), and (i))."); encl. 2, ¶11 ("The Secretaries of the Military Departments and the Commander, USSOCOM, through the CJCS: . . . [r]equire, as appropriate, that a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with DoDD 2060.1 (Reference (l))."); encl. 2, ¶13 ("In his or her capacity as the DoD EA for NLW, the CMC: . . . [e]nsures a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with Reference (l).").

² See DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.15 (May 12, 2003, certified current as of Nov. 20, 2007) ("An attorney authorized to conduct such legal reviews in the Department shall conduct the legal review of the intended acquisition of weapons or weapons systems.").

³ See, e.g., Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶1 (Jan. 1, 1979) ("This regulation – . . . b. Prescribes procedures and assigns responsibilities for submission of weapon or weapon systems to The Judge Advocate General (TJAG) for legal review under international law."); Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1 (Sept. 1, 2011) ("Purpose a. To issue mandatory procedures for Department of the Navy (DON) implementation of references (a), (b), (c), and (d) for major and non-major defense acquisition programs and major and non-major information technology (IT) acquisition programs."); Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, page 1 (Jul. 27, 2011) ("[This Instruction] prescribes guidance and procedures for the review of Air Force weapons and cyber capabilities to ensure legality under domestic and international law including the Law of Armed Conflict (LOAC).").

methods of warfare is given where appropriate. For example, an attorney reviewing the legality of the acquisition of a weapon would often review the legality of any new method of warfare that may be suggested for the use of that weapon.

Similarly, DoD policy establishes a responsibility for the heads of DoD components to make qualified legal advisers at all levels of command available to provide advice about law of war compliance during the planning and execution of military exercises and operations.⁴ Also, certain senior operational commanders are required as a matter of DoD policy to ensure that all plans, policies, directives, and rules of engagement issued by them and their subordinate commands and components are reviewed by legal advisers to ensure their consistency with the law of war and DoD policy requirements related to the law of war's implementation.⁵

2. *Under which authority is the review mechanism?*

The United States does not have a single, formal “review mechanism.” DoD policy has long required the review of the intended acquisition of DoD weapons.⁶ Particular DoD components, such as the Department of the Army, the Department of the Navy, and the Department of the Air Force, have promulgated regulations to implement this requirement within each's respective area of responsibility.⁷

⁴ See DoD Directive 2311.01E, *DoD Law of War Program*, ¶5.7 (May 9, 2006, incorporating change 1, Nov. 15, 2010, certified current as of Feb. 22, 2011) (“The Heads of the DoD Components shall: . . . 5.7.3. Make qualified legal advisers at all levels of command available to provide advice about law of war compliance during planning and execution of exercises and operations; and institute and implement programs that comply with the reporting requirements established in section 6.”).

⁵ See DoD Directive 2311.01E, *DoD Law of War Program*, ¶5.11 (May 9, 2006, incorporating change 1, Nov. 15, 2010, certified current as of Feb. 22, 2011) (“The Commanders of the Combatant Commands shall: . . . 5.11.8. Ensure all plans, policies, directives, and rules of engagement issued by the command and its subordinate commands and components are reviewed by legal advisers to ensure their consistency with this Directive and the law of war.”).

⁶ For example, DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.15 (May 12, 2003, certified current as of Nov. 20, 2007) (“The acquisition and procurement of DoD weapons and weapon systems shall be consistent with all applicable domestic law and treaties and international agreements (for arms control agreements, see DoD Directive 2060.1 (Reference (m)[)], customary international law, and the law of armed conflict (also known as the laws and customs of war). An attorney authorized to conduct such legal reviews in the Department shall conduct the legal review of the intended acquisition of weapons or weapons systems.”); DoD Directive 5000.1, *Defense Acquisition* ¶4.2.10 (Mar. 15, 1996, administrative reissuance incorporating change 1, May 21, 1999, cancelled by DoD Directive 5000.1 (Oct. 23, 2000)) (“DoD acquisition and procurement of weapons shall be consistent with *applicable domestic law* and all applicable treaties, customary international law, and the law of armed conflict (also known as the laws and customs of war).”); DoD Instruction 5500.15, *Review of Legality of Weapons Under International Law*, ¶II (Oct. 16, 1974, cancelled by DoD Instruction 5000.2 (Feb. 23, 1991)) (“All actions of the Department of Defense with respect to the acquisition and procurement of weapons, and their intended use in armed conflict, shall be consistent with the obligations assumed by the United States Government under all applicable treaties, with customary international law, and, in particular, with the laws of war.”).

⁷ See, e.g., Army Regulation 27-53, *Review of Legality of Weapons Under International Law* (Jan. 1, 1979); Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System* (Sep. 1, 2011); Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities* (Jul. 27, 2011).

Even before the issuance of such requirements, the United States has reviewed the legality of weapons as part of its efforts to implement the international obligations of the United States. For example, during World War I, the Office of the Judge Advocate General of the Army opined that then-newly designed armor-piercing ammunition was a lawful weapon.⁸

The Department of Defense's practice of reviewing the legality of weapons is established, implemented through, and described in a variety of directives, regulations, and other issuances and publications. Below, we provide a list of such issuances and publications, including references in those documents to the requirement to review the legality of weapons:

DoD Directives

- DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.15 (May 12, 2003, certified current as of Nov. 20, 2007) (“The acquisition and procurement of DoD weapons and weapon systems shall be consistent with all applicable domestic law and treaties and international agreements (for arms control agreements, see DoD Directive 2060.1 (Reference (m)[)], customary international law, and the law of armed conflict (also known as the laws and customs of war). An attorney authorized to conduct such legal reviews in the Department shall conduct the legal review of the intended acquisition of weapons or weapons systems.”).

DoD Directive 5000.01 is publicly available at <http://www.dtic.mil/whs/directives/corres/pdf/500001p.pdf>.

- DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶4 (Apr. 25, 2013) (“The GC, DoD ensures the review of the legality of NLW as provided in DoDDs 5145.01, 5000.01, and 2311.01E (References (g), (h), and (i)).”); encl. 2, ¶11 (“The Secretaries of the Military Departments and the Commander, USSOCOM, through the CJCS: . . . [r]equire, as appropriate, that a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with DoDD 2060.1 (Reference (l)).”); encl. 2, ¶13 (“In his or her capacity as the DoD EA for NLW, the CMC: . . . [e]nsures a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with Reference (l).”).

DoD Directive 3000.03E is publicly available at <http://www.dtic.mil/whs/directives/corres/pdf/300003p.pdf>.

- DoD Directive 3000.09, *Autonomy in Weapon Systems*, ¶8 (Nov. 21, 2012) (“The Secretaries of the Military Departments; the Commander, USSOCOM; and the Heads of the Defense Agencies and DoD Field Activities shall: . . . b. Ensure that legal reviews of

⁸ U.S. Army Ordnance, 1917-1919, No. 1940, *History of Small-Arms Ammunition* 15 (1920) (“The Judge Advocate General’s Office has given the opinion that the armor-piercing ammunition is a lawful weapon, but pilots hesitate to use it on account of fear of the action of the Germans in case of capture.”).

autonomous and semi-autonomous weapon systems are conducted in accordance with References (b), (c), (g) and, where applicable, Reference (d). Legal reviews should ensure consistency with all applicable domestic and international law and, in particular, the law of war.”).

DoD Directive 3000.09 is publicly available at <http://www.dtic.mil/whs/directives/corres/pdf/300009p.pdf>.

- DoD Directive 5145.01, *General Counsel of the Department of Defense (GC DoD)*, ¶3 (Dec. 2, 2013, incorporating change 2, effective Jan. 30, 2015) (“The GC DoD is the chief legal officer of the DoD and: . . . n. Provides guidance on, and coordination of, significant legal issues in: . . . (3) The review of the legality of weapons, in accordance with DoDD 5000.01 (Reference (m)), including: (a) Non-lethal weapons, in accordance with DoDD 3000.03E (Reference (n)). (b) Autonomy in weapon systems, in accordance with DoDD 3000.09 (Reference (o)). (c) The review of the legality of cyber capabilities, in accordance with Reference (l).”).

DoD Directive 5145.01 is publicly available at <http://www.dtic.mil/whs/directives/corres/pdf/514501p.pdf>.

- DoD Directive 2311.01E, *DoD Law of War Program*, ¶6.1 (“In the further implementation of this Directive, that part of the law of war relating to legal reviews of the acquisition and procurement of weapons and weapon systems for the DoD Components is addressed in DoD Directive (DoDD) 5000.01 (Reference (m)), DoDD 3000.3 (Reference (n)), and in related guidance pertaining to Special Access Programs.”).

DoD Directive 2311.01E is publicly available at <http://www.dtic.mil/whs/directives/corres/pdf/231101e.pdf>.

Other Publications

- DoD Law of War Manual, § 6.2 (DoD Policy of Reviewing the Legality of Weapons) (June 2015, Updated Dec. 2016) (“As provided in DoD issuances, DoD policy for many years has required the legal review of the intended acquisition or procurement of weapons or weapon systems; this review includes ensuring that such acquisition or procurement is consistent with the law of war. These DoD policy requirements have been implemented in Military Department regulations.”).

The DoD Law of War Manual is publicly available at <http://www.dod.mil/dodgc/>.

Department of the Army

- Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶1 (Feb. 1, 1979) (“This regulation – a. Implements DOD Instruction 5500.15 as it applies to the review of legality of weapons under international law.”).

Army Regulation 27-53 is publicly available at <http://www.apd.army.mil/Search/ePubsSearch/ePubsSearchDownloadPage.aspx?docID=0902c85180010da4>.

Department of the Navy

- Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1 (Sep. 1, 2011) (“All potential weapons and weapons systems acquired or developed by [the Department of the Navy] shall be reviewed by the Judge Advocate General (JAG) of the Navy during the program decision process to ensure that the intended use of such weapons or systems is consistent with domestic and international law.”).

Secretary of the Navy Instruction 5000.2E is publicly available at <http://www.public.navy.mil/cotf/OTD/SECNAVINST%205000.2E.pdf>.

Department of the Air Force

- Air Force Policy Directive 51-4, *Compliance With the Law of Armed Conflict*, ¶6 (Aug. 4, 2011) (“**All weapons and cyber capabilities developed, acquired or modified by the Air Force are required to have a legal review to ensure compliance with LOAC, domestic and international law prior to employment in military operations.** These weapons reviews shall be consistent with the requirements outlined in DoDD 5000.1, *The Defense Acquisition System* and DoDD 3000.3, *Policy for Non-Lethal Weapons*.”).

Air Force Policy Directive 51-4 is publicly available at http://static.e-publishing.af.mil/production/1/af_a3_5/publication/afpd51-4/afpd51-4.pdf.

- Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, page 1 (July 27, 2011) (“This Instruction implements Air Force Policy Directive (AFPD) 51-4, *Compliance with the Law of Armed Conflict*, and is consistent with Department of Defense Directive (DoDD) 2311.01E, *DoD Law of War Program*; DoDD 3000.3, *DoD Policy on Non-Lethal Weapons*; DoDD 5000.1, *The Defense Acquisition System*; and AFPD 63-1, *Acquisition and Sustainment Life Cycle Management*.”).

Air Force Instruction 51-402 is publicly available at http://static.e-publishing.af.mil/production/1/af_a3_5/publication/afi51-402/afi51-402.pdf.

3. *Who is responsible for carrying out the review? (special committee, an individual reviewer?)*

Pursuant to DoD policy, as reflected in DoD Directive 5000.01, an attorney authorized to conduct such legal reviews in the Department is to conduct the legal review of the intended acquisition of weapons or weapon systems.⁹

In general, the Heads of DoD Components that acquire weapons or weapon systems (e.g., the Secretary of the Army, the Secretary of the Navy, the Secretary of the Air Force) are required to ensure that DoD policy is implemented, including the requirement related to the legal review of the intended acquisition of weapons or weapon systems. The Heads of DoD Components may specify additional or more exacting requirements, consistent with DoD policy.

Within DoD, the legal review of weapons is one aspect of a much larger process of acquiring weapons. Rather than leading the acquisition process or directing other departments, sectors, and experts involved in the acquisition process, lawyers support the larger acquisition process by helping ensure that the acquisition is consistent with U.S. and applicable international law.

Department of the Army

Within the Department of the Army, the Judge Advocate General of the Army is to review all weapons or weapon systems to be acquired by the Department of the Army.¹⁰

Department of the Navy

Within the Department of the Navy, the Judge Advocate General of the Navy is to review all potential weapons and weapon systems acquired or developed by the Department of the Navy during the program decision process to ensure that the intended use of such weapons or systems is consistent with domestic and international law.¹¹ All systems acquired by the Department of the Navy are to also be reviewed by the Director, Strategic Systems Programs, via the Naval Treaty Implementation Program Office, with the advice of the U.S. Navy Office of General Counsel, to certify compliance with arms control agreements.¹²

⁹ See DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.15 (May 12, 2003, certified current as of Nov. 20, 2007) (“An attorney authorized to conduct such legal reviews in the Department shall conduct the legal review of the intended acquisition of weapons or weapons systems.”).

¹⁰ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶4b (Jan. 1, 1979) (“All weapons or weapon systems subject to this regulation will be reviewed by the TJAG.”).

¹¹ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1 (Sept. 1, 2011) (“All potential weapons and weapons systems acquired or developed by DON shall be reviewed by the Judge Advocate General (JAG) of the Navy during the program decision process to ensure that the intended use of such weapons or systems is consistent with domestic and international law.”).

