



**CAMPAIGN TO STOP
KILLER ROBOTS**



Report on Activities

Convention on Conventional Weapons Group of Governmental Experts meeting on lethal
autonomous weapons systems

United Nations Geneva

9-13 April 2018

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About this report

This report details activities by the Campaign to Stop Killer Robots at the second meeting of the Convention on Conventional Weapons (CCW) Group of Governmental Experts on lethal autonomous weapons systems held at the United Nations (UN) in Geneva on 9-13 April 2018.

The report records the campaign's contributions, reviews the participation of governments in these meetings, and its annexes provide a summary of country views, the campaign's delegation list and a round-up of media coverage.

Campaign coordinator Mary Wareham of Human Rights Watch prepared this report, drawing from statements posted online by the CCW implementation support unit and WILPF's Reaching Critical Will Project. The report also draws on notes of the deliberations taken by Bonnie Docherty of Human Rights Watch and her Harvard Law School's International Human Rights Clinic students Paras Shah and Ann Madding. Allison Pytlak of WILPF's Reaching Critical Will Project also shared her notes of the meeting.

Human Rights Watch interns Laetitia Hua and Kevin Klyman helped to compile this report. Media consultant Sigrid Heiberg provided the annex of media coverage.

The Campaign to Stop Killer Robots is grateful for the generous donor support that enabled us to have a strong presence at the CCW meetings and to conduct outreach in the lead-up and afterwards.

This report is available on the Campaign to Stop Killer Robots website at: www.stopkillerrobots.org/statements



Mary Wareham
Washington DC
28 June 2018

Report on Activities

1. Summary Overview

A total of [84 countries](#) participated in the April 2018 GGE meeting.¹ Other participants included UN agencies such as UNIDIR, the International Committee of the Red Cross (ICRC), Campaign to Stop Killer Robots, and various academics. This marked the fifth CCW meeting on lethal autonomous weapons systems since 2014 and the second of the Group of Governmental Experts, established in 2016.²

During the meeting, there was significant convergence on the urgent need to negotiate new international law to retain meaningful human control over weapons systems and the use of force. For example, Austria and other states proposed that the CCW agree in November to a mandate to negotiate a legally-binding instrument (i.e. protocol or treaty) on fully autonomous weapons. A group of African states [recommended](#) concluding a legally binding instrument “at the earliest” and found that “fully autonomous weapons systems or LAWS that are not under human control should be banned.” A [working paper submitted to the meeting by the Non-Aligned Movement](#) called for a “legally binding international instrument stipulating prohibitions and regulations on lethal autonomous weapons systems.” The campaign invites national statements affirming support for these objectives expressed in group statements.

Virtually all states that spoke during the meeting stressed the necessity of retaining human control over weapons systems and the use of force. The concept of human control, be it meaningful or appropriate or necessary or significant or some other formulation, is now firmly at the heart of the debate over what to do about killer robots. While there are divergent views on exactly what meaningful human control constitutes, such differences are best addressed during negotiations of a new instrument.

During the meeting, the campaign’s list [of countries calling for a ban on fully autonomous weapons rose to 26](#), after Austria, China, Colombia, and Djibouti expressed their support for a ban in national statements.³ Most states that previously expressed support for a ban repeated that position during the meeting, particularly Brazil, Chile, Costa Rica, Cuba, Egypt, and Pakistan. At the end of the meeting, China for the first time expressed its desire to negotiate and conclude a new CCW

¹ According to [the list of participants issued by the UN on 24 April](#), the 84 states attending the April meeting were comprised of 79 high contracting parties (Albania, Algeria, Argentina, Australia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cuba, Czechia, Denmark, Djibouti, Dominican Republic, Egypt, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Holy See, Honduras, Hungary, India, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Lao PDR, Latvia, Lebanon, Lithuania, Luxembourg, Mexico, Montenegro, Morocco, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Serbia, Sierra Leone, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, State of Palestine, Sweden, Switzerland, Togo, Turkey, Uganda, UK, US, Venezuela), signatory Egypt, and three non-signatories (Ghana, Myanmar, and Oman).

² Previously, 86 states participated in the last CCW meeting on lethal autonomous weapons in November 2017, while 94 attended in 2016, 90 in 2015, and 87 in 2014.

³ A total of 26 states support the call to ban fully autonomous weapons: Algeria, Argentina, Austria, Bolivia, Brazil, Chile, China, Colombia, Costa Rica, Cuba, Djibouti, Ecuador, Egypt, Ghana, Guatemala, Holy See, Iraq, Mexico, Nicaragua, Pakistan, Panama, Peru, State of Palestine, Uganda, Venezuela, and Zimbabwe.

protocol to prohibit the use of fully autonomous lethal weapons systems. In response to the campaign's queries, the delegation of China [stated that it supports](#) banning use of fully autonomous weapons, but not development or production.

During the meeting, France, Israel, Russia, United Kingdom, and United States explicitly rejected any move to negotiate new international law on fully autonomous weapons. Approximately two dozen mostly European states indicated they see no need to conclude new international law at this time.

2. Lead-up to the CCW Group of Governmental Experts Meeting

At the CCW's annual meeting in November 2017, nations agreed to continue a Group of Governmental Experts (GGE) on lethal autonomous weapons systems (LAWS) established in 2016. They approved Ambassador Amandeep Singh Gill of India to continue as GGE chair and scheduled two GGE meetings in 2018, on 9-13 April and 27-31 August. Unlike other GGE processes, a GGE at the CCW is open to all interested states plus UN agencies, the ICRC, and registered NGOs.

