

I. Humanitarian arms control

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Lethal autonomous weapon systems and the Convention on Certain Conventional Weapons

Over the past few decades there has been a notable trend towards automation of weapons and the networks in which they are embedded. Until now most or all of this automation continued to include some aspect of human control over the decision-making or action processes. However, developments in technology have provided, or are likely to provide in the near future, options to automate to the extent where autonomous weapons or networks, with no need for a human in the loop, become a realistic possibility. The emergence of weapons without a human involved in the decision-action phase or weapons that are programmed to ‘self-learn’ raises numerous concerns about their potential negative impact on interstate relations and stability, the threshold for the use of force, as well as their compatibility with international human rights law and international humanitarian law.

Since 2013 these concerns have been discussed under the framework of the 1981 United Nations Convention on Certain Conventional Weapons (CCW), which has as its mandate the prohibition, or restriction, of the use of weapons that may be deemed to be excessively injurious or to have indiscriminate effect.¹ Notably, a four-day informal Meeting of Experts on lethal autonomous weapons systems (LAWS) was organized at the UN office at Geneva in May 2014. Representatives from the parties to the CCW, observer countries, the European Union (EU), the UN Institute for Disarmament Research (UNIDIR), the UN Office for Disarmament Affairs, non-governmental organizations (NGOs) and experts discussed emerging technologies in the area of LAWS, in the context of the objective and purposes of the CCW.²

¹ For a summary and other details of 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, or ‘Inhumane Weapons’ Convention) and of its 5 protocols see annex A, section I, in this volume. See also Anthony, I. and Holland, C., ‘The governance of autonomous weapons’, *SIPRI Yearbook 2014*.

² Non-governmental organizations (NGOs) participating in the meeting included members of the Campaign to Stop Killer Robots [Amnesty International, Article 36, the Association for Aid and Relief Japan, Facing Finance, Human Rights Watch, International Campaign to Ban Landmines–Cluster Munition Coalition Austria, the International Committee on Robot Arms Control (ICRAC), Mines Action Canada, the Nobel Women’s Initiative, PAX, the Pugwash Conferences on Science and World Affairs, and the Women’s International League for Peace and Freedom], as well as the Friends World Committee for Consultation (Quakers), the Geneva International Centre for Humanitarian Demining (GICHD), Pax Christi Ireland, Wildfire and the World Council of Churches.

The topics discussed included the following:

1. Technical issues, such as (a) the precise definition of ‘autonomous’; (b) an examination of existing systems, technologies and applications; and (c) whether and to what extent such systems are dual use in nature (i.e. have both civilian and military application).

2. Ethical and sociological issues, in particular whether human oversight is necessary when making a decision to use force against humans.

3. Legal aspects, including whether LAWS are compatible with international humanitarian law such as (a) the rules of distinction and proportionality in the use of force; (b) the Martens Clause, according to which means of warfare should be evaluated on the ‘principle of humanity’ and the ‘dictate of public conscience’; (c) Article 36 of Additional Protocol I (1977) to the 1949 Geneva Conventions, which requires that states review new and modified weapons for compliance with international law; and (d) the concept of *jus in bello* (the law of war). Additional legal discussions centred on whether LAWS are compatible with certain areas of international law, including the mechanisms of responsibility and accountability, human rights, and the concept of *jus ad bellum* (the right to war).³

4. Operational and military issues, such as (a) the military implications of LAWS; (b) whether appropriate risk-management schemes can be used; and (c) the advantages and limitations of the use of LAWS.