¹² Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.2 (Sept. 1, 2011) (“All systems acquired or developed by DON shall be reviewed by the Director, Strategic Systems Programs (DIRSSP)

Department of the Air Force

Within the Department of the Air Force, the Judge Advocate General of the Air Force will ensure that all weapons being developed, bought, built, modified, or otherwise being acquired by the Air Force that are not within a Special Access Program are reviewed for legality under the law of war, domestic law, and international law prior to their acquisition for use in a conflict or other military operation.¹³ The authorities of the Judge Advocate General of the Air Force related to ensuring that all Air Force weapons are reviewed for legality may be delegated to the Director of the Operations and International Law Directorate.¹⁴

The Operations and International Law Directorate of the Office of the Judge Advocate General of the Air Force will, upon request, conduct a timely legal review of all Air Force weapons to ensure legality under the law of war, domestic law, and international law prior to their acquisition for use in a conflict or other military operation.¹⁵

For Air Force weapons developed within a Special Access Program, the General Counsel of the Department of the Air Force is to accomplish a legal review, in coordination with Judge Advocate General of the Air Force, as appropriate.¹⁶ A Special Access Program is a program activity that has enhanced security measures and that imposes safeguarding and access requirements that exceed those normally required for information at the same classification level.¹⁷

via the Naval Treaty Implementation Program (NTIP) Office (NT00), with the advice of Navy Office of General Counsel (OGC), to certify compliance with arms control agreements.”).

¹³ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶1.1 (Jul. 27, 2011) (“The Judge Advocate General (AF/JA) will: 1.1.1. Ensure all weapons being developed, bought, built, modified or otherwise being acquired by the Air Force that are not within a Special Access Program are reviewed for legality under LOAC, domestic law and international law prior to their possible acquisition for use in a conflict or other military operation. . . . 1.1.2 Ensure all cyber capabilities being developed, bought, built, modified or otherwise acquired by the Air Force that are not within a Special Access Program are reviewed for legality under LOAC, domestic law and international law prior to their acquisition for use in a conflict and or other military operation.”).

¹⁴ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶1.1.1 (Jul. 27, 2011) (“This authority may be delegated to the Director, Operations and International Law Directorate (AF/JAO).”).

¹⁵ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶1.3 (Jul. 27, 2011) (“The Operations and International Law Directorate, Office of The Judge Advocate General (AF/JAO) will: 1.3.1. Upon request, conduct a timely legal review of all weapons and cyber capabilities, whether a new weapon or cyber capability at an early stage of the acquisition process, or a contemplated modification of an existing weapon system or cyber capability, to ensure legality under LOAC, domestic law and international law prior to their acquisition for use in a conflict or other military operation.”).

¹⁶ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶1.2 (Jul. 27, 2011) (“**General Counsel (SAF/GC)**. In coordination with AF/JA as appropriate, SAF/GC shall accomplish a legal review of each weapon or cyber capability developed within a Special Access Program.”).

¹⁷ See DoD Instruction 5205.11, *Management, Administration, and Oversight of DoD Special Access Programs (SAPs)*, Glossary, page 38 (Feb. 6, 2013) (“**SAP**. A program activity which has enhanced security measures and imposes safeguarding and access requirements that exceed those normally required for information at the same level. Information to be protected within a SAP is identified by a [Security Classification Guide].”).

4. *What types of actors are involved in the review (e.g. ministries, departments, agencies, non-governmental experts)?*

As noted in our response above, the legal review of weapons is one aspect of a much larger process of acquiring weapons. Although this question seems to contemplate a legal review process that involves experts from other areas, we think it is more accurate to characterize DoD as implementing an acquisition process that includes legal review.

DoD policy generally does not specify the specific information that must be considered during the legal review of weapons and from what sources it must be obtained. The type of information to be considered will depend on the nature of the specific legal requirement being considered. In the case of non-lethal weapons, DoD policy provides that DoD components are to ensure that human effects assessment data is provided to support the legal review.¹⁸ Also, as noted in our response above, each Head of a DoD Component may specify additional or more exacting requirements applicable to that Component, consistent with DoD policy, including by specifying what kind of information attorneys authorized to conduct legal reviews are to consider and from what sources.

Department of the Army

Within the Department of the Army, the materiel developer responsible for acquiring a weapon or weapon system is to provide the Judge Advocate General of the Army a general description of the weapon or weapon system, including a description of the mission and the desired terminal ballistic effects of the weapon or weapon system.¹⁹ Tests and laboratory studies are acceptable.²⁰

The Judge Advocate General of the Army may request any pertinent additional information needed for a legal review from the materiel developer; the Army Deputy Chief of Staff for Research, Development, and Acquisition; the Army Surgeon General; or any other DoD component.²¹

¹⁸ DoD Instruction 3200.19, *Non-Lethal Weapons (NLW) Human Effects Characterization*, ¶6 (May 17, 2012) (“The Secretaries of the Military Departments and the Commander, USSOCOM, shall: . . . d. Ensure human effects assessment data is provided to the servicing legal office to support the legal review of non-lethal weapons required during the acquisition process.”).

¹⁹ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶6c (Jan. 1, 1979) (“The Materiel Developer will . . . (2) Provide to TJAG a general description of the weapon or weapon system submitted for legal review. This will include a description of the mission and the desired terminal ballistic effects of the weapon or weapon system.”).

²⁰ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶6c(2) (Jan. 1, 1979) (“Tests and laboratory studies are acceptable.”).

²¹ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶6d (Jan. 1, 1979) (“TJAG will request any pertinent additional information needed for a legal review from the Materiel Developer, DCSRDA, The Surgeon General, and any other component or agency of the Department of Defense.”).

Department of the Navy

Within the Department of the Navy, the command requesting the initiation of the legal review is to prepare and forward to the Office of the Judge Advocate General of the Navy (International and Operational Law) a memorandum containing certain information in commonly understood language.²² In particular, the memorandum is to have a complete description of the weapon or weapon system, including a list of all its parts, how it functions, what it does, the manning level required for its use, and whether it is self-propelled, mounted, or attached to a platform, or whether it is portable.²³ The memorandum is also to describe the concept or method of employment planned for the use of the weapon or weapon system, including detailed information from the final approved concept of operation or method of employment that describes exactly how the system will be used.²⁴ The memorandum is also to provide information regarding the weapon or weapon system's accuracy, including a comparison of the accuracy of the new weapon or weapon system to similar weapons or weapon systems that have been acquired and that have received a legal review,²⁵ as well as information regarding the weapon or weapon

²² Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language:”).

²³ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: 1. A complete description of the weapon or weapon system to include: a list of all its parts, how it functions, what it does, the manning level required for its use, and whether it is self-propelled, mounted or attached to a platform, or portable.”).

²⁴ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 2. The concept or method of employment planned for the use of the weapon or weapon system. This should include detailed information from the final approved concept of operation or method of employment that describes exactly how the system will be used.”).

²⁵ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 3. Information regarding the ability of the weapon and or weapon system to be directed at a specific target (accuracy), including a comparison of the accuracy of the new weapon or weapon system to similar weapons or weapon systems (or munitions) that have already been acquired or developed and have received a legal review.”).

system's impact on the human body and on material objects²⁶ and any additional information or testing data and pertinent conclusions arising from tests of the weapon or weapon system.²⁷

Department of the Air Force

If requested, U.S. Air Force personnel are to provide certain information so that a judge advocate, or Air Force General Counsel for special access programs, may review weapons for legality.²⁸ Such information includes: (1) a general description of the weapon submitted for legal review; (2) statements of intended use or concepts of operation; and (3) the reasonably anticipated effects of the weapon's employment.²⁹

5. *What is the mandate of the authority in charge of the review?*

An attorney authorized to do so provides his or her legal opinion as to whether the acquisition of the particular weapon is consistent with international law.

DoD policy is to comply with international law, including in the acquisition of weapons. Thus, an acquisition of a weapon that would not be consistent with applicable international law would be inconsistent with DoD policy.

6. *How does the review mechanism reach decisions?*

DoD Directive 5000.01 requires that the acquisition of DoD weapons and weapon systems be consistent with all applicable domestic law and treaties and international agreements as well as

²⁶ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 4. Information regarding the impact of the weapon and or weapon system on the human body and on material objects.”).

²⁷ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 5. Any additional information or testing data and pertinent conclusions arising from these tests.”).

²⁸ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶2.1 (Jul. 27, 2011) (“Upon cognizant legal authority's request, Air Force personnel will provide the following information, so that a judge advocate, or General Counsel in the instance of a special access program, may complete the reviews required by this Instruction.”).

²⁹ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶2.1 (Jul. 27, 2011) (“Upon cognizant legal authority's request, Air Force personnel will provide the following information, so that a judge advocate, or General Counsel in the instance of a special access program, may complete the reviews required by this Instruction: 2.1.1. A general description of the weapon or cyber capability submitted for legal review. 2.1.2. Statements of intended use (such as types of targets) or concepts of operation. 2.1.3. The reasonably anticipated effects of employment, to include all tests, computer modelling, laboratory studies, and other technical analysis and results that contribute to the assessment of reasonably anticipated effects.”).

with customary international law and the law of war.³⁰ Past DoD directives and instructions also reflected this requirement.³¹ DoD Directive 2060.1 also requires that all DoD activities be fully compliant with arms control agreements of the United States.³²

For the Department of Defense, the initial focus of a legal review of the acquisition or procurement of a weapon is often on whether the weapon is illegal *per se*. A weapon may be illegal *per se* if a treaty to which the United States is a party or customary international law has prohibited its use in all circumstances.³³ For example, under Protocol (IV) on Blinding Laser Weapons, Annexed to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (CCW), Oct. 13, 1995, the use of “blinding laser” weapons, *i.e.*, lasers specifically designed to cause permanent blindness to unenhanced vision, is prohibited, regardless of how they are used.³⁴

Most weapons, however, are not illegal *per se*.³⁵ That is, their use may be lawful in some circumstances, although unlawful in other circumstances, such as if the weapons are used to attack combatants placed *hors de combat*.³⁶ Law of war issues related to targeting, however,

³⁰ DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.15 (May 12, 2003, certified current as of Nov. 20, 2007) (“The acquisition and procurement of DoD weapons and weapon systems shall be consistent with all applicable domestic law and treaties and international agreements (for arms control agreements, see DoD Directive 2060.1 (Reference (m)[)], customary international law, and the law of armed conflict (also known as the laws and customs of war).”).

³¹ See, e.g., DoD Directive 5000.01, *Defense Acquisition*, ¶D.2.j (Mar. 15, 1996, cancelled by DoD Directive 5000.1 (Oct. 23, 2000)) (“The Head of each DoD Component shall ensure that the Component’s General Counsel or Judge Advocate General, as appropriate, conducts a legal review of the intended acquisition of a potential weapon to determine that it is consistent with U.S. obligations.”); DoD Instruction 5500.15, *Review of Legality of Weapons Under International Law*, ¶IV.A (Oct. 16, 1974, cancelled by DoD Instruction 5000.2 (Feb. 23, 1991)) (“The Secretary of each Military Department will insure that a legal review by his Judge Advocate General is conducted of all weapons intended to meet a military requirement of his Department in order to ensure that their intended use in armed conflict is consistent with the obligations assumed by the United States under all applicable international laws including treaties to which the United States is a party and customary international law, in particular the laws of war.”).

³² DoD Directive 2060.1, *Implementation of, and Compliance with, Arms Control Agreements*, ¶3 (Jan. 9, 2001, certified current as of Nov. 24, 2003) (“It is DoD policy that . . . [a]ll DoD activities shall be fully compliant with arms control agreements of the U.S. Government.”).

³³ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) (“A weapon may be illegal *per se* if a treaty to which the United States is a Party or customary international law has prohibited its use in all circumstances.”).

³⁴ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) (“For example, the use of ‘blinding laser’ weapons is prohibited, regardless of how they are used.”).

³⁵ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) (“On the other hand, most weapons are not illegal *per se*.”).

³⁶ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) (“That is, their use may be lawful in some circumstances, although unlawful in others, such as if they are used to attack combatants placed *hors de combat*.”).

generally are not determinative of the lawfulness of a weapon.³⁷ For example, the issue of whether a weapon would be used consistent with the requirement that attacks may only be directed against military objectives might only be capable of determination when presented with the facts of a particular military operation. That said, weapons that are inherently indiscriminate are prohibited.³⁸ In addition, certain weapons, such as mines, are subject to specific rules on their use in order to reduce the risk of harm to the civilian population.³⁹

In general, three questions should be considered when reviewing the acquisition of a weapon for consistency with U.S. law of war obligations: (1) whether the weapon's intended use is calculated to cause superfluous injury; (2) whether the weapon is inherently indiscriminate; and (3) whether the weapon falls within a class of weapons that has been specifically prohibited.⁴⁰ If, after considering these three questions, the weapon is not prohibited, the review should also consider whether there are legal restrictions on the weapon's use that are specific to that weapon.⁴¹ Please refer to Chapter Six of the DoD Law of War Manual for a detailed discussion of these three questions and other rules related to weapons.

7. What kind of comments and recommendations is the weapon review authority empowered to make?

As noted above, an attorney authorized to do so provides his or her legal opinion as to whether the acquisition of the particular weapon is consistent with international law.

