Many U.S. allies and coalition partners, including Australia, Canada, and the United Kingdom, are parties to the Ottawa Convention. Article 1 of the Ottawa Convention prohibits States Parties from using, developing, producing, otherwise acquiring, stockpiling, retaining, or transferring to anyone, directly or indirectly, anti-personnel landmines, or to assist, encourage, or induce, in any way, anyone to engage in any activity prohibited to a State Party under the Convention. Australia, Canada, and the United Kingdom have taken the position that its armed forces would not violate the Ottawa Convention merely by reason of taking part in joint operations with forces of an ally that is not bound by the Ottawa Convention and that uses anti-personnel mines.³⁴²

6.13 CLUSTER MUNITIONS

Cluster munitions are not specifically prohibited or restricted by the law of war. DoD has policies on cluster munitions. The use of cluster munitions, in certain circumstances, is likely to reduce the risk of incidental harm as compared to other weapons.

6.13.1 Description of Cluster Munitions. Cluster munitions may be described as munitions composed of a non-reusable canister or delivery body containing multiple, conventional explosive submunitions.³⁴³ Some munitions that may contain submunitions are not considered cluster munitions. For example, 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), and landmines, generally are not considered cluster munitions.

defenses of Eritrea's trenches and field fortifications. Thus, the declarations citing landmine use also frequently refer to the presence of Eritrean trenches in the area/kushet concerned. In principle, the defensive use of minefields to protect trenches would be a lawful use under customary international law.").

³⁴² Australia, Statement on Ratification of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction, Jan. 14, 1999, 2057 UNTS 214, 218 ("It is the understanding of Australia that, in the context of operations, exercises or other military activity authorized by the United Nations or otherwise conducted in accordance with international law, the participation by the ADF, or individual Australian citizens or residents, in such operations, exercises or other military activity conducted in combination with the armed forces of States not party to the Convention which engage in activity prohibited under the Convention would not, by itself, be considered to be in violation of the Convention."); Canada, Statement on Signature of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction, Dec. 3, 1997, 2056 UNTS 211, 310 ("It is the understanding of the Government of Canada that, in the context of operations, exercises or other military activity sanctioned by the United Nations or otherwise conducted in accordance with international law, the mere participation by the Canadian Forces, or individual Canadians, in operations, exercises or other military activity conducted in combination with the armed forces of States not party to the Convention which engage in activity prohibited under the Convention would not, by itself, be considered to be assistance, encouragement or inducement in accordance with the meaning of those terms in article 1, paragraph 1 (c)."); 2004 UK MANUAL ¶6.13 ("Members of the United Kingdom armed forces, will not, however, be guilty of an offence merely by reason of taking part in joint operations with forces of an ally not bound by the Ottawa Convention which deploy landmines.").

³⁴³ Robert Gates, Secretary of Defense, *Memorandum re: DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, Jun. 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. Landmine submunitions are also excluded since they are covered by existing policy and international agreements.").

6.13.2 <u>Use of Cluster Munitions to Reduce the Risk of Incidental Harm</u>. As with incendiary weapons, the use of cluster munitions, in certain circumstances, is likely to result in less incidental harm than the use of other weapons.³⁴⁴ For example, cluster munitions have been used against military objectives containing dangerous forces, such as dams, in order to reduce the risk that bombardment of these objectives would release such forces and cause incidental harm to the civilian population.³⁴⁵

6.13.3 <u>DoD Policy on Cluster Munitions</u>. DoD has developed policies to minimize the negative humanitarian consequences that can sometimes be associated with cluster munitions.³⁴⁶ Under a 2008 policy, the U.S. armed forces will, after 2018, 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.³⁴⁷ Until the end of 2018, cluster munitions that exceed the 1% UXO rate may not be used unless approved by the Combatant Commander.³⁴⁸

6.13.4 <u>Convention on Cluster Munitions</u>. The United States is not a Party to the Convention on Cluster Munitions.³⁴⁹ The United States has determined that its national security interests cannot be fully ensured consistent with the terms of the Convention on Cluster

³⁴⁶ Robert Gates, Secretary of Defense, *Memorandum re: DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, Jun. 19, 2008 ("The DoD policy above is intended to minimize the potential unintended harm to civilians and civilian infrastructure of U.S. cluster munitions employment to the extent possible."); William Cohen, *Memorandum re: DoD Policy on Submunition Reliability*, Jan. 10, 2001 ("Submunition weapons employment in Southwest Asia and Kosovo, and major theater war modeling, have revealed a significant unexploded ordnance (UXO) concern. ... 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. Submunition functioning rates may be lower under operational conditions due to environmental factors such as terrain and weather.").