The participants commonly agreed that the discussion is at a preliminary stage, and there is a need to assess the current situation and the future trends in robotics. They also outlined contrasting views on (a) what autonomous weapons are; (b) what challenges these weapons pose; and (c) what action states can take in response to developments in this area.⁴

Terms and definition

During the session on technical aspects, different views were expressed on the definition of ‘lethal autonomous weapon systems’ and on whether a common definition is necessary at this stage. France and the United States asserted that it was premature to formulate a definition, pointing out that

³ On the Martens Clause see Ticehurst, R., ‘The Martens Clause and the laws of armed conflict’, *International Review of the Red Cross*, no. 317, 30 Apr. 1997. Article 36 of Protocol I Additional to the 1949 Geneva Conventions, Relating to the Protection of Victims of International Armed Conflicts, 8 June 1977, requires that states review new and modified weapons for compliance with international law, <<https://www.icrc.org/applic/ihl/ihl.nsf/4e473c7bc8854f2ec12563f60039c738/feb84e9c01ddc926c12563cd0051daf7>>.

⁴ Simon-Michel J. H., ‘Report of the 2014 Informal Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS)’, CCW/MSP/2014/3, 11 June 2014, p. 3. The report and documents used as the basis for discussion in the following sections are available at the website of the United Nations Office at Geneva: <[http://www.unog.ch/80256EE600585943/\(httpPages\)/A038DEA1DA906F9DC1257DD90042E261?OpenDocument](http://www.unog.ch/80256EE600585943/(httpPages)/A038DEA1DA906F9DC1257DD90042E261?OpenDocument)>.

LAWS are an emerging technology not yet in use.⁵ Both Austria and Germany stressed that a more substantive definition would be a desirable outcome from the expert meeting.

The question of what ‘autonomy’ entails in contrast to ‘automatic’ and ‘automated’ was a contentious issue. France stressed that ‘autonomous systems’ had to be understood as systems that do not require human supervision.⁶ Sweden pointed out, however, that the threshold at which a weapon should be considered autonomous was difficult to determine since ‘machine automation/autonomy exists on a continuum’.⁷ Some experts explained that there are ‘different levels of autonomy depending on the degree of human engagement with the system, but also depending on the environment in which it is supposed to operate, its function and the complexity of the tasks envisioned’.⁸ To avoid a simple discussion based purely on the differing levels of technology currently available, UNIDIR invited delegations to focus on the critical functions of autonomy that are a matter of concern (e.g. target selection and the decision to use force).⁹

The inclusion of the word ‘lethal’ in the terms of discussion prompted some disagreement between participants at the meeting. For France, it facilitated a distinction between uses depending on context (i.e. a distinction between human and non-human targets).¹⁰ The International Committee of the Red Cross (ICRC) challenged the usefulness of such precision with the argument that lethality is not an inherent property of a weapon but depends on the weapon, how it is used in practice and the vulnerability of the victim.¹¹ For instance, so-called non-lethal weapons have been shown to be lethal in the past.

Ethical and sociological concerns

The concept that it could in any circumstance be acceptable to delegate the right to decide on life and death to a machine was partly a contested issue, but a significant number of participants expressed serious doubts as to whether autonomous weapons systems would ever have the capacity for

⁵ France, ‘Intervention générale’ [General remark], CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014; and USA, ‘US delegation opening statement’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014.

⁶ Simon-Michel, J. H., France, ‘Aspects techniques des SALA’ [Technical aspects of LAWS], CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Session on technical issues, Geneva, 13 May 2014.

⁷ Sweden, ‘Remark by Sweden at the Expert Meeting on Laws at the CCW (General Debate) on 13 May 2014’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014.

⁸ Simon-Michel (note 4), p. 3.

⁹ Vignard, K., ‘Statement of the UN Institute for Disarmament Research at the CCW Meeting of Experts on Lethal Autonomous Weapons Systems’, Geneva, 13 May 2014.

¹⁰ Simon-Michel (note 6).