If it is determined during a legal review that the weapon is not prohibited, the attorney authorized to conduct the review should also consider whether there are legal restrictions on the weapon's

³⁷ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) ("Law of war issues related to targeting (*e.g.*, the requirement that an attack may only be directed against a military objective) generally are not determinative of the lawfulness of a weapon.").

³⁸ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) ("However, weapons that are inherently indiscriminate are prohibited.").

³⁹ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) ("In addition, certain weapons, such as mines, are subject to specific rules on their use in order to reduce the risk of harm to the civilian population.").

⁴⁰ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) ("The review of the acquisition or procurement of a weapon for consistency with U.S. law of war obligations should consider three questions to determine whether the weapon's acquisition or procurement is prohibited: whether the weapon's intended use is calculated to cause superfluous injury; whether the weapon is inherently indiscriminate; and whether the weapon falls within a class of weapons that has been specifically prohibited.").

⁴¹ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) ("If the weapon is not prohibited, the review should also consider whether there are legal restrictions on the weapon's use that are specific to that type of weapon.").

use that are specific to that type of weapon.⁴² If any specific restrictions apply, then the weapon’s intended concept of employment should be reviewed for consistency with those restrictions.⁴³ The advice that is offered as part of the review of the weapon could be useful because, when authorizing or using such weapon, the responsible commander and weapon system operator is required to use such a weapon consistent with any applicable prohibitions and restrictions in the law of war.

The attorney who reviewed the legality of the weapon also may find it appropriate to advise whether other measures should be taken that would assist in ensuring compliance with law of war obligations related to the type of weapon being acquired or procured.⁴⁴ For example, it may be appropriate to advise on the need for training programs and other practical measures, such as promulgating doctrine or rules of engagement related to the type of weapon.⁴⁵

8. May the review authority attach conditions to its approval of a new weapon?

In general, the attorney authorized to review the legality of the acquisition of the weapon would not be in a position, himself or herself acting alone, to attach conditions or restrictions on the use of the weapon, such as by issuing rules of engagement, standard operating procedures, or instructions. As noted above, however, the attorney who reviewed the legality of the weapon, however, may find it appropriate to advise whether other measures should be taken that would assist in ensuring compliance with law of war obligations related to the type of weapon being acquired or procured.⁴⁶ For example, it may be appropriate to advise on the need for training programs and other practical measures, such as promulgating doctrine or rules of engagement related to the type of weapon.⁴⁷

⁴² DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“If the weapon is not prohibited, the review should also consider whether there are legal restrictions on the weapon’s use that are specific to that type of weapon.”).

⁴³ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“If any specific restrictions apply, then the intended concept of employment of the weapon should be reviewed for consistency with those restrictions.”).

⁴⁴ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“Lastly, it may be appropriate to advise whether other measures should be taken that would assist in ensuring compliance with law of war obligations related to the type of weapon being acquired or procured.”).

⁴⁵ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“For example, it may be appropriate to advise on the need for training programs and other practical measures, such as promulgating doctrine and rules of engagement related to that type of weapon.”).

⁴⁶ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“Lastly, it may be appropriate to advise whether other measures should be taken that would assist in ensuring compliance with law of war obligations related to the type of weapon being acquired or procured.”).

⁴⁷ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“For example, it may be appropriate to advise on

Rules of engagement, standard operating procedures, and instructions are developed and issued through DoD procedures other than the procedures used to review the legality of weapons. Even though, as noted above, such rules, standard operating procedures, and instructions can help assist in ensuring law of war compliance, they generally are not developed because they are legally required and are typically developed for reasons other than legal considerations. Also, even though legal advice would often be given to ensure such rules, procedures, and instructions would be consistent with the law of war obligations of the United States, such legal advice might be given by attorneys other than the attorney who reviewed the legality of the weapon.

Additionally, such rules, procedures, and instructions are typically not tied to specific models of weapons that DoD may be acquiring, but are often generally applicable to an entire class of weapons. For example, DoD and its components have developed doctrine and regulations related to the use of mines.⁴⁸ Also, for example, some DoD components have issued instructions prescribing minimum requirements for individual small arms training and qualification.⁴⁹

Nevertheless, as noted above, if it is determined during a legal review that the weapon is not prohibited, the attorney authorized to conduct the review should also consider whether there are legal restrictions on the weapon's use that are specific to that type of weapon.⁵⁰ If any specific restrictions apply, then the weapon's intended concept of employment should be reviewed for consistency with those restrictions.⁵¹ The advice that is offered as part of the review of the weapon could be useful because, when authorizing or using such weapon, the responsible commander and weapon system operator is required to use such a weapon consistent with any applicable prohibitions and restrictions in the law of war.

the need for training programs and other practical measures, such as promulgating doctrine and rules of engagement related to that type of weapon.”).

⁴⁸ See, e.g., Joint Publication 3-15, *Barriers, Obstacles, and Mine Warfare for Joint Operations*, page i (June 17, 2011) (“This publication provides doctrinal guidance for planning and executing barrier, obstacle, and mine warfare for joint operations as they relate to strategic, operational, and tactical mobility and countermobility across the range of military operations.”); Field Manual 20-32, Department of the Army, *Mine/Countermining Operations*, page xvii (May 29, 1998, with change 4 of Feb. 2, 2004) (“Field Manual (FM) 20-32 provides United States (US) armed forces with tactical, technical, and procedural guidance for conducting mine and countermining operations.”), Field Manual 3-34, Department of the Army, *Engineer Operations*, page iii (Apr. 2, 2014) (“FM 3-34 is the Army doctrine publication that presents the overarching doctrinal guidance and direction for conducting engineer activities and shows how it contributes to decisive action.”).

⁴⁹ Office of the Chief of Naval Operations Instruction 3591.1F, *Small Arms Training and Qualification*, ¶1 (Aug. 12, 2009) (“Purpose. To establish Navy policy and prescribe minimum requirements for individual small arms training and qualification per references (a) through (s).”).

⁵⁰ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“If the weapon is not prohibited, the review should also consider whether there are legal restrictions on the weapon's use that are specific to that type of weapon.”).

⁵¹ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“If any specific restrictions apply, then the intended concept of employment of the weapon should be reviewed for consistency with those restrictions.”).

9. *Is the reviewing authority's decision binding?*

As noted above, an attorney authorized to do so provides his or her legal opinion as to whether the acquisition of the particular weapon is consistent with international law.

DoD policy is to comply with international law, including in the acquisition of weapons. Thus, an acquisition of a weapon that would not be consistent with applicable international law would be inconsistent with DoD policy.

10. *Is the reviewing authority's decision final or can it be subject to appeal or review?*

As noted above, an attorney authorized to do so provides his or her legal opinion as to whether the acquisition of the particular weapon is consistent with international law.

DoD policy is to comply with international law, including in the acquisition of weapons. Thus, an acquisition of a weapon that would not be consistent with applicable international law would be inconsistent with DoD policy.

11. *Is there a record of the decisions? And to whom and under what conditions should these records be accessible?*

U.S. Government records are kept according to specific rules, and access is provided to such records under the conditions provided for in those rules.

DoD components have issued guidance on how to handle their records related to the review of weapons. For example, within the Department of the Army, the Judge Advocate of the Army is responsible for maintaining a permanent file of legal opinions related to the review of weapons.⁵² Within the Department of the Navy, the Judge Advocate General of the Navy is responsible for maintaining a permanent file of legal opinions related to the review of weapons.⁵³ Within the Department of the Air Force, legal opinions related to the review of weapons are maintained and disposed of in accordance with standard Air Force records management procedures.⁵⁴

Generally, records may be accessed by the office that generated those records. In practice, however, DoD attorneys often share legal reviews of weapons with attorneys in other DoD

⁵² Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶5e (Jan. 1, 1979) (“*The Judge Advocate General*. TJAG— . . . (2) Maintains a permanent file of the opinions rendered in implementation of DOD Instruction 5500.15 and this regulation.”).

⁵³ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1b (Sept. 1, 2011) (“The JAG shall maintain a permanent file of all opinions issued under this instruction. “).

⁵⁴ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, page 1 (Jul. 27, 2011) (“Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>.”).

components who are also authorized to review weapons and who may have occasion to review similar types of weapons. In practice, DoD attorneys often seek the concurrence in their legal opinions on weapons by lawyers in other DoD legal offices. That official coordination and concurrence, however, does not negate the DoD policy requirement for those other DoD components to obtain an individualized legal review should that DoD component decide to acquire that same weapon system.

Records of legal advice are generally not made public as legal advice is generally given on a confidential basis and is given as part of a deliberative government process. Such records are generally protected from disclosure under U.S. law. Also, the legal review of weapons may involve trade secrets or commercial information that is confidential or privileged. Such information is also generally protected from disclosure under U.S. law. Last, legal reviews of weapons may involve information that is classified under provisions of U.S. law and regulations to protect national security.

Scope of application

12. *How are the terms 'weapon' 'means' and 'method of warfare' defined?*

A variety of definitions of “weapons” and “weapon systems” are employed for the purpose of determining whether a legal review is required. For example, within the Department of the Army, weapons subject to review include “all conventional arms, munitions, materiel, instruments, mechanisms, or devices which have an intended effect of injuring, destroying, or disabling enemy personnel, materiel, or property.”⁵⁵ A weapons system is defined as “[t]he weapon itself and those components required for its operation, but is limited to those components having a direct injuring or damaging effect on individuals or property (including all munitions such as projectiles, small arms, mines, explosives, and all other devices that are physically destructive or injury producing).”⁵⁶

Within the Department of the Navy, weapons and weapon systems subject to review include “all arms, munitions, materiel, instruments, mechanisms, devices, and those components required for their operation, that are intended to have an effect of injuring, damaging, destroying, or disabling

⁵⁵ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶3 (Jan. 1, 1979) (“As used in this regulation, the following explanation of terms applies. . . . a. *Weapons*. Chemical weapons and all conventional arms, munitions, materiel, instruments, mechanisms, or devices which have an intended effect of injuring, destroying, or disabling enemy personnel, materiel, or property.”).

⁵⁶ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶3 (Jan. 1, 1979) (“As used in this regulation, the following explanation of terms applies. . . . b. *Weapons systems*. The weapon itself and those components required for its operation, but is limited to those components having a direct injuring or damaging effect on individuals or property (including all munitions as projectiles, small arms, mines, explosives, and all other devices that are physically destructive or injury producing.”).

personnel or property, to include non-lethal weapons.”⁵⁷ However, “weapons do not include launch or delivery platforms, such as . . . ships and aircraft.”⁵⁸

Within the Department of the Air Force, weapons subject to review include “devices designed to kill, injure, disable or temporarily incapacitate people, or destroy, damage or temporarily incapacitate property or materiel.”⁵⁹ Weapons, however, “do not include devices developed and used for training, or launch platforms to include aircraft and intercontinental ballistic missiles.”⁶⁰

DoD policy also requires the review of non-lethal weapons.⁶¹ Under DoD policy, non-lethal weapons are defined as “[w]eapons, devices, and munitions that are explicitly designed and primarily employed to incapacitate targeted personnel or materiel immediately, while minimizing fatalities, permanent injury to personnel, and undesired damage to property in the target area or environment.”⁶² Non-lethal weapons are intended to have reversible effects on personnel and materiel.⁶³

⁵⁷ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1c (Sept. 1, 2011) (“Weapons or weapon systems for the purpose of the legal review of this paragraph are defined as all arms, munitions, materiel, instruments, mechanisms, devices, and those components required for their operation, that are intended to have an effect of injuring, damaging, destroying, or disabling personnel or property, to include non-lethal weapons.”).

⁵⁸ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1c (Sept. 1, 2011) (“For purpose of the legal review described in this paragraph, weapons do not include launch or delivery platforms, such as, but not limited to, ships or aircraft, but rather the weapons or weapon systems contained on those platforms.”).

⁵⁹ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, page 6 (Jul. 27, 2011) (“Weapons are devices designed to kill, injure, disable or temporarily incapacitate people, or destroy, damage or temporarily incapacitate property or materiel.”).

⁶⁰ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, page 6 (Jul. 27, 2011) (“Weapons do not include devices developed and used for training, or launch platforms to include aircraft and intercontinental ballistic missiles.”).

⁶¹ DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶4 (Apr. 25, 2013) (“The GC, DoD ensures the review of the legality of NLW as provided in DoDDs 5145.01, 5000.01, and 2311.01E (References (g), (h), and (i)).”); encl. 2, ¶11 (“The Secretaries of the Military Departments and the Commander, USSOCOM, through the CJCS: . . . [r]equire, as appropriate, that a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with DoDD 2060.1 (Reference (1)).”); encl. 2, ¶13 (“In his or her capacity as the DoD EA for NLW, the CMC: . . . [e]nsures a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with Reference (1)).”).

⁶² DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, page 12 (Apr. 25, 2013) (“NLW. Weapons, devices, and munitions that are explicitly designed and primarily employed to incapacitate targeted personnel or materiel immediately, while minimizing fatalities, permanent injury to personnel, and undesired damage to property in the target area or environment.”).

⁶³ DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, page 12 (Apr. 25, 2013) (“NLW are intended to have reversible effects on personnel and materiel.”).

Although not providing a definition of “means and methods of warfare,” section 5.1.1 of the DoD Law of War Manual provides information that may be relevant to interpretations of the phrase “means and methods of warfare.”