³⁴⁷ Robert Gates, Secretary of Defense, *Memorandum re: DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, Jun. 19, 2008 ("After 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.").

³⁴⁸ Robert Gates, Secretary of Defense, *Memorandum re: DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, Jun. 19, 2008 ("Until the end of 2018, use of cluster munitions that exceed the 1% UXO rate must be approved by the Combatant Commander.").

³⁴⁴ Robert Gates, Secretary of Defense, *Memorandum re: DoD Policy on Cluster Munitions and Unintended Harm to Civilians*, Jun. 19, 2008 ("DoD recognizes that blanket elimination of cluster munitions is unacceptable due not only to negative military consequences but also due to potential negative consequences for civilians. Large-scale use of unitary weapons, as the only alternative to achieve military objectives, could result, in some cases, in unacceptable collateral damage and explosive remnants of war (ERW) issues."). *Refer to* § 5.11.6 (Weaponeering (E.g., Selecting Appropriate Weapons, Aim Points)).

³⁴⁵ For example, W. Hays Parks, *Linebacker and the Law of War*, AIR UNIVERSITY REVIEW (Jan.-Feb. 1983) (During the Vietnam War, the North Vietnamese placed "AAA gun positions, ground-controlled intercept (GCI) radar, and surface-to-air missile (SAM) sites atop or adjacent to dikes, and storing POL [petroleum, oil, and lubricants] alongside or on top of dikes as a shield against attack. All were legitimate targets. ... When [the air defenses] were finally authorized for attack during Linebacker I, it was with the stipulation that the targets were to be attacked with weapons that would minimize the risk of structural damage to the dikes. This was accomplished through the use of napalm, strafing, cluster munitions, and other antipersonnel weapons.").

³⁴⁹ Convention on Cluster Munitions, May 30, 2008, 2688 UNTS 39.

Munitions.³⁵⁰ The United States has expressed the view that the Convention on Cluster Munitions does not represent an emerging norm or reflect customary international law that would prohibit the use of cluster munitions in armed conflict.³⁵¹

The Convention on Cluster Munitions establishes for its States Parties a number of prohibitions and restrictions on certain types of cluster munitions.³⁵² These rules include prohibitions on assisting, encouraging, or inducing anyone to engage in any activity prohibited to a State Party.³⁵³ Despite these restrictions, States Parties and their military personnel and nationals may engage in military cooperation and operations with States that are not Parties to the Convention on Cluster Munitions that might engage in activities prohibited to a State Party.³⁵⁴ Yet, even during such military operations, the Convention on Cluster Munitions does not authorize a State Party:

- (a) To develop, produce or otherwise acquire cluster munitions;
- (b) To itself stockpile or transfer cluster munitions;
- (c) To itself use cluster munitions; or
- (d) To expressly request the use of cluster munitions in cases where the choice of

³⁵⁰ Harold Hongju Koh, Legal Adviser, Department of State, *Opening Statement for the United States Delegation to the Third Conference of the High Contracting Parties to CCW Protocol V on Explosive Remnants of War*, Nov. 9, 2009 ("We realize many delegations here are parties to the Convention on Cluster Munitions (CCM). However, many States, including the United States, have determined that their national security interests cannot be fully ensured consistent with the terms of the CCM.").

³⁵¹ Ambassador Robert Wood, U.S. Permanent Representative to the Conference on Disarmament, Explanation of Vote at the 70th UN General Assembly First Committee on Draft Resolution L.49/Rev.1, "Implementation of the Convention on Cluster Munitions," Nov. 4, 2015, 2015 DIGEST OF UNITED STATES PRACTICE IN INTERNATIONAL LAW 763, 764 ("In general, the lawfulness of the use of a type of weapon under international law does not depend on an absence of authorization, but instead depends upon whether the weapon is prohibited. The United States does not accept by this or any other standard that the Convention on Cluster Munitions represents an emerging norm or reflects customary international law that would prohibit the use of cluster munitions in armed conflict.").