¹¹ International Committee of the Red Cross (ICRC), ‘Statement by ICRC on discussion about the lethality of weapons’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Session on technical issues, Geneva, 14 May 2014.

moral judgment, which is required to respect the basic principles of international humanitarian law—distinction, proportionality and precaution in attack.¹² States parties such as Austria, Germany and Sweden took the position that delegating the right to use lethal force to a machine is unacceptable from an ethical point of view, and emphasized the need to maintain meaningful human control over the decision.¹³ The Czech Republic argued, on the other hand, that to the extent that LAWS exceed human abilities and could ensure better efficiency and control in combat, they would ultimately contribute to reducing human loss and collateral damage on the battlefield.¹⁴

Legal concerns

All participants agreed that the development and use of LAWS should be in compliance with international humanitarian law. Of primary concern to the CCW participating states was the issue of the compatibility or incompatibility of LAWS with existing international law.

In addition to the question of the compatibility of LAWS with principles such as distinction, proportionality and precaution, noted above, another area of focus was accountability in cases where LAWS were used. Delegations had different interpretations. For Germany, the question of who or what is accountable—the machine, the programmer, the producer, the military commander who ordered the mission, the military operator in charge of oversight, or the state—remained a contentious issue.¹⁵ For Sweden, however, it was beyond dispute that, in the final analysis, states are legally responsible for the use of weapons in war, regardless of whether (a) the weapons are ‘autonomous’; or (b) the decision to use force was dispersed among a growing number of actors (the machine, the programmer, the operator and the military command).¹⁶

Representatives from civil society, including the NGO Human Rights Watch, raised the issue of the compatibility of LAWS with international human rights law.¹⁷ Of particular importance was whether and how the use

¹² The principles of discrimination and proportionality are codified in Protocol I Additional to the 1949 Geneva Convention (note 3), in particular Article 57.

¹³ Austria, ‘Closing statement’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 16 May 2014; Biontino, M., Germany, ‘Statement Wrap-up Session by Michael Biontino’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 16 May 2014; and Sweden, ‘Swedish remarks’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Session on legal aspects, Geneva, 14 May 2014.

¹⁴ Mazal, J., Czech Republic, Statement at session on operational and military aspects, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 15 May 2014.

¹⁵ Marauhn, T., Germany, ‘An analysis of the potential impact of lethal autonomous weapons systems on responsibility and accountability for violations of international law’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Session on legal aspects, Geneva, 15 May 2014.

¹⁶ Sweden (note 13).

¹⁷ Goose, S., Human Rights Watch, ‘Statement by Human Rights Watch to the Convention on Conventional Weapons informal Meeting of Experts on lethal autonomous weapons systems, May 13

of LAWS could respect and be consistent with principles such as the right to life, human dignity, the right to protection against inhumane treatment and the right to a fair trial.

Many delegations more generally stressed the need for a legal review, which would look at the possible impact of LAWS on existing international law. Germany suggested, for instance, that further discussion on the implementation of weapons review, including Article 36 of Additional Protocol I (1977) to the 1949 Geneva Conventions, would be valuable.¹⁸

Military and security concerns

LAWS could be of possible use for military missions such as intelligence collection, rescue, protection of armed forces and civilians, logistics and transportation. Delegations and experts were more reserved regarding the relevance and impact of LAWS in combat missions. Dr Mark Hagerott from the US Naval Academy pointed out certain risks, including vulnerability to cyberattack, and challenges such as ensuring interoperability with allied forces and adaptation in a complex environment.¹⁹

Some states, including Austria and Germany, expressed a concern that progress towards autonomous weapon systems may slowly reduce restraint regarding the use of force, and increase the risk of war.²⁰ Both countries warned against the hazards associated with the proliferation among and use of these weapons by irresponsible actors (e.g. terrorist groups).²¹ Ireland noted that the potential use and abuse of autonomous weapons beyond the battlefield—for instance, in law enforcement—also deserved consideration.²²

The next steps

CCW states parties expressed different views on the question of how to move forward. However, most delegations agreed that continued consideration of the implications of LAWS was justified.

2014, delivered by Steve Goose, Director, Arms Division', CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014. International human rights law is largely codified in the International Bill of Human Rights, <<http://www.ohchr.org/EN/ProfessionalInterest/Pages/InternationalLaw.aspx>>.