13. What types of weapons are subject to review? What types of weapons are not subject to review and if so why?

DoD components conduct legal reviews of the acquisition or procurement of all types of “weapons,” relying on the definitions noted in the response to preceding question. Ammunition has been included in the legal review of proposed weapons and weapons systems for many years. For example, during World War I, the Office of the Judge Advocate General of the Army opined that then-newly designed armor-piercing ammunition was a lawful weapon.⁶⁴

14. Are means and methods of warfare covered by the review mechanism? Does that include military doctrine?

As noted above, DoD policy does not establish a requirement to review the lawfulness of new methods of warfare as such, but in practice, such review is conducted when appropriate. DoD policy does not impose a specific requirement to review the legality of military doctrine. However, in practice, such review may be conducted as part of advice to the writers of military doctrine.

15. Are weapons reviews conducted from the sole perspective of IHL, or do they also take into consideration e.g. human rights law, disarmament law and international discussions on means or methods of warfare that might be regulated in the future?

DoD policy provides for the consideration of all applicable international law.⁶⁵ Generally, international human rights law would not be considered in the review process.

However, in certain cases when assessing the legality of a weapon under customary international law, it may be relevant to consider the fact that the weapon is widely used by law enforcement agencies. Such a fact would support the conclusion that States generally regard that such weapons can be used consistent with their international human rights obligations, and such consistency would also imply that the weapon would be consistent with the customary law of war. For example, a 2013 DoD analysis of bullets that expand or flatten easily in the human

⁶⁴ U.S. Army Ordnance, 1917-1919, No. 1940, *History of Small-Arms Ammunition* 15 (1920) (“The Judge Advocate General’s Office has given the opinion that the armor-piercing ammunition is a lawful weapon, but pilots hesitate to use it on account of fear of the action of the Germans in case of capture. No ruling as to the issuance of this ammunition has been received from the General Staff.”).

⁶⁵ See DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.15 (May 12, 2003, certified current as of Nov. 20, 2007) (“The acquisition and procurement of DoD weapons and weapon systems shall be consistent with all applicable domestic law and treaties and international agreements (for arms control agreements, see DoD Directive 2060.1 (Reference (m))), customary international law, and the law of armed conflict (also known as the laws and customs of war).”).

body considered that expanding bullets were widely used by law enforcement agencies as a fact that supported the conclusion that States do not regard such bullets to be inherently inhumane or needlessly cruel.⁶⁶

16. Are the targeting rules considered in the review process? Is the Martens Clause considered in the weapon review process? Does the review authority include a gender perspective in its evaluation of the weapon's effects?

As mentioned in the response to the previous question, law of war issues related to targeting (e.g., the requirement that attacks may only be directed against military objectives) generally are not determinative of the lawfulness of a weapon.⁶⁷ For example, the Department of the Air Force's instruction on the legal review of weapons notes that legal issues associated with the use of weapons are beyond the scope of such reviews.⁶⁸

Even though law of war issues related to targeting are generally not determinative of the lawfulness of a weapon, issues of proportionality and discrimination in conducting attacks would be considered during legal review because a weapon that, when used, would necessarily violate these principles would be inherently indiscriminate and therefore prohibited.⁶⁹

Law of war principles and rules related to targeting would also be considered if a specific concept of employment is provided. The intended concept of employment of the weapon should generally be reviewed for consistency with targeting rules as well as any other specific restrictions that might be applicable to the use of the weapon.⁷⁰

⁶⁶ See DoD Law of War Manual, § 6.5.4.4 (Expanding Bullets) (June 2015, Updated Dec. 2016) ("In 2013, a review conducted by DoD in coordination with the Department of State reconfirmed that the prohibition in the 1899 Declaration on Expanding Bullets did not reflect customary international law. The findings of this review were consistent with the longstanding position of the United States not to become Party to the 1899 Declaration and not to apply a distinct prohibition against expanding bullets, but instead to regard expanding bullets as prohibited only to the extent such bullets are calculated to cause unnecessary suffering. . . . In addition, expanding bullets are widely used by law enforcement agencies today, which also supports the conclusion that States do not regard such bullets are inherently inhumane or needlessly cruel.").

⁶⁷ DoD Law of War Manual, § 6.1.1 (Legality of the Weapon Itself (Per Se) Distinguished From the Legality of the Use of the Weapons) (June 2015, Updated Dec. 2016) ("Law of war issues related to targeting (e.g., the requirement that an attack may only be directed against a military objective) generally are not determinative of the lawfulness of a weapon.").

⁶⁸ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶3.3 (Jul. 27, 2011) ("Legal issues associated with employment are beyond the scope of a weapon or cyber capability review. As part of a targeting analysis, the unit or individual employing the weapon or cyber capability must ensure that their actions comply with domestic and international law, including LOAC.").

⁶⁹ DoD Law of War Manual, § 6.7.1 (Inherently Indiscriminate Weapons – Principles of Distinction and Proportionality) (June 2015, Updated Dec. 2016) ("The prohibition against inherently indiscriminate weapons results from the principles of distinction and proportionality. Attacks must be conducted in accordance with the principles of distinction and proportionality. Consequently, a weapon that, when used, would necessarily violate these rules, would be prohibited.").

⁷⁰ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) ("If the weapon is not prohibited, the review should

For example, if the intended concept of employment of a booby-trap or an “other device” indicated that it might be used in any way attached to or associated with an object clearly of a religious nature (contrary to the prohibition in Article 7 of the Protocol (II) on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, as Amended on May 3, 1996, Annexed to the CCW), the attorney reviewing such a weapon would advise on the need for measures, such as training or standard operating procedures, in order to help ensure that the weapon is not used unlawfully.⁷¹ Similarly, if the concept of employment of a laser weapon omitted mention of feasible precautions to avoid the incidence of permanent blindness to unenhanced vision (contrary to the obligation in Article 2 of Protocol (IV) on Blinding Laser Weapons, Annexed to the CCW, Oct. 13, 1995), the attorney reviewing such a weapon would advise on the need for precautions, such as training or other practical measures, in order to avoid the incidence of permanent blindness to unenhanced vision.⁷²

The Martens clause confirms the effectiveness and applicability of customary principles and rules of the law of war, rather than having an independent legal effect in the sense of operating to restrict or prohibit conduct under international law.

The Martens clause reflects the idea that the lack of a specific treaty rule protecting a person during armed conflict does not mean that no international law confers protection. Rather, in such circumstances, principles of customary international law resulting from State practice performed out of a sense of legal obligation would continue to apply. The Martens clause also reflects the closely related idea that when no specific law of war rule applies, the principles of the law of war form the general guide for conduct during war.⁷³

The principles of the law of war are considered during the legal review of weapons. For example, the prohibition on weapons that are calculated to cause superfluous injury is an

also consider whether there are legal restrictions on the weapon’s use that are specific to that type of weapon. If any specific restrictions apply, then the intended concept of employment of the weapon should be reviewed for consistency with those restriction.”).

⁷¹ DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“Lastly, it may be appropriate to advise whether other measures should be taken that would assist in ensuring compliance with law of war obligations related to the type of weapon being acquired or procured. For example, it may be appropriate to advise on the need for training programs and other practical measures, such as promulgating doctrine and rules of engagement related to that type of weapon.”).

⁷² DoD Law of War Manual, § 6.2.2 (Questions Considered in the Legal Review of Weapons for Consistency With U.S. Law of War Obligations) (June 2015, Updated Dec. 2016) (“Lastly, it may be appropriate to advise whether other measures should be taken that would assist in ensuring compliance with law of war obligations related to the type of weapon being acquired or procured. For example, it may be appropriate to advise on the need for training programs and other practical measures, such as promulgating doctrine and rules of engagement related to that type of weapon.”).

⁷³ DoD Law of War Manual, § 19.8.3 (Martens Clause) (June 2015, Updated Dec. 2016) (“The Martens clause reflects the idea that when no specific rule applies, the principles of the law of war form the general guide for conduct during war.”).

application of the principle of humanity in the context of weapons.⁷⁴ The superfluous injury rule prohibits weapons that are designed to increase the injury or suffering of the persons attacked beyond that justified by military necessity.⁷⁵

Additionally, the prohibition on inherently indiscriminate weapons results from the principles of distinction and proportionality.⁷⁶ Attacks must be conducted in accordance with the principles of distinction and proportionality.⁷⁷ Consequently, a weapon that, when used, would necessarily violate these rules, would be prohibited.⁷⁸ Inherently indiscriminate weapons include those that are specifically designed to be used to conduct attacks against the civilian population, including attacks to terrorize the civilian population, such as Japanese bombs attached to free-floating, long-range balloons used during World War II.⁷⁹ Indiscriminate weapons also include weapons whose anticipated incidental effects are necessarily excessive compared to the military advantage expected to be gained from using the weapon, such as “blind” or essentially random weapons that are incapable of being controlled, and thus, cannot, with any degree of certainty, be directed against a military objective.⁸⁰

⁷⁴ DoD Law of War Manual, § 6.6.2 (Superfluous Injury Rule – the Principle of Humanity) (June 2015, Updated Dec. 2016) (“The superfluous injury rule is an application of the principle of humanity in the context of weapons.”).

⁷⁵ DoD Law of War Manual, § 6.6.2 (Superfluous Injury Rule – the Principle of Humanity) (June 2015, Updated Dec. 2016) (“The superfluous injury rule prohibits weapons that are designed to increase the injury or suffering of the persons attacked beyond that justified by military necessity.”).

⁷⁶ DoD Law of War Manual, § 6.7.1 (Inherently Indiscriminate Weapons – Principles of Distinction and Proportionality) (June 2015, Updated Dec. 2016) (“The prohibition against inherently indiscriminate weapons results from the principles of distinction and proportionality.”).

⁷⁷ DoD Law of War Manual, § 6.7.1 (Inherently Indiscriminate Weapons – Principles of Distinction and Proportionality) (June 2015, Updated Dec. 2016) (“Attacks must be conducted in accordance with the principles of distinction and proportionality.”).

⁷⁸ DoD Law of War Manual, § 6.7.1 (Inherently Indiscriminate Weapons – Principles of Distinction and Proportionality) (June 2015, Updated Dec. 2016) (“Consequently, a weapon that, when used, would necessarily violate these rules, would be prohibited.”).

⁷⁹ DoD Law of War Manual, § 6.7.1 (Inherently Indiscriminate Weapons – Principles of Distinction and Proportionality) (June 2015, Updated Dec. 2016) (“Inherently indiscriminate weapons include those that are specifically designed to be used to conduct attacks against the civilian population, including attacks to terrorize the civilian population. For example, Japanese bombs attached to free-floating, long-range balloons used during World War II were unlawful for this reason.”).

⁸⁰ DoD Law of War Manual, § 6.7.1 (Inherently Indiscriminate Weapons – Principles of Distinction and Proportionality) (June 2015, Updated Dec. 2016) (“Indiscriminate weapons also include weapons whose anticipated incidental effects are necessarily excessive compared to the military advantage expected to be gained from using the weapon. . . . Weapons that necessarily cause excessive incidental harm include ‘blind’ or essentially random weapons that are incapable of being controlled, and thus, cannot, with any degree of certainty be directed against a military objective.”).

17. *Does the mechanism take into consideration any specific or policy guidelines related to specific types of platforms or types of weapons (e.g. cyber-technologies, autonomous weapons)?*

DoD has policies specific to different types of weapon systems. Where appropriate, attorneys have advised on U.S. and DoD policies related to weapons. For example, a legal review of an anti-personnel mine system could advise on its consistency with U.S. and DoD policies related to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (Ottawa Convention), even though the United States is not party to the Ottawa Convention.

These weapon-specific policies are periodically adapted by policy-makers to changing circumstances. The requirements reflected in these policies generally are not imposed because of the requirements of international law. Such policies include:

a. Policies relating to non-lethal weapons

DoD Directive 3000.03E sets forth DoD policy for non-lethal weapons as well as the responsibilities for management of DoD's non-lethal weapons program.⁸¹ DoD Directive 3000.03E applies to a wide variety of DoD non-lethal weapons-related activities,⁸² but does not apply to information operations, cyber operations, or any other military capability not explicitly designed and primarily employed to incapacitate personnel or materiel immediately⁸³ and a range of electronic warfare capabilities.⁸⁴ DoD Directive 3000.03E references the requirement to review the legality of non-lethal weapons.⁸⁵

⁸¹ DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶1 (Apr. 25, 2013) (“This directive . . . [r]eissues DoD Directive (DoDD) 3000.3 (Reference (a)) to update the authority, established policy, and assigned responsibilities for the management of the DoD NLW program.”).

⁸² DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶2 (Apr. 25, 2013) (“This directive: a. Applies to: . . . (2) All NLW science and technology, development, test and evaluation, assessment of military utility, acquisition programs, operations and sustainment, and the employment of fielded NLW.”); DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶2 (Apr. 25, 2013) (“This directive: a. Applies to: . . . (3) NLW that are explicitly designed and primarily employed to incapacitate personnel or materiel immediately, while minimizing fatalities, permanent injury to personnel, and undesired damage to property, facilities, materiel, and the environment.”).

⁸³ DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶2 (Apr. 25, 2013) (“This directive: . . . b. Does not apply to: (1) Information operations, cyber operations, or any other military capability not explicitly designed and primarily employed to incapacitate personnel or materiel immediately, while minimizing fatalities, permanent injury, and undesirable damage to property, facilities, materiel, and the environment, even though they may have these effects to some extent.”).