³⁵² Convention on Cluster Munitions, art. 2(2), May 30, 2008, 2688 UNTS 39, 95 ("**Cluster munition**' means a conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and includes those explosive submunitions. It does not mean the following: ... (c) A munition that, in order to avoid indiscriminate area effects and the risks posed by unexploded submunitions, has all of the following characteristics: (i) Each munition contains fewer than ten explosive submunitions; (ii) Each explosive submunition weighs more than four kilograms; (iii) Each explosive submunition is designed to detect and engage a single target object; (iv) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v) Each explosive submunition is equipped with an electronic self-destruction mechanism; (v)

³⁵³ See, e.g., Convention on Cluster Munitions, art. 1(1), May 30, 2008, 2688 UNTS 39, 94 ("Each State Party undertakes never under any circumstances to: (a) Use cluster munitions; (b) Develop, produce, otherwise acquire, stockpile, retain or transfer to anyone, directly or indirectly, cluster munitions; (c) Assist, encourage or induce anyone to engage in any activity prohibited to a State Party under this Convention.").

³⁵⁴ Convention on Cluster Munitions, art. 21(3), May 30, 2008, 2688 UNTS 39, 113 ("Notwithstanding the provisions of Article 1 of this Convention and in accordance with international law, States Parties, their military personnel or nationals, may engage in military cooperation and operations with States not party to this Convention that might engage in activities prohibited to a State Party.").

munitions used is within its exclusive control.³⁵⁵

6.14 INCENDIARY WEAPONS

The use of incendiary weapons is permissible, but subject to certain restrictions in order to reduce the risk of incidental harm to civilians.

6.14.1 <u>Definition of an Incendiary Weapon</u>. An "incendiary weapon" is any weapon or munition that is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or combination thereof, produced by a chemical reaction of a substance on the target.³⁵⁶ Only "pure" incendiaries, such as napalm or the type of incendiary bombs used in World War II and Korea, are regulated as incendiary weapons.³⁵⁷

6.14.1.1 *Fire or Burn Injury Produced by Chemical Reaction of a Substance on the Target*. Incendiary weapons use a chemical reaction of a substance on the target to create flame or heat that destroys or injures.

On the other hand, laser weapons, even if their primary effect is to set fire to objects or cause burn injuries, do not constitute "incendiary weapons" under CCW Protocol III on Incendiary Weapons because the fire or burn injuries are not produced by a chemical reaction of a substance that is delivered to the target.³⁵⁸ Similarly, chemical weapons cause death or other harm through the toxic properties of chemicals themselves, rather than the chemicals causing a fire or burn injury.³⁵⁹

6.14.1.2 *Examples of Incendiary Weapons*. Examples of incendiary weapons include:³⁶⁰

³⁵⁵ Convention on Cluster Munitions, art. 21(4), May 30, 2008, 2688 UNTS 39, 113.

³⁵⁶ CCW PROTOCOL III ON INCENDIARY WEAPONS art. 1(1) (defining *incendiary weapon* as "any weapon or munition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or combination thereof, produced by a chemical reaction of a substance delivered on the target.").

³⁵⁷ Article-by-Article Analysis of CCW Protocol III on Incendiary Weapons, 2, Enclosure B to Warren Christopher, Letter of Submittal, Dec. 7, 1996, MESSAGE FROM THE PRESIDENT TRANSMITTING THE CCW AMENDED MINES PROTOCOL, PROTOCOL III ON INCENDIARY WEAPONS, AND PROTOCOL IV ON BLINDING LASER WEAPONS 38 ("As a result, the Protocol only covers 'pure' incendiaries, such as napalm or the type of incendiary bombs used in World War II and Korea.").

³⁵⁸ Article-by-Article Analysis of CCW Protocol III on Incendiary Weapons, 2, Enclosure B to Warren Christopher, Letter of Submittal, Dec. 7, 1996, MESSAGE FROM THE PRESIDENT TRANSMITTING THE CCW AMENDED MINES PROTOCOL, PROTOCOL III ON INCENDIARY WEAPONS, AND PROTOCOL IV ON BLINDING LASER WEAPONS 38 ("Similarly, laser weapons are not covered even if their primary effect is to set fire to objects or cause burn injuries, since they do not deliver burning substances on the target.").

³⁵⁹ Refer to § 6.8.3.1 (Definition of Chemical Weapons).

³⁶⁰ CCW PROTOCOL III ON INCENDIARY WEAPONS art. 1(a) ("Incendiary weapons can take the form of, for example, flame throwers, fougasses, shells, rockets, grenades, mines, bombs and other containers of incendiary substances.").