¹⁸ Biontino, M., Germany, 'Statement on legal aspects by Ambassador Michael Biontino', CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 14 May 2014; and Protocol I Additional to the 1949 Geneva Convention (note 3).

¹⁹ Hagerott, M., 'Lethal autonomous weapons systems (LAWS): offering a framework and suggestions', CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Session on operational and military aspects, Geneva, 15 May 2014.

²⁰ Austria, 'General debate, statement by Austria', CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014; and Germany, 'General statement by Germany', CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014.

²¹ Austria (note 20); and Biontino (note 13).

²² Ireland, 'Irish general statement at the CCW informal consultations on lethal autonomous weapons', CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014.

As an interim measure, Austria proposed a moratorium on the testing and development of LAWS. It called on all states engaged in the development of LAWS to freeze existing programmes and asked those that are considering starting such development to refrain from doing so.²³ Spain responded that the proposal for a moratorium would be premature without defining, collectively, its scope and application.²⁴ France expressed clear opposition, arguing that such a moratorium would hamper research on civil application of autonomous systems, given that the technologies involved are inherently dual use.²⁵ Other major arms-producing countries with advanced technological capabilities related to LAWS, such as Israel and the USA, did not comment on the moratorium proposal.

Germany stressed that the international community should reach a common understanding that it is vital to maintain human control over the decision to kill another human being.²⁶ In that context, France and the United Kingdom emphasized that it was relevant and important to pursue the discussion within the framework of the CCW.²⁷

The November Meeting of the High Contracting Parties to the CCW

The report from the informal Meeting of Experts on LAWS was positively welcomed at the November 2014 meeting of states parties to the CCW in Geneva. Most delegations that expressed a view reaffirmed the need to deepen the discussion.²⁸ Russia was a notable exception as it voiced serious doubt as to ‘the wisdom of continuing the discussion work on this topic’.²⁹

France expressed a desire to see more debate on the legal and technical aspects, highlighting the importance of clarifying the notion of ‘autonomy’.³⁰ The Netherlands stressed the value of further exploring the concept of ‘meaningful human control’ in relation to the targeting process.³¹ Sierra

²³ Austria (note 13).

²⁴ Spain, ‘Intervención de la delegación Española’ [Statement of the Spanish delegation], CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 13 May 2014.

²⁵ France (note 5).

²⁶ Germany (note 20).

²⁷ France (note 5); and UK, ‘United Kingdom statement to the CCW Meeting of Experts on Lethal Autonomous Weapon Systems’, CCW Meeting of Experts on Lethal Autonomous Weapons Systems, Geneva, 16 May 2014.

²⁸ The following regional and country delegations participated in the discussions on LAWS: Austria, Croatia, Cuba, EU, France, India, Ireland, Israel, Japan, South Korea, Netherlands, Russia, Sierra Leone, Spain, Sweden and Switzerland. The following NGO delegations also participated: Human Rights Watch, International Committee for Robot Arms Control (ICRAC) and United Nations Institute for Disarmament Research (UNIDIR). Documents used as the basis for discussion in this section are available at the website of the United Nations Office at Geneva, <[http://www.unog.ch/80256EE600585943/\(httpPages\)/700BD7373A1FE2BCC12573CF005AFC00?OpenDocument](http://www.unog.ch/80256EE600585943/(httpPages)/700BD7373A1FE2BCC12573CF005AFC00?OpenDocument)>.

²⁹ Statement by the Russian Federation, Meeting of the High Contracting Parties to the CCW, Geneva, 13 Nov. 2014.

³⁰ Statement by France, Meeting of the High Contracting Parties to the CCW, Geneva, 13 Nov. 2014.

³¹ Statement by the Netherlands, Meeting of the High Contracting Parties to the CCW, Geneva, 13 Nov. 2014.