⁸⁴ DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶2 (Apr. 25, 2013) (“This directive: . . . b. Does not apply to: . . . (2) Specific electronic warfare (EW) capabilities of electro-optical-infrared and radio-frequency countermeasures; electro-magnetic (EM) compatibility and deception; EM hardening, interference, intrusion, and jamming; electronic masking, probing, reconnaissance, and intelligence; electronics security; EW reprogramming; emission control; spectrum management; and wartime reserve modes, as described in Joint Publication 3-13.1 (Reference (d)).”).

⁸⁵ DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, ¶4 (Apr. 25, 2013) (“The GC, DoD ensures the review of the legality of NLW as provided in DoDDs 5145.01, 5000.01, and

DoD Instruction 3200.19 establishes policy, assigns responsibilities, and provides procedures for a human effects characterization process in support of the development of non-lethal weapons, non-lethal technologies, and non-lethal weapon systems.⁸⁶ DoD Instruction 3200.19 requires a characterization of the human effects of non-lethal weapons during the materiel development process to assess the likelihood of achieving the desired effects and to identify the risk of significant injury for counter-personnel non-lethal weapon systems, as well as the risk of significant injury from collateral damage to humans from counter-materiel non-lethal weapon systems.⁸⁷

b. Policies relating to autonomy in weapon systems

U.S. policy on addressing civilian casualties in U.S. operations involving the use of force, directs relevant U.S. departments and agencies to develop, acquire, and field weapon systems and other technological capabilities that further enable the discriminate use of force in different operational context.⁸⁸ There are examples in which the use of autonomy in weapon systems has helped improve DoD's implementation of the law of war and has reduced civilian casualties caused incidentally by military operations. For example, autonomous functions allow missiles or bombs to be guided precisely toward military objectives, and their employment often greatly reduces the likelihood of inadvertently striking civilian objects as compared to the use of unguided missiles or bombs. Similarly, autonomous functions allow defensive weapon systems to select and engage incoming enemy projectiles, such as mortars and rockets. These weapon systems can remove an immediate need to employ counter-battery fire, and give commanders more time to take actions to reduce the risk to civilians when responding to such threats. It is expected that further developments in autonomous and semi-autonomous weapon systems will allow U.S. forces to apply force even more precisely and with less collateral damage than would be possible with existing systems.

2311.01E (References (g), (h), and (i).”); encl. 2, ¶11 (“The Secretaries of the Military Departments and the Commander, USSOCOM, through the CJCS: . . . [r]equire, as appropriate, that a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with DoDD 2060.1 (Reference (I).”); encl. 2, ¶13 (“In his or her capacity as the DoD EA for NLW, the CMC: . . . [e]nsures a legal review of the acquisition of all NLW is conducted in accordance with Reference (h) and an arms control compliance review is completed in accordance with Reference (I).”).

⁸⁶ DoD Instruction 3200.19, *Non-Lethal Weapons (NLW) Human Effects Characterization*, ¶1 (May 17, 2012) (“In accordance with the authority in DoD Directive (DoDD) 5134.01 (Reference (a)), this Instruction: a. Establishes policy, assigns responsibilities, and provides procedures for human effects characterization process in support of the development of NLW, non-lethal technologies, and NLW systems.”).

⁸⁷ DoD Instruction 3200.19, *Non-Lethal Weapons (NLW) Human Effects Characterization*, ¶4b (May 17, 2012) (“Characterization of the human effects of [non-lethal weapons] shall be conducted during the materiel development process to assess the likelihood of achieving the desired effect(s) and identify [risk of significant injury] for counter-personnel systems, as well as [risk of significant injury] for collateral damage to humans from counter-materiel systems.”).

⁸⁸ Executive Order 13732, *United States Policy on Pre- and Post-Strike Measures To Address Civilian Casualties in U.S. Operations Involving the Use of Force*, section 2(a) (July 1, 2016) (“In particular, relevant agencies shall, consistent with mission objectives and applicable law, including the law of armed conflict . . . develop, acquire, and field weapon systems and other technological capabilities that further enable the discriminate use of force in different operational context;”).

Within the Department of Defense, DoD Directive 3000.09 sets forth DoD policy and assigns responsibilities for the development and use of autonomous and semi-autonomous functions in weapon systems, including manned and unmanned platforms.⁸⁹ DoD Directive 3000.09 establishes guidelines designed to minimize the probability and consequences of failures in autonomous and semi-autonomous weapon systems that could lead to unintended engagements.⁹⁰ For the purposes of DoD Directive 3000.09, autonomous weapon systems include weapon systems that, once activated, can select and engage targets without further intervention by a human operator. This includes human-supervised autonomous weapon systems that are designed to allow human operators to override operation of the weapon system, but can select and engage targets without further human input after activation.⁹¹

It is DoD policy that autonomous and semi-autonomous weapon systems are to be designed to allow commanders and operators to exercise appropriate levels of human judgment over the use of force.⁹² It is DoD policy that persons who authorize the use of, direct the use of, or operate autonomous and semi-autonomous weapon systems are to do so with appropriate care and in accordance with the law of war, applicable treaties, weapon system safety rules, and applicable rules of engagement.⁹³

The acquisition of all autonomous weapon systems and semi-autonomous weapon systems is subject to a legal review, pursuant to DoD Directive 5000.01.⁹⁴ Certain autonomous weapon

⁸⁹ DoD Directive 3000.09, *Autonomy in Weapon Systems*, ¶1 (Apr. 25, 2013) (“This Directive: a. Establishes DoD policy and assigns responsibilities for the development and use of autonomous and semi-autonomous functions in weapon systems, including manned and unmanned platforms.”).

⁹⁰ DoD Directive 3000.09, *Autonomy in Weapon Systems*, ¶1 (Apr. 25, 2013) (“This Directive: b. Establishes guidelines designed to minimize the probability and consequences of failures in autonomous and semi-autonomous weapon systems that could lead to unintended engagements.”).

⁹¹ DoD Directive 3000.09, *Autonomy in Weapon Systems*, Glossary, pages 13-14 (Apr. 25, 2013) (“autonomous weapon system. A weapon system that, once activated, can select and engage targets without further intervention by a human operator. This includes human-supervised autonomous weapon systems that are designed to allow human operators to override operation of the weapon system, but can select and engage targets without further human input after activation.”).

⁹² DoD Directive 3000.09, *Autonomy in Weapon Systems*, ¶4a (Apr. 25, 2013) (“Autonomous and semi-autonomous weapon systems shall be designed to allow commanders and operators to exercise appropriate levels of human judgment over the use of force.”).

⁹³ DoD Directive 3000.09, *Autonomy in Weapon Systems*, ¶4b (Apr. 25, 2013) (“Persons who authorize the use of, direct the use of, or operate autonomous and semi-autonomous weapon systems must do so with appropriate care and in accordance with the law of war, applicable treaties, weapon system safety rules, and applicable rules of engagement (ROE).”).

⁹⁴ DoD Directive 3000.09, *Autonomy in Weapon Systems*, ¶4c (Apr. 25, 2013) (“Autonomous and semi-autonomous weapon systems intended to be used in a manner that falls within the policies in subparagraphs 4.c.(1) through 4.c.(3) will be considered for approval in accordance with the approval procedures in DoD Directive 5000.01 (Reference (b)), DoD Instruction 5000.02 (Reference (c)), and other applicable policies and issuances.”); DoD Directive 3000.09, *Autonomy in Weapon Systems*, encl. 4, ¶8 (Apr. 25, 2013) (“The Secretaries of the Military Departments; the Commander, USSOCOM; and the Heads of the Defense Agencies and DoD Field Activities shall . . . b. Ensure that legal reviews of autonomous and semi-autonomous weapon systems are conducted in accordance with References (b), (c), (g) and, where applicable, Reference (d). Legal reviews should ensure consistency with all applicable domestic and international law and, in particular, the law of war.”).

systems and semi-autonomous weapon systems require an additional policy review under DoD Directive 3000.09. Such autonomous weapon systems and semi-autonomous weapon systems are to be reviewed and approved by the Under Secretary of Defense for Policy, the Under Secretary of Defense for Acquisition, Technology, and Logistics, and the Chairman of the Joint Chiefs of Staff before formal development and again before fielding.⁹⁵ These reviews and approvals by the Under Secretary of Defense for Policy, the Under Secretary of Defense for Acquisition, Technology, and Logistics, and the Chairman of the Joint Chiefs of Staff are policy reviews and not required by international law. As part of that policy review, those types of systems receive a corresponding preliminary legal review before a decision is made to enter into formal development⁹⁶ and a corresponding later legal review before a decision is made to field such systems.⁹⁷

c. Policies relating to cluster munitions

Since 2001, it has been DoD policy to reduce overall unexploded ordnance through a process of improvement in submunition system reliability with a view towards fielding future submunitions with a 99 percent or higher functioning rate.⁹⁸ In 2008, the Secretary of Defense established DoD policy regarding cluster munitions and expanded on the 2001 policy.⁹⁹ For the purpose of DoD policy, cluster munitions are defined as munitions composed of a non-reusable canister or deliver body containing multiple, conventional explosive submunitions.¹⁰⁰ DoD policy

⁹⁵ DoD Directive 3000.09, *Autonomy in Weapon Systems*, encl. 3, ¶1 (Apr. 25, 2013) (“Autonomous or semi-autonomous weapon systems intended to be used in a manner that falls outside the policies in subparagraphs 4.c.(1) through 4.c.(3) above the signature of this Directive must be approved by the USD(P), USD(AT&L), and CJCS before formal development and again before fielding.”).

⁹⁶ DoD Directive 3000.09, *Autonomy in Weapon Systems*, encl. 3, ¶1a (Apr. 25, 2013) (“Before a decision to enter into formal development, the USD(P), USD(AT&L), and CJCS shall ensure . . . (5) A preliminary legal review of the weapon system has been completed, in coordination with the General Counsel of the Department of Defense (GC, DoD) and in accordance with References (b) and (c), DoD Directive 2311.01E (Reference (g)), and, where applicable, Reference (d).”).

⁹⁷ DoD Directive 3000.09, *Autonomy in Weapon Systems*, encl. 3, ¶1b (Apr. 25, 2013) (“Before fielding, the USD(P), USD(AT&L), and CJCS shall ensure . . . (6) A legal review of the weapon system has been completed, in coordination with the GC, DoD, and in accordance with References (b), (c), and (g), and, where applicable, Referenced (d).”).

⁹⁸ Department of Defense, Office of the Secretary of Defense, *DoD Policy on Submunition Reliability (U)*, page 1 (Jan. 10, 2001) (“It is the policy of the DoD to reduce overall UXO through a process of improvement in submunition system reliability—the desire is to field future submunitions with a 99% or higher functioning rate.”).

⁹⁹ Department of Defense, Office of the Secretary of Defense, *DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, page 1 (June 19, 2008) (“The following establishes the Department’s policy regarding cluster munitions and expands the previous policy, established by Secretary Cohen on January 10, 2001, on submunitions reliability for new types of cluster munitions.”).

¹⁰⁰ Department of Defense, Office of the Secretary of Defense, *DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, page 1 (June 19, 2008) (“For the purposes of this policy, cluster munitions are defined as munitions composed of a non-reusable canister or delivery body containing multiple, conventional explosive submunitions. Excluded from the definition are nuclear, chemical, and biological weapons as well as obscurants, pyrotechnics, non-lethal systems (e.g., leaflets), non-explosive kinetic effect submunitions (e.g., flechettes or rods), or electronic effects.”).

regarding cluster munitions does not apply to landmines, even if the landmines are delivered in a non-reusable canister or deliver body.¹⁰¹

DoD policy acknowledges that cluster munitions are legitimate weapons that provide distinct advantages against a range of targets and can result in less collateral damage than unitary weapons.¹⁰² DoD policy nonetheless recognizes the need to minimize the unintended harm to civilians and civilian infrastructure associated with unexploded ordnance from cluster munitions.”¹⁰³ Therefore, it is current DoD policy that, after 2018, DoD components will only employ cluster munitions containing submunitions that, after arming, do not result in more than 1 percent unexploded ordnance across the range of intended operational environments.¹⁰⁴ Until the end of 2018, the use of cluster munitions that exceed the 1 percent unexploded ordnance rate must be approved by certain senior operational commanders.¹⁰⁵

d. Policies relating to anti-personnel landmines

In 1996, the Secretary of Defense directed DoD components to implement U.S. policy related to anti-personnel landmines, including a policy to undertake not to use, and to place in inactive stockpile status with intent to demilitarize by the end of 1999, all non-self-destructing anti-personnel landmines not needed for (1) training personnel engaged in demining and countermining operations, and (2) to defend the United States and its allies from armed aggression across the Korean demilitarized zone.¹⁰⁶ The Secretary of Defense was also directed to undertake a program of research, procurement, and other measures needed to eliminate the requirement for these exceptions and to permit both the United States and its allies to end

¹⁰¹ Department of Defense, Office of the Secretary of Defense, *DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, page 1 (June 19, 2008) (“Landmine submunitions are also excluded since they are covered by existing policy and international agreements.”).

¹⁰² Department of Defense, Office of the Secretary of Defense, *DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, page 1 (June 19, 2008) (“Cluster munitions are legitimate weapons with clear military utility. They are effective weapons, provide distinct advantages against a range of targets and can result in less collateral damage than unitary weapons.”).

¹⁰³ Department of Defense, Office of the Secretary of Defense, *DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, page 1 (June 19, 2008) (“The Department recognizes the need to minimize the unintended harm to civilians and civilian infrastructure associated with unexploded ordnance from cluster munitions, consistent with the obligation to minimize collateral effects resulting from the use of force in pursuit of legitimate military objectives.”).

¹⁰⁴ Department of Defense, Office of the Secretary of Defense, *DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, page 2 (June 19, 2008) (“It is DoD policy that . . . [a]fter 2018, the Military Departments and Combatant Commands will only employ cluster munitions containing submunitions that, after arming, do not result in more than 1% unexploded ordnance (UXO) across the range of intended operational environments.”).

¹⁰⁵ Department of Defense, Office of the Secretary of Defense, *DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, page 2 (June 19, 2008) (“It is DoD policy that . . . [u]ntil the end of 2018, use of cluster munitions that exceed the 1% UXO rate must be approved by the Combatant Commander.”).

¹⁰⁶ Department of Defense, Office of the Secretary of Defense, *Implementation of the President’s Decision on Anti-Personnel Landmines*, page 1 (June 17, 1996) (“Effective immediately, the United States will unilaterally undertake not to use, and to place in inactive stockpile status with intent to demilitarize by the end of 1999, all non-self-destructing APL not needed for (a) training personnel engaged in demining and countermining operations, and (b) to defend the United States and its allies from armed aggression across the Korean demilitarized zone.”).

reliance on APL as soon as possible.¹⁰⁷ The 1996 policy was replaced in 2004 with a policy addressing both anti-personnel landmines and anti-vehicle landmines.¹⁰⁸ The 2004 policy committed the United States not to employ persistent landmines after 2010¹⁰⁹ and stated that the United States would not have any non-detectable mines in its arsenal within one year of the policy's announcement.¹¹⁰

In 2014, the United States again updated its anti-personnel landmine policy stating that the United States would (1) not use anti-personnel landmines outside the Korean Peninsula; (2) not assist, encourage, or induce anyone outside the Korean Peninsula to engage in activity prohibited by the Ottawa Convention; and (3) undertake to destroy stockpiles of anti-personnel landmines not required for the Republic of Korea's defense.¹¹¹ The United States also stated that it would not produce or acquire any anti-personnel munitions that are not compliant with the Ottawa Convention.¹¹² It was also stated that the United States would continue diligent efforts to pursue material and operational solutions that would be compliant with and ultimately allow the United

¹⁰⁷ Department of Defense, Office of the Secretary of Defense, *Implementation of the President's Decision on Anti-Personnel Landmines*, page 2 (June 17, 1996) ("The Secretary of Defense is directed to undertake a program of research, procurement, and other measures needed to eliminate the requirement for these exceptions and to permit both the United States and its allies to end reliance on APL as soon as possible.").

¹⁰⁸ U.S. Department of State Bureau of Political-Military Affairs, *New United States Policy on Landmines: Reducing Humanitarian Risk and Saving Lives of United States Soldiers* (Feb. 27, 2004), available at <http://2001-2009.state.gov/t/pm/rls/fs/30044.htm> ("[T]he President has announced a bold, comprehensive policy on the use of landmines that, unlike any previous landmine policy, covers all persistent landmines, both anti-personnel and anti-vehicle.").

¹⁰⁹ U.S. Department of State Bureau of Political-Military Affairs, *New United States Policy on Landmines: Reducing Humanitarian Risk and Saving Lives of United States Soldiers* (Feb. 27, 2004), available at <http://2001-2009.state.gov/t/pm/rls/fs/30044.htm> ("The United States has committed to eliminate persistent landmines of all types from its arsenal. . . . Today, persistent anti-personnel landmines are *only* stockpiled for use by the United States in fulfillment of our treaty obligation to the Republic of Korea. Between now and the end of 2010, persistent anti-vehicle mines can only be employed outside the Republic of Korea when authorized by the President. After 2010, the United States will not employ either of these types of landmines.").

¹¹⁰ U.S. Department of State Bureau of Political-Military Affairs, *New United States Policy on Landmines: Reducing Humanitarian Risk and Saving Lives of United States Soldiers* (Feb. 27, 2004), available at <http://2001-2009.state.gov/t/pm/rls/fs/30044.htm> ("Within one year, the United States will no longer have any non-detectable mine of any type in its arsenal.").

¹¹¹ White House, *Fact Sheet: Changes to U.S. Anti-Personnel Landmine Policy* (Sept. 23, 2014), available at <https://www.whitehouse.gov/the-press-office/2014/09/23/fact-sheet-changes-us-anti-personnel-landmine-policy> ("[The] United States will: not use [anti-personnel landmines] outside the Korean Peninsula; not assist, encourage, or induce anyone outside the Korean Peninsula to engage in activity prohibited by the Ottawa Convention; and undertake to destroy [anti-personnel landmine] stockpiles not required for the defense of the Republic of Korea.").

¹¹² White House, *Fact Sheet: Changes to U.S. Anti-Personnel Landmine Policy* (Sept. 23, 2014), available at <https://www.whitehouse.gov/the-press-office/2014/09/23/fact-sheet-changes-us-anti-personnel-landmine-policy> ("This change to U.S. [anti-personnel landmine] policy builds on the announcement that the U.S. delegation made in June at the Third Review Conference of the Ottawa Convention in Maputo, Mozambique, that the United States will not produce or otherwise acquire any anti-personnel munitions that are not compliant with the Ottawa Convention, including to replace such munitions as they expire in the coming years.").

States to accede to the Ottawa Convention while ensuring the United States' ability to meet its alliance commitments to the Republic of Korea.¹¹³

Method

18. *How, when (i.e. what stage of the study, development or acquisition process) and by whom is the legal review mechanism triggered? Is there a fast track for urgent operational requirements?*

DoD policy generally does not specify at what stage in the process of acquiring weapons that the legality of such weapons is to be reviewed and who is to request such review. The weapon may not be acquired or procured, however, unless the legal requirements have been met.

Additionally, as noted in our response above, the Heads of DoD Components that acquire weapons or weapon systems (e.g., the Secretary of the Army, the Secretary of the Navy, the Secretary of the Air Force) may specify additional or more exacting requirements, consistent with DoD policy, including by specifying who is to request a legal review, at what stage in the process of acquiring weapons that such a request is to be made, and the procedures for making such a request.

In practice, legal advice on the intended acquisition of weapons may be provided at many different stages in the process of acquiring such weapons. For example, persons responsible for weapons development or testing may consult with legal advisers before a formal review is conducted or a formal opinion is given by an attorney authorized to conduct such a review.

DoD policy does not provide for a fast-track legal review process. DoD policy does provide for streamlined acquisition procedures when there is a strong threat-based or operationally driven need to field a capability solution in the shortest time.¹¹⁴ Such procedures, however, do not obviate the need for a legal review that would otherwise be required.

U.S. statutory requirements are complied with when using such streamlined procedures, unless such requirements have been waived in accordance with relevant provisions.¹¹⁵ This streamlined acquisition process is for effectively fulfilling urgent operational needs and other quick reaction

¹¹³ White House, *Fact Sheet: Changes to U.S. Anti-Personnel Landmine Policy* (Sept. 23, 2014), available at <https://www.whitehouse.gov/the-press-office/2014/09/23/fact-sheet-changes-us-anti-personnel-landmine-policy> (“We will continue diligent efforts to pursue material and operational solutions that would be compliant with and ultimately allow us to accede to the Ottawa Conventional while ensuring our ability to meet our alliance commitment to the Republic of Korea.”).

¹¹⁴ DoD Directive 5000.02, *Operation of the Defense Acquisition System*, ¶5a(2)(b) (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“When there is a strong threat-based or operationally driven need to field a capability solution in the shortest time, [Milestone Decision Authorities] are authorized to implement streamlined procedures designed to accelerate acquisition system responsiveness.”).

¹¹⁵ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, ¶5b(2)(b) (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“Statutory requirements will be complied with, unless waived in accordance with relevant provisions.”).

capabilities that can be fielded in less than 2 years and that are below certain cost thresholds.¹¹⁶ Again, any streamlined process does not waive the requirement to review the legality of the weapon under international law.

19. How is the information about the weapons/technology under review gathered?

DoD policy generally does not specify the specific information that must be considered during the legal review of weapons and from what sources it must be obtained. The type of information to be considered will depend on the nature of the specific legal requirement being considered. In the case of non-lethal weapons, DoD policy provides that DoD components are to ensure that human effects assessment data is provided to support the legal review.¹¹⁷ Also, as noted in our response above, each Head of a DoD Component may specify additional or more exacting requirements applicable to that Component, consistent with DoD policy, including by specifying what kind of information attorneys authorized to conduct legal reviews are to consider and from what sources.

Department of the Army

Within the Department of the Army, the materiel developer responsible for acquiring a weapon or weapon system is to provide the Judge Advocate General of the Army a general description of the weapon or weapon system, including a description of the mission and the desired terminal ballistic effects of the weapon or weapon system.¹¹⁸ Tests and laboratory studies are acceptable.¹¹⁹

The Judge Advocate General of the Army may request any pertinent additional information needed for a legal review from the materiel developer; the Army Deputy Chief of Staff for

¹¹⁶ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 13, ¶1 (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“This enclosure provides policy and procedure for acquisition programs that provide capabilities to fulfill urgent operational needs and other quick reaction capabilities that can be fielded in less than 2 years and are below the cost thresholds of Acquisition Category (ACAT) I and IA programs.”).

¹¹⁷ DoD Instruction 3200.19, *Non-Lethal Weapons (NLW) Human Effects Characterization*, ¶6 (May 17, 2012) (“The Secretaries of the Military Departments and the Commander, USSOCOM, shall: . . . d. Ensure human effects assessment data is provided to the servicing legal office to support the legal review of non-lethal weapons required during the acquisition process.”).

¹¹⁸ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶6c (Jan. 1, 1979) (“The Materiel Developer will . . . (2) Provide to TJAG a general description of the weapon or weapon system submitted for legal review. This will include a description of the mission and the desired terminal ballistic effects of the weapon or weapon system.”).

¹¹⁹ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶6c(2) (Jan. 1, 1979) (“Tests and laboratory studies are acceptable.”).

Research, Development, and Acquisition; the Army Surgeon General; or any other DoD component.¹²⁰

Department of the Navy

Within the Department of the Navy, the command requesting the initiation of the legal review is to prepare and forward to the Office of the Judge Advocate General of the Navy (International and Operational Law) a memorandum containing certain information in commonly understood language.¹²¹ In particular, the memorandum is to have a complete description of the weapon or weapon system, including a list of all its parts, how it functions, what it does, the manning level required for its use, and whether it is self-propelled, mounted, or attached to a platform, or whether it is portable.¹²² The memorandum is also to describe the concept or method of employment planned for the use of the weapon or weapon system, including detailed information from the final approved concept of operation or method of employment that describes exactly how the system will be used.¹²³ The memorandum is also to provide information regarding the weapon or weapon system's accuracy, including a comparison of the accuracy of the new weapon or weapon system to similar weapons or weapon systems that have been acquired and that have received a legal review,¹²⁴ as well as information regarding the weapon or weapon

¹²⁰ Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, ¶6d (Jan. 1, 1979) (“TJAG will request any pertinent additional information needed for a legal review from the Materiel Developer, DCSRDA, The Surgeon General, and any other component or agency of the Department of Defense.”).

¹²¹ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language:”).

¹²² Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: 1. A complete description of the weapon or weapon system to include: a list of all its parts, how it functions, what it does, the manning level required for its use, and whether it is self-propelled, mounted or attached to a platform, or portable.”).

¹²³ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 2. The concept or method of employment planned for the use of the weapon or weapon system. This should include detailed information from the final approved concept of operation or method of employment that describes exactly how the system will be used.”).

¹²⁴ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 3. Information regarding the ability of the weapon and or weapon system to be directed at a specific target (accuracy), including a comparison of the

system's impact on the human body and on material objects¹²⁵ and any additional information or testing data and pertinent conclusions arising from tests of the weapon or weapon system.¹²⁶

Department of the Air Force

If requested, U.S. Air Force personnel are to provide certain information so that a judge advocate, or Air Force General Counsel for special access programs, may review weapons for legality.¹²⁷ Such information includes: (1) a general description of the weapon submitted for legal review; (2) statements of intended use or concepts of operation; and (3) the reasonably anticipated effects of the weapon's employment.¹²⁸

20. What kind of expertise and how many experts are involved in the process? What is their background?

As noted in our response above, the legal review of weapons is one aspect of a much larger process of acquiring weapons. Although this question seems to contemplate a legal review process that involves experts from other areas, we think it is more accurate to characterize DoD as implementing an acquisition process that includes legal review.

accuracy of the new weapon or weapon system to similar weapons or weapon systems (or munitions) that have already been acquired or developed and have received a legal review.”).

¹²⁵ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 4. Information regarding the impact of the weapon and or weapon system on the human body and on material objects.”).

¹²⁶ Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, ¶1.6.1a(2)(c) (Sept. 1, 2011) (“To provide the information required to address these LOAC issues, the command requesting the initiation of the legal review shall prepare and forward to Navy Office JAG Code 10 (International and Operational Law) a memorandum containing the following in commonly understood language: . . . 5. Any additional information or testing data and pertinent conclusions arising from these tests.”).

¹²⁷ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶2.1 (Jul. 27, 2011) (“Upon cognizant legal authority’s request, Air Force personnel will provide the following information, so that a judge advocate, or General Counsel in the instance of a special access program, may complete the reviews required by this Instruction.”).