Leone,³² on the other hand, called for greater consideration of the human rights dimensions and recommended that states parties to the CCW consider a hybrid disarmament/human rights forum as part of future efforts.³²

Israel, which did not express a position during the Meeting of Experts in May 2014, welcomed further debate, arguing that serious legal discussion could not be summed up in ‘sweeping, non-nuanced, clear-cut statements . . . The legality of each system should be examined on a case-by-case basis’.³³ India expressed its desire to maintain the broad character of the discussion, restating that consensus had not yet been reached on key terms.³⁴

CCW states parties agreed to continue the dialogue on the governance framework for LAWS during 2015. They approved the organization of a five-day long informal meeting of experts, scheduled for April 2015, which should generate greater common understanding of the key technical, ethical and legal issues at stake.³⁵ The current state of discussion indicates, however, that states parties are unlikely to provide any substantive international arms control agreement or legal measures on LAWS in 2015.

The Convention on Cluster Munitions

The objectives of the 2008 Convention on Cluster Munitions (CCM) are to prohibit the use, production, transfer and stockpiling of cluster munitions that cause unacceptable harm to civilians, and to establish a framework for cooperation and assistance that ensures adequate provision of care and rehabilitation for victims, clearance of contaminated areas, mine risk education and destruction of stockpiles.³⁶ A total of 4 states ratified the CCM in 2014: Belize, Republic of the Congo, Guinea and Guyana, bringing the total number of states parties to 89 in January 2015. A further 27 states are signatories but have yet to ratify the convention.³⁷ Before 2014 Belize was the last remaining Central American state not to have acceded to the CCM. Following Belize’s accession, Central America is now the first subregion

³² Statement by Sierra Leone, Meeting of the High Contracting Parties to the CCW, Geneva, 13 Nov. 2014.

³³ Statement by Israel, Meeting of the High Contracting Parties to the CCW, Geneva, 13 Nov. 2014.

³⁴ Statement by India, Meeting of the High Contracting Parties to the CCW, Geneva, 13 Nov. 2014.

³⁵ United Nations Office at Geneva, ‘2015 Meeting of Experts on LAWS’, [n.d.], <[http://www.unog.ch/80256EE600585943/\(httpPages\)/6CE049BE22EC75A2C1257C8D00513E26?OpenDocument](http://www.unog.ch/80256EE600585943/(httpPages)/6CE049BE22EC75A2C1257C8D00513E26?OpenDocument)>.

³⁶ Convention on Cluster Munitions (CCM), opened for signature 3 Dec. 2008, entered into force 1 Aug. 2010, <<http://treaties.un.org/Pages/CTCTreaties.aspx?id=26>>. For a summary and other details of the CCM see annex A, section I, in this volume.

³⁷ Belize and Guyana were not signatories to the CCM prior to ratification. Palestine acceded to the CCM on 2 Jan. 2015. See <<http://www.clusterconvention.org/files/2015/01/Palestine.pdf>>; and United Nations Office at Geneva, ‘Signatories and ratifying states’, <<http://www.unog.ch/80256EE600585943/%28httpPages%29/67DC5063EB530E02C12574F8002E9E49?OpenDocument>>.

free of cluster munitions.³⁸ None of the four new states parties is contaminated with cluster munitions, or is known to have used or produced such weapons in the past. With the exception of Guinea, which reportedly received a transfer of cluster munitions from Moldova in 2000, none of the states has stockpiles of cluster munitions.³⁹ Furthermore, none of the four states is likely to play a role in providing assistance to other states in meeting their obligations, at least in the near to medium term. The CCM imposes few direct obligations on states parties that have recently joined. Despite the fact that the CCM continues to attract new states parties, all the main producers and users of cluster munitions remain outside of the CCM.