¹²⁸ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶2.1 (Jul. 27, 2011) (“Upon cognizant legal authority’s request, Air Force personnel will provide the following information, so that a judge advocate, or General Counsel in the instance of a special access program, may complete the reviews required by this Instruction: 2.1.1. A general description of the weapon or cyber capability submitted for legal review. 2.1.2. Statements of intended use (such as types of targets) or concepts of operation. 2.1.3. The reasonably anticipated effects of employment, to include all tests, computer modelling, laboratory studies, and other technical analysis and results that contribute to the assessment of reasonably anticipated effects.”).

21. What kind of testing and risk assessment procedures are conducted? And who is responsible for them? Are there national standards on testing and validation?

The persons responsible for the testing of new weapons and validating their performance within the Department of Defense depend on the particular weapon and on which DoD component is acquiring such weapon.

In general, DoD acquisition policies provide for test and evaluation of proposed weapons and weapon systems as part of assessments related to a weapon program's readiness to proceed to the next acquisition phase and the soundness of committing resources toward the weapon's acquisition.¹²⁹ We would emphasize that testing new weapons and validating their performance is a prudent military practice; generally, this is not done out of a sense that such testing and validation are required by international law. The fundamental purpose of test and evaluation is to enable DoD to acquire systems that function as intended.¹³⁰ Test and evaluation provides engineers and decision-makers with knowledge to assist in managing risk, to measure technical progress, and to characterize operational effectiveness, suitability, and survivability of weapon systems.¹³¹ Testing occurs throughout the generic acquisition process.¹³²

¹²⁹ DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.11 (May 12, 2003, certified current as of Nov. 20, 2007) ("Test and evaluation shall be integrated throughout the defense acquisition process. Test and evaluation shall be structured to provide essential information to decision-makers, assess attainment of technical performance parameters, and determine whether systems are operationally effective, suitable, survivable, and safe for intended use. The conduct of test and evaluation, integrated with modelling and simulation, shall facilitate learning, assess technology maturity and interoperability, facilitate integration into fielded forces, and confirm performance against documented capability needs and adversary capabilities as described in the system threat assessment."); DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, ¶5a(4) (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) ("The purpose of the decision reviews embedded in the acquisition procedures described in this section is to carefully assess a program's readiness to proceed to the next acquisition phase and to make a sound investment decision committing the Department's financial resources. Consequently, reviews will be issue and data focused to facilitate an examination of relevant questions affecting the decision under consideration and to allow the [Milestone Decision Authority] to judge whether the program is ready to proceed. The following policies will guide decision reviews: . . . (f) The documents prepared in support of the decision process (e.g., Acquisition Strategy, Systems Engineering Plan (SEP), Test and Evaluation Master Plan (TEMP), Life-Cycle Sustainment Plan (LCSP)) should generally not be prepared solely for staff review and approval, but be intended primarily for use within the program as planning and management tools that are highly specific to the program and tailored to meet program needs.").

¹³⁰ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 5, ¶1a (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) ("The fundamental purpose of test and evaluation (T&E) is to enable the DoD to acquire systems that work.").

¹³¹ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 5, ¶1a (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) ("To that end, T&E provides engineers and decision-makers with knowledge to assist in managing risk, to measure technical progress, and to characterize operational effectiveness, suitability, and survivability.").

¹³² DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.11 (May 12, 2003, certified current as of Nov. 20, 2007) ("Test and evaluation shall be integrated throughout the defense acquisition process.").

The Director of Operational Test and Evaluation is responsible for promulgating DoD policies related to operational test and evaluation.¹³³ The Director of Operational Test and Evaluation is also responsible for co-approving test and evaluation plans, strategies, and other documents for major and other designated defense acquisition programs.¹³⁴ The Director of Operational Test and Evaluation is also responsible for approving test and evaluation plans, strategies, and other documents related to the acquisition of other weapon systems that are under his or her oversight.¹³⁵ The Director of Operational Test and Evaluation may place any weapon system under his or her testing and evaluation oversight.¹³⁶

Also, each Military Department is required to establish an independent operational test agency to plan and conduct operational tests.¹³⁷ Operational tests are conducted by appropriate operational test organizations, depending on weapon type, in a realistic threat environment.¹³⁸ DoD components manage and operate major range and test facility base capabilities and resources to provide test and evaluation capabilities in support of the DoD acquisition system.¹³⁹ Such ranges and bases may be used by other DoD users (including DoD training users), and by users outside of DoD, such as other U.S. Government departments and agencies, State and local governments, allied foreign governments, and commercial entities.¹⁴⁰

¹³³ DoD Directive 5141.02, *Director of Operational Test and Evaluation (DOT&E)* ¶1 (Feb. 2, 2009) (“This Directive . . . [a]uthorizes the DOT&E, as a Principal Staff Assistant (PSA) reporting directly to the Secretary of Defense, to promulgate DoD policy in DoD Instructions (DoDIs) within the responsibilities, functions, and authorities assigned herein.”).

¹³⁴ DoD Directive 5141.02, *Director of Operational Test and Evaluation (DOT&E)* ¶6 (Feb. 2, 2009) (“The DOT&E is hereby delegated authority to: . . . [c]o-approve the DoD Test and Evaluation Master Plan (TEMP), T&E Strategy (TES), and T&E portions of integrated management documents with the USD(AT&L) for major and other designated defense acquisition programs, and with the ASD(NII)/DoD CIO for major and other designated automated information systems.”).

¹³⁵ DoD Directive 5141.02, *Director of Operational Test and Evaluation (DOT&E)* ¶6 (Feb. 2, 2009) (“The DOT&E is hereby delegated authority to: . . . [a]pprove the TEMP, TES, or T&E portions of the integrated program management documents for programs that are solely under DOT&E oversight. Approve Test Plans for operational test events of acquisition systems under DOT&E oversight.”).

¹³⁶ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 5, ¶3a (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“DOT&E may place any program or system on the DOT&E Oversight List for OT&E or LFT&E oversight at any time.”).

¹³⁷ DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.8 (May 12, 2003, certified current as of Nov. 20, 2007) (“Each Military Department shall establish an independent [Operational Test Agency] reporting directly to the Service Chief to plan and conduct operational tests, report results, and provide evaluations of effectiveness and suitability.”).

¹³⁸ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, ¶5d(11)(b)2 (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“The appropriate operational test organization will conduct operational testing in a realistic threat environment.”).

¹³⁹ DoD Directive 3200.11, *Major Range and Test Facility Base (MRTFB)*, encl. 2 (Dec. 27, 2007) (listing 24 DoD major ranges and test facility bases that are managed and operated by DoD components, including the U.S. Army, the U.S. Navy, the U.S. Air Force, and the Assistant Secretary of Defense for Networks and Information Integration /DoD Chief Information Officer/Defense Information Systems Agency).

¹⁴⁰ DoD Directive 3200.11, *Major Range and Test Facility Base (MRTFB)*, ¶4.5 (Dec. 27, 2007) (“The [major range and test facility base] may be used by other DoD users (including DoD training users), and by users outside the

22. *What kind of cooperation is there between the reviewing authority, the weapon provider, the procurement agency and the end-user?*

DoD components do not solely rely on supplier descriptions when evaluating a new weapon or weapon system.

The primary objective of the DoD weapon acquisition system is to acquire weapons that meet users' needs.¹⁴¹ The process begins with "need identification," wherein relevant DoD components make the decision that a new product is needed and that activities to analyze alternative solutions will occur.¹⁴²

23. *Does the review take into account how the technology might evolve? How are modifications of weapons dealt with?*

DoD recognizes that technology will evolve and would lead to modifications to a particular weapon or weapons system. Depending on the extent of the modification a new review of that system for compliance with the law of armed conflict may be warranted.¹⁴³

For a variety of reasons, it has been DoD practice not to permit the modification of weapons without proper authorization.¹⁴⁴ Furthermore, weapons must not be modified in the field for the purposes of aggravating the harm inflicted on incapacitated persons.¹⁴⁵

Department such as U.S. Government Agencies, State and local governments, allied foreign governments, and commercial entities.”).

¹⁴¹ DoD Directive 5000.01, *The Defense Acquisition System*, ¶4.2 (May 12, 2003, certified current as of Nov. 20, 2007) (“The primary objective of Defense acquisition is to acquire quality products that satisfy user needs with measurable improvements to mission capability and operational support, in a timely manner, and at a fair and reasonable price.”).

¹⁴² DoD Directive 5000.02, *Operation of the Defense Acquisition System*, ¶5c(2)(b) (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“Need Identification, called the Materiel Development Decision by DoD, is the decision that a new product is needed and that activities to analyze alternative solutions will occur.”).

¹⁴³ See, e.g., Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶1.3 (Jul. 27, 2011) (“The Operations and International Law Directorate, Office of The Judge Advocate General (AF/JAO) will: 1.3.1. Upon request, conduct a timely legal review of all weapons and cyber capabilities, whether a new weapon or cyber capability at an early stage of the acquisition process, or a contemplated modification of an existing weapon system or cyber capability, to ensure legality under LOAC, domestic law and international law prior to their acquisition for use in a conflict or other military operation.”).

¹⁴⁴ DoD Law of War Manual, § 6.3.2 (Refraining From Modifying Weapons Without Proper Authorization) (June 2015, Updated Dec. 2016) (“For a variety of reasons, DoD practice has been not to permit the modification of weapons without proper authorization.”).

¹⁴⁵ DoD Law of War Manual, § 6.3.2 (Refraining From Modifying Weapons Without Proper Authorization) (June 2015, Updated Dec. 2016) (“In particular, weapons must not be modified in the field for the purpose of aggravating the harm inflicted on incapacitated persons.”).

Additional Relevant Information

Do new technologies make the review of the legality of new weapons more challenging?

The challenges in reviewing the legality of the acquisition of weapons with new technologies are likely to depend on the specific nature of the weapon being reviewed as well as the legal rules against which it is being assessed. Given the variations in technology as well as the legal rules, it is not possible to state more than a few generalizations.

Similar to other parts of the law of war, the rules relating to weapons are generally characterized as prohibitive law forbidding certain weapons or the use of weapons in certain instances rather than positive law authorizing the weapon or its use.¹⁴⁶ We note that the mere fact that a weapon is novel or employs new technology does not mean that the weapon is illegal.¹⁴⁷ Furthermore, the law of war does not require States to establish a general practice of using a weapon before it is to be regarded as legal.¹⁴⁸

Does your State's review of the legality of weapons consider information derived from other States' acquisition or use of the same weapon?

As in international law more generally, another State's expressed legal view or another State's practice under a treaty rule or customary law may be considered in a review by U.S. lawyers. For example, a 1988 Memorandum of Law from the Army Judge Advocate General on the use of lasers as antipersonnel weapons noted that Sweden's efforts to prohibit the use of lasers as antipersonnel weapons *per se* "met with no success" with other States, which "serves as an acknowledgement of the legality of such use under the current law of war."¹⁴⁹ Of course, another State's practice or legal views would not be binding upon the United States. For example, the Department of the Air Force has stated that, as a matter of policy, the fact that

¹⁴⁶ DoD Law of War Manual, § 6.2.1 (Review of New Types of Weapons) (June 2015, Updated Dec. 2016) ("Like other aspects of the law of war, the rules relating to weapons are generally characterized as prohibitive law forbidding certain weapons or the use of weapons in certain instances rather than positive law authorizing the weapon or its use.").

¹⁴⁷ DoD Law of War Manual, § 6.2.1 (Review of New Types of Weapons) (June 2015, Updated Dec. 2016) ("Thus, the mere fact that a weapon is novel or employs new technology does not mean that the weapon is illegal.").

¹⁴⁸ DoD Law of War Manual, § 6.2.1 (Review of New Types of Weapons) (June 2015, Updated Dec. 2016) ("The law of war does not require States to establish a general practice of using a weapon before it is to be regarded as legal.").

¹⁴⁹ Department of the Army Judge Advocate General, *Memorandum of Law: The Use of Lasers as Antipersonnel Weapons*, reprinted in 1988 ARMY LAWYER 3, 3 ("Sweden's most recent effort proposed to prohibit use of lasers as antipersonnel weapons *per se*. This proposal, offered first on an informal basis to delegates to the United Nations Committee on Disarmament in Geneva on 18 April 1988, and subsequently to the United Nations Special Session on Disarmament III in New York in June, 1988, met with no success in either instance. This history not only indicates a lack of international support for any prohibition or regulation on the use of lasers as antipersonnel weapons, but simultaneously serves as an acknowledgement of the legality of such use under the current law of war; were such use illegal *per se*, no further regulation would be necessary.").

another Service or the forces of another country have adopted the weapon may be considered in determining the legality of such a weapon, but such fact is not to be binding for purposes of the Air Force legal review.¹⁵⁰

Are weapons tested for reliability? Does your State have standards on testing and evaluation? Are there specific levels of reliability that are considered acceptable?

Test and evaluation are integrated throughout the process of acquiring weapons.¹⁵¹ The fundamental purpose of test and evaluation is to enable DoD to acquire systems that work.¹⁵² Test and evaluation provide engineers and decision-makers with knowledge to assist in managing risk, to measure technical progress, and to characterize operational effectiveness, suitability, and survivability of weapon systems.¹⁵³ Test and evaluation are used to accomplish several other objectives related to acquiring weapons, including confirming performance against documented capability needs.¹⁵⁴

Program managers for major weapons programs designate a Chief Developmental Tester and government test agency responsible for providing technical expertise, conducting tests and evaluations, supporting certification and accreditation (when feasible), assisting with oversight of contractors, and assisting with forming judgments about contractor and government test and evaluation planning and results.¹⁵⁵

¹⁵⁰ Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, ¶3.2 (Jul. 27, 2011) (“The fact that another Service or the forces of another country has adopted the weapon or cyber capability may be considered in determining the legality of such weapon or cyber capability, but such fact shall not be binding for purposes of any legal review conducted under this Instruction.”).

¹⁵¹ DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.11 (May 12, 2003, certified current as of Nov. 20, 2007) (“Test and evaluation shall be integrated throughout the defense acquisition process.”).

¹⁵² DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 5, ¶1a (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“The fundamental purpose of test and evaluation (T&E) is to enable the DoD to acquire systems that work.”).

¹⁵³ DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.11 (May 12, 2003, certified current as of Nov. 20, 2007) (“Test and evaluation shall be structured to provide essential information to decision-makers, assess attainment of technical performance parameters, and determine whether systems are operationally effective, suitable, survivable, and safe for intended use.”).

¹⁵⁴ DoD Directive 5000.01, *The Defense Acquisition System*, encl. 1, ¶E1.1.11 (May 12, 2003, certified current as of Nov. 20, 2007) (“The conduct of test and evaluation, integrated with modelling and simulation, shall facilitate learning, assessment technology maturity and interoperability, facilitate integration into fielded forces, and confirm performance against documented capability needs and adversary capabilities as described in the system threat assessment.”).

¹⁵⁵ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 4, ¶3a (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) (“Program managers for MDAPs and MAIS programs will designate a Chief Developmental Tester in accordance with 10 U.S.C. 139b and 1706 (Reference (h)). The Chief Developmental Tester will be responsible for coordinating the planning, management, and oversight of all DT&E activities; maintaining insight into contractor activities; overseeing the T&E activities of other participating government activities; and helping the Program Manager make technically informed, objective judgments about contractor and government T&E planning and results. The Chief Developmental Tester will chair the integrated test planning group.”); DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 4, ¶3.b (Jan. 7,

Specific test and evaluation criteria depend on the type of weapon being acquired; the program manager is responsible for resourcing and executing the weapon's approved test and evaluation program.¹⁵⁶ The test and evaluation program supports systems engineering, evaluations, and certification throughout the program life cycle.¹⁵⁷ The test program planning is documented and requires various approvals depending on the type of weapon being acquired and the organization responsible for test and evaluation oversight.¹⁵⁸

We would emphasize that the testing of new weapons and the validating their performance are prudent military practices and generally are not done out of a sense that such testing and validation are required by international law.

We would also emphasize that the standards for the reliability of weapons are generally not established because of the requirements of international law. However, there are a few exceptions applicable to the United States, such as the self-destruction and self-deactivating standards related to remotely delivered anti-personnel mines provided in the Technical Annex to Protocol (II) on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, as Amended on May 3, 1996, Annexed to the CCW.

Are weapons that have already been fielded subject to subsequent legal review based on technical performance or the evolution of the law of war?

No, as a general matter, a weapon's poor technical performance would not make a weapon illegal to possess or make a weapon's use prohibited in all circumstances. "Technical

2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) ("Program managers for MDAPs will designate a government test agency to serve as the lead DT&E organization in accordance with 10 U.S.C. 139b. The lead DT&E organization will be responsible for providing technical expertise on T&E issues to the Chief Developmental Tester; conducting DT&E activities as directed by the Chief Developmental Tester or his or her designee; supporting certification and accreditation activities when feasible; assisting the Chief Developmental Tester in providing oversight of contractors; and assisting the Chief Developmental Tester in reaching technically informed, objective judgments about contractor and government T&E planning and results.").

¹⁵⁶ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 5, ¶1b (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) ("The Program Manager is responsible for resourcing and executing the system's approved T&E program.").

¹⁵⁷ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 5, ¶1b (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) ("The team starts early (i.e., pre-Milestone A) to develop a robust, rigorous, and efficient test program that will be conducted in support of systems engineering, evaluations, and certifications throughout the program life cycle.").

¹⁵⁸ DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, encl. 5, ¶1b (Jan. 7, 2015, incorporating change 1, effective Jan. 26, 2017, and change 2, effective Feb. 2, 2017) ("The Program Manager documents the test program planning in the Test and Evaluation Master Plan (TEMP). All TEMPs will require DoD Component approval; TEMPs for programs under [Director, Operational Test and Evaluation] oversight will also require DOT&E approval. The operational and select live fire test events in the TEMP must have approved test plans. Test plans are written and approved by the test organization responsible for the test. Operational test plans (OTPs) for programs under DOT&E oversight and live fire test plans (LFTPs) for programs under DOT&E LFT&E oversight will require DOT&E approval.").

performance” as such is generally not a basis for the use of a weapon to be prohibited by international law applicable to the United States. Additionally, it is much more likely a weapon that performed poorly (*e.g.*, failed to fire when directed, detonated at the wrong time, or was unable create desired battlefield effects) would not be used for prudential military reasons rather than for legal reasons.

With respect to “the evolution of the law of war,” if the United States assumed new legal obligations, the United States would, as required by and in accordance with the new legal obligation, review the legality of existing weapons, weapons systems, and other military activities and procedures in light of the new legal obligation.

However, “the evolution of the law of war” as such is not a basis for a weapon to be rendered unlawful, and the law of war does not “evolve” in the abstract. Rather, States take on international obligations either through treaties or by their consistent practice, followed out of a sense of legal obligation, thus creating customary law. As noted by the Permanent Court of International Justice, “[t]he rules of law binding upon States therefore emanate from their own free will as expressed in conventions or by usages generally accepted as expressing principles of law and established in order to regulate the relations between these co-existing independent communities or with a view to the achievement of common aims.”¹⁵⁹ It is difficult to see how it would be possible for existing weapons deployed by the United States to be rendered unlawful with respect to the United States, if, for example, the United States has persistently objected to the development of a customary international law prohibition.¹⁶⁰

Did your State retrospectively review all of its weapons after Additional Protocol I was adopted or after setting up a process to review the legality of new weapons?

The United States is not a party to the 1977 Additional Protocol I to the 1949 Geneva Conventions and therefore is not bound by that instrument. We note also that Article 36 of that Protocol only would create an obligation for High Contracting Parties with respect to a “new” weapon, means, or method of warfare. Formal procedures for the legal review of weapons were first established within the Department of Defense in 1974.¹⁶¹ However, these procedures were

¹⁵⁹ S.S. Lotus, PCIJ, Series A, No. 10, p. 18 (Sept. 7, 1927).

¹⁶⁰ Cf. Written Statement of the Government of the United States of America, 14-15, Jun. 20, 1995, I.C.J., Request by the United Nations General Assembly for an Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons (“It is well known that the Permanent Members of the Security Council possess nuclear weapons and have developed and deployed systems for their use in armed conflict. These States would not have borne the expense and effort of acquiring and maintaining these weapons and delivery systems if they believed that the use of nuclear weapons was generally prohibited. On the contrary, the possible use of these weapons is an important factor in the structure of their military establishments, the development of their security doctrines and strategy, and their efforts to prevent aggression and provide an essential element of the exercise of their right of self-defense. (These deployments and doctrines are discussed in the 1990 Report of the Secretary-General on nuclear weapons.) This pattern of conduct is inconsistent with the existence of any general legal prohibition on the use of nuclear weapons.”) (footnotes omitted).

¹⁶¹ L. Niederlehner, Acting General Counsel, Department of Defense, Letter to Donald M. Fraser, Chairman, Subcommittee on International Organizations and Movements, House of Representatives, Jan. 18, 1974 (“At that time and currently, no existing regulations of the Department of Defense establish formal procedures respecting an

an attempt to expand and make more systematic the existing practices of lawyers advising on the acquisition and procurement of weapons.¹⁶² We are not aware of a retrospective review being conducted when DoD procedures were established.

Does customary international law require the review of the legality of weapons, means, and methods of warfare?

The United States views the review of the legality of weapons, means, and methods of warfare as a best practice for the implementation of customary and treaty law relating to weapons, means, and methods of warfare, but does not consider customary law to require these reviews as such.

In our view, there is insufficient State practice and *opinio juris* to conclude that there exists, under customary law, an obligation to review the legality of weapons for consistency with customary law. First, the provision in the 1977 Additional Protocol I to the 1949 Geneva Conventions relating to the review of the legality of new weapons was a new provision at the time of its adoption. One scholar has observed that, even including States Parties to the 1977 Additional Protocol I, “relatively few states are believed to have systems for the legal review of weapons.”¹⁶³ Furthermore, a 2006 ICRC study states that only Australia, Belgium, the Netherlands, Norway, Sweden, the United States, France, the United Kingdom, and Germany are known to have instituted processes for the legal review of weapons.¹⁶⁴ In our view, the limited State practice of which we are aware does not constitute the general and consistent practice required for the formation of customary law, even assuming that such practice was done out of a sense of legal obligation.

Although legal reviews are not required as such under customary international law, there are customary international law rules relating to weapons. The DoD Law of War Manual discusses a number of customary international law rules relating to weapons. For example, the prohibition

analysis of the lawfulness of weapons newly to be introduced in service. We now intend to take the necessary measures to have such procedures formulated and adopted.”); *see also* DoD Instruction 5500.15, *Review of Legality of Weapons Under International Law*, (Oct. 16, 1974).

¹⁶² *See* Hearings before the Subcommittee on International Organizations and Movements of the Committee on Foreign Affairs, House of Representatives, Ninety Third Congress, First Session, *International Protection of Human Rights: The Work of International Organizations and the Role of U.S. Foreign Policy*, p.141 (1974) (“Mr. ALDRICH. I think the review on that question is as General Prugh described it. In the Defense Department, the military judge advocates general have to review projects. In practical working terms, before you can get approval for a development project or for an item under research to go into production there has to be a clearance from the Office of the Judge Advocate General. That is how it is carried out. General PRUGH. That is substantially correct. I would be less than candid if I left the impression that every development that comes along with respect to a weapon is referred to the lawyers for their comment. This is, of course, the desire that we have, and as the military legal adviser to the Secretary of the Army, that is a position I further as much as I can. But the research and development process is a very complex one, too, and a lot of these things, I am sure, would never be addressed to us in their early stage. When we have an opportunity at all to weigh in on the question of applicability to the Geneva Conventions or the law of war, we certainly do. I regard this as one of the important functions for us, but I cannot say it is a frequent one.”).

¹⁶³ WILLIAM H. BOOTHBY, *WEAPONS AND THE LAW OF ARMED CONFLICT* 341 (2009).

¹⁶⁴ International Committee of the Red Cross, *A Guide to the Legal Review of New Weapons, Means and Methods of Warfare: Measures to Implement Article 36 of Additional Protocol I of 1977*, page 5, fn. 8 (Jan. 2006).

on weapons calculated to cause superfluous injury and the prohibition on inherently indiscriminate weapons are described as based in customary international law.¹⁶⁵ Similarly, the DoD Law of War Manual notes that the United States has determined that the prohibition on the use in war of asphyxiating, poisonous, or other gases, and all analogous liquids, materials, or devices is part of customary international law.¹⁶⁶

In our view, conducting a legal review of a weapon, or a means or method of warfare, is a best practice for the implementation of substantive legal rules (whether treaty or customary), but a State (or non-State armed group) does not violate customary international law by failing to conduct such a review.

Is information about your State's process of reviewing the legality of weapons public?

DoD and its components have issued a number of publicly available directives, instructions, and manuals relating to the legal review of the acquisition of weapons and weapon systems. These include:

- DoD Directive 5000.01, *The Defense Acquisition System*, (May 12, 2003, certified current as of Nov. 20, 2007);
- DoD Directive 3000.03E, *DoD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy*, (Apr. 25, 2013);
- DoD Directive 3000.09, *Autonomy in Weapon Systems*, (Nov. 21, 2012);
- Department of Defense Law of War Manual, § 6.2 (DoD Policy of Reviewing the Legality of Weapons) (June 2015, updated Dec. 2016);
- Army Regulation 27-53, *Review of Legality of Weapons Under International Law*, (Feb. 1, 1979);
- Secretary of the Navy Instruction 5000.2E, *Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System*, (Sep. 1, 2011); and
- Air Force Instruction 51-402, *Legal Reviews of Weapons and Cyber Capabilities*, (July 27, 2011).

¹⁶⁵ DoD Law of War Manual, § 6.4.1 (General Prohibitions Applicable to All Types of Weapons) (June 2015, Updated Dec. 2016) (“Two fundamental prohibitions based in customary international law apply to all weapons. It is prohibited to use: • weapons calculated to cause superfluous injury; or • inherently indiscriminate weapons.”).

¹⁶⁶ DoD Law of War Manual, § 6.8.2 (Asphyxiating, Poisonous, or Other Gases, and All Analogous Liquids, Material, or Devices) (June 2015, Updated Dec. 2016) (“It is prohibited to use in war asphyxiating, poisonous, or other gases, and all analogous liquids, materials, or devices. The United States has determined that this rule is part of customary international law.”).

As noted in our introduction to this questionnaire, we intend to make public the information we have provided in this questionnaire.