In 2014 destruction of cluster munitions under the CCM continued among the states parties that hold national stockpiles. Notably, Denmark completed its stockpile destruction of cluster munitions in March 2014.⁴⁰

Cluster munitions use was confirmed in South Sudan, Syria and Ukraine during 2014. None of the three countries is a state party to the CCM. In Syria, Human Rights Watch reported the use of cluster munitions by the Syrian Government in the first half of 2014. Cluster munitions are reported to have caused hundreds of civilian deaths, including in the town of Kafr Zita, Hama province on 12–13 February 2014 and in Manbij, Aleppo province, on 21 August 2014.⁴¹ Since mid-2012 Syrian Government forces have used cluster munitions extensively throughout the country, causing at least 1584 casualties from cluster munition attacks and unexploded submunitions in 2012 and 2013.⁴² Almost all of the identified victims were civilians. In August 2014 Kurdish officials issued the first report on the use of

³⁸ Cluster Munition Coalition, 'Belize accession completes cluster bomb-free Central America', 2 Sep. 2014, <<http://www.stopclustermunitions.org/en-gb/media/news/2014/belize-accession-completes-cluster-bomb-free-central-america.aspx>>.

³⁹ Information on use, production transfer and stockpiling of cluster munitions in each of the 4 states is available at International Campaign to Ban Landmines, 'Country profiles', <http://www.the-monitor.org/index.php/cp/display/region_profiles>. For more details of Guinea's cluster munitions stockpile see International Campaign to Ban Landmines, 'Guinea ratifies global cluster bomb ban', 22 Oct. 2014, <<http://www.stopclustermunitions.org/en-gb/media/news/2014/guinea-ratifies-global-cluster-bomb-ban.aspx>>.

⁴⁰ Danish Ministry of Foreign Affairs, 'Denmark leads global disarmament, destroys cluster munitions', Press release, 20 Mar. 2014, <<http://um.dk/en/news/newsdisplaypage/?newsID=7ABB4C60-A861-49C1-B727-76FDBC4EDA09>>. Another significant development in this area occurred in Oct. 2013 when the Former Yugoslav Republic of Macedonia completed its stockpile destruction. Convention on Cluster Munitions, 'Macedonia completes stockpile destruction', 5 Nov. 2013, <<http://www.clusterconvention.org/category/news/page/3/>>.

⁴¹ Human Rights Watch, 'Syria: new deadly cluster munition attacks powerful rocket attacks cause casualties, long-term danger', 19 Feb. 2014, <<http://www.hrw.org/news/2014/02/18/syria-new-deadly-cluster-munition-attacks>>; and Human Rights Watch, 'Syria: evidence of Islamic State cluster munition use, continued government use as well', 1 Sep. 2014, <<http://www.hrw.org/news/2014/09/01/syria-evidence-islamic-state-cluster-munition-use>>.

⁴² International Campaign to Ban Landmines, *Cluster Munitions Monitor 2014* (International Campaign to Ban Landmines—Cluster Munition Coalition: Geneva, Aug. 2014), pp. 1, 5; and International Campaign to Ban Landmines, 'Syria casualties and victim assistance', 20 Dec. 2014, <http://www.the-monitor.org/index.php/cp/display/region_profiles/theme/3907>.

cluster munitions by Islamic State (IS) forces. Evidence supports the allegation that IS forces used ground-fired cluster munitions in at least one location in northern Syria on 12 July and 14 August 2014.⁴³ A total of seven types of cluster munitions have been recorded as used in Syria since 2012, six of them made in Russia and one type produced in Egypt. There is no information about how Syrian Government or IS forces have gained access to the weapons.⁴⁴

In eastern Ukraine, where armed conflict has flared between the Ukrainian Government and pro-Russian separatists, Human Rights Watch has documented the use of cluster munitions in 12 incidents in a number of locations in the past year. At least six people were killed in the attacks, including a staff member of the ICRC. According to Human Rights Watch, evidence strongly indicates that Ukrainian Government forces were responsible for several of the cluster munition attacks, including on central Donetsk in early October 2014. Other evidence collected by the independent organization suggests that pro-Russian rebel forces have also used cluster munitions in the conflict. The Ukrainian Government has neither denied nor admitted to using cluster munitions in the ongoing conflict.⁴⁵

The UN Mission to South Sudan reported use of cluster munitions in South Sudan at the beginning of 2014.⁴⁶ The UN Mine Action Service (UNMAS) found cluster munition remnants in the southern state of Jonglei, in an area not known to be contaminated with cluster munitions and where extensive fighting broke out in December 2013. No party to the conflict has yet admitted responsibility. According to UNMAS, the site was contaminated with the remnants of up to 8 RBK-250-275 cluster bombs, which are dropped by fixed-wing aircraft or helicopters.⁴⁷ Each such cluster bomb normally contains 147 AO-1Sch anti-personnel fragmentation bomblets. These cluster bombs are used against personnel and light material targets such as aircraft and motor transports. Russia is known to

⁴³ Human Rights Watch, 'Syria: evidence of Islamic State cluster munition use, continued government use as well' (note 41).

⁴⁴ Human Rights Watch, 'Syria: new deadly cluster munition attacks powerful rocket attacks cause casualties, long-term danger' (note 41).

⁴⁵ Human Rights Watch, 'Ukraine: widespread use of cluster munitions, government responsible for cluster attacks on Donetsk', 20 Oct. 2014, <<http://www.hrw.org/news/2014/10/20/ukraine-widespread-use-cluster-munitions>>; Office of the United Nations High Commissioner for Human Rights, 'Report on the human rights situation in Ukraine', 15 Nov. 2014, <http://www.ohchr.org/Documents/Countries/UA/OHCHR_seventh_reportUkraine20.11.14.pdf>; and 'Russia calls on West to convince Kiev to stop using cluster bombs: foreign ministry', Sputnik News, 23 Oct. 2014, <<http://sputniknews.com/world/20141023/194486450.html>>. For background on the crisis in Ukraine see chapter 3 in this volume.

⁴⁶ Simuusa, W. C., Statement by the President of the Fourth Meeting of States Parties CCM condemning use of cluster munitions in South Sudan, 14 Feb. 2014, <<http://www.clusterconvention.org/files/2014/02/Message-President-4MSP-use-cluster-munitions-in-South-Sudan.pdf>>.

⁴⁷ Human Rights Watch, 'South Sudan: investigate new cluster bomb use, identify those responsible for using banned weapons', 15 Feb. 2014, <<http://www.hrw.org/news/2014/02/14/south-sudan-investigate-new-cluster-bomb-use>>.

have produced and exported such bombs in the past, although no trade in the weapons has recently been reported.⁴⁸ Both the Sudan People's Liberation Movement/Army and the Uganda People's Defence Force, which is supporting the South Sudanese forces, have the air power to deliver air-dropped cluster munitions of the kind identified. The opposition forces are not believed to possess the means necessary to deliver these bombs.⁴⁹ Human Rights Watch and the Cluster Munition Monitor have listed Uganda as a stockpiler of cluster munitions in the past.⁵⁰ Uganda is a signatory to the CCM and denies any involvement in the use of cluster munitions.

The Anti-Personnel Mines Convention

The 1997 Anti-Personnel Mines (APM) Convention prohibits, among other things, the use, development, production and transfer of anti-personnel mines.⁵¹ The convention continues to record substantial achievements in reducing mine casualties and clearing land of landmine contamination. The *Landmine Monitor* reported a 24 per cent reduction in casualties from 2012 to 2013.⁵² Oman ratified the APM Convention in 2014, bringing the total number of states parties to 162 by the beginning of 2015.⁵³

The Third Review Conference of the APM Convention in Maputo, Mozambique, in June 2014 marked the 15th anniversary of the first APM meeting of states parties, convened in the same city in 1999. Mozambique—which was previously heavily affected by anti-personnel landmines and was expected to be mine-free by the end of 2014—is illustrative of the remarkable achievements of the APM Convention during a relatively short period of time.⁵⁴ At the end of the conference, states parties adopted a revision of the Maputo Declaration. In the new declaration, states parties commit to 'the fullest extent possible' to meet the goal of a mine-free world by 2025.⁵⁵

⁴⁸ Collective Awareness to Unexploded Ordnance (CAT-UXO), <<http://www.cat-uxo.com/#/ao-lsch-submunition/4572104487>>.

⁴⁹ Human Rights Watch (note 47).

⁵⁰ International Campaign to Ban Landmines, 'Uganda: Cluster Munition Ban Policy', 21 Oct. 2010, <http://www.the-monitor.org/index.php/cp/display/region_profiles/theme/585#_ftnref7>, footnote 7.

⁵¹ For a summary and other details of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (APM Convention) see annex A, section I, in this volume.

⁵² International Campaign to Ban Landmines, *Landmine Monitor 2014* (International Campaign to Ban Landmines—Cluster Munition Coalition: Geneva, Dec. 2014), p. 2.

⁵³ United Nations Office at Geneva, 'States parties and signatories', [n.d.], <<http://www.unog.ch/80256EE600585943/%28httpPages%29/6E65F97C9D695724C12571C0003D09EF?OpenDocument>>.

⁵⁴ National Demining Institute, 'Mine clearance progress', [n.d.], <<http://www.ind.gov.mz/en/ourwork/progress.html>>.

⁵⁵ APM Convention, Third Review Conference, 'Maputo+15 declaration of the states parties to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction', 27 June 2014, <<http://www.maputoreviewconference.org/documents/>>.

In 2014 the USA—one of the states not party to the APM Convention—made two statements demonstrating a shift in its national policy towards the convention. In June the USA announced at the Third Review Conference that it would no longer produce or acquire anti-personnel landmines.⁵⁶ In September the US Department of State declared that it would refrain from using anti-personnel landmines outside of the Korean Peninsula.⁵⁷ Short of the USA ratifying the CCM (which would be very difficult at the this time due to the weak support in Congress of President Obama's Administration), it is clear that the USA aims to distance itself from current known users of anti-personnel landmines, by aligning its national practices with the APM Convention.

Meanwhile, state actors in Syria, Myanmar and the disputed Nagorno-Karabakh region (none of which is party to the APM Convention) allegedly used landmines in 2014. Non-state actors used anti-personnel mines or 'victim-activated improvised explosive devices' in Afghanistan, Colombia, Libya, Myanmar, Pakistan, Syria and Yemen.⁵⁸ In 2014 the Ukrainian Government accused Russia of using anti-personnel landmines in Ukraine, along the border of the Crimea region. The Government of Ukraine further accused Russian armed forces of stealing 605 anti-personnel landmines from a military depot in Crimea, which had been kept for training purposes. Ukraine continues to have problems meeting its destruction deadlines under the APM Convention; Russia is not a state party to the convention.⁵⁹

⁵⁶ White House, 'Statement by NSC spokesperson Caitlin Hayden on U.S. anti-personnel landmine Policy', Press release, 27 June 2014, <<http://www.whitehouse.gov/the-press-office/2014/06/27/statement-nsc-spokesperson-caitlin-hayden-us-anti-personnel-landmine-pol>>.

⁵⁷ US Department of State, 'U.S. landmine policy', Press statement, 23 Sep. 2014, <<http://www.state.gov/r/pa/prs/ps/2014/09/231995.htm>>.

⁵⁸ International Campaign to Ban Landmines (note 52), p. 1.

⁵⁹ Statement by Permanent Mission of Ukraine to the United Nations Office and other International Organizations in Geneva, no. 151/017, APM Convention, Third Review Conference, p. 3, <<http://www.maputoreviewconference.org/fileadmin/APMBC-RC3/3RC-Ukraine-information.pdf>>. For background discussion on the crisis in Ukraine see chapter 3 in this volume.