There were several events and initiatives on killer robots in the period leading up to the April 2018 GGE meeting:

- On 27 November, the Danish Institute for International Studies held a public seminar on autonomous weapons with the GGE chair, CCW staff, SIPRI, and campaign coordinator Mary Wareham, who published an [article in *Politiken*](#).
- On 6 December, 116 scientists working in fields including artificial intelligence, robotics and computer science [issued an open letter](#) calling on Belgium to support a ban on weapons systems that lack meaningful human control.
- On 15 February, the high-level Munich Security Conference [considered security concerns raised by fully autonomous weapons](#) and artificial intelligence in a panel that included Campaign to Stop Killer Robots coordinator Mary Wareham.
- In a 5 March letter to the Republic of Korea's Minister of Foreign Affairs, Kang Kyung-Wha, the Campaign to Stop Killer Robots [urged the government to support the call to ban fully autonomous weapons](#) and address concerns raised by a new "Research Center for the Convergence of National Defense and Artificial Intelligence" opened by KAIST and defense manufacturer Hanwha Systems Co., Ltd.
- In a 13 March letter, the Campaign to Stop Killer Robots [invited Google to endorse the call to ban fully autonomous weapons](#) and answer concerns over its involvement in Project Maven.
- On 27 March, the African Union and African states held a seminar in Geneva to consider greater regional collaboration to address concerns over fully autonomous weapons.
- On 2 April, the Campaign to Stop Killer Robots [wrote to the Minister of Defense in France seeking clarification on the country's policy](#) on fully autonomous weapons systems.
- On 7-8 April, the Campaign to Stop Killer Robots held a Steering Committee meeting and strategy and messaging session with campaigners attending the CCW meeting in Geneva.
- On 5 April, after [artificial intelligence experts issue a letter calling for a boycott of Korea Advanced Institute of Science and Technology](#) (KAIST), the university's president, Sung-

Chul Shin, [issued a statement](#) clarifying that “KAIST does not have any intention to engage in development of lethal autonomous weapons systems.”

3. CCW Group of Governmental Experts Meeting

The GGE chair [invited states to prepare](#) substantively for the GGE meetings by producing and submitting working papers in advance. The CCW received working papers from [Argentina](#), [China](#), [Poland](#), [Russia](#), [United States](#), the [Non-Aligned Movement](#), and the [ICRC](#). The CCW does not accept working papers from NGOs but its website linked to a Campaign to Stop Killer Robots [Briefing Note](#) to guide states (also available in [French](#) and [Spanish](#)).

The [agenda for the April 2018 GGE meeting](#) followed three matters identified by the chair during the first GGE meeting in November 2017: 1) characterization of the systems under consideration in order to promote a common understanding on concepts and characteristics [working definitions] of lethal autonomous weapons systems; 2) human-machine interaction in the development, deployment and use of emerging technologies in the area of lethal autonomous weapons systems; and 3) possible options for addressing the humanitarian and international security challenges posed by lethal autonomous weapons systems.

In accordance with the provisional [programme of work](#), the GGE meeting began on Monday, 9 April with a general exchange of views. There was one panel of invited experts on Thursday morning to review the “potential military applications of related technologies.” CCW delegates spent most of the week in a series of three-hour sessions, starting with three sessions on characteristics or definitions of lethal autonomous weapons systems, three sessions on human-machine interaction and a session on the “way ahead” on Friday.

States participating in the April meetings did not take any formal decisions. The aim is for states to agree at the next GGE meeting on a report of the 2018 GGE containing key findings and proposals on the way ahead. Then states will adopt another CCW mandate on lethal autonomous weapons systems at the CCW’s annual Meeting of High Contracting Parties on 21-23 November 2018, under the presidency of Ambassador Jānis Kārkliņš of Latvia.

On 25 April, GGE chair Ambassador Gill released a 12-page [summary](#) of the April meeting, which he said considered “lethal weapons systems based on emerging technologies related to autonomous intelligent systems.” The summary contains the chair’s findings from the 12 April expert panel on “potential military applications of related technologies.”

The summary describes four broad approaches identified by the chair for the characterization or definition of fully autonomous weapons.⁴ The summary considers “commonalities” among the

⁴ 1) a separative approach in which “characteristics and concepts not relevant to the objectives and purposes of the CCW are set aside...while gathering the characteristics and concepts that are definitely relevant to the objectives and purposes of the CCW”; 2) a cumulative approach in which “categories of characteristics are added to a master list and then concepts and characteristics therein are evaluated against certain technical, legal-humanitarian or political-security criteria to assess their relevance”; 3) an accountability approach, which “considers a set of characteristics related to the functions and type of decisions handed over to machines, and which avoids using levels of autonomy and other technical characteristics or categories related to the loss of human control”; and 4) a purpose oriented and effect-based approach, which “focuses on desirable and undesirable consequences of possible lethal weapons systems based on emerging autonomous intelligent systems and technologies.”

“different terminologies and conceptualisations” on human control shared by delegations. It notes that “regardless of the approach, delegations reaffirmed the essential importance of human control, supervision, oversight or judgement in the use of lethal force” and finds that “the concepts of meaningful human control and human judgment need to be further elaborated and clarified.”

The summary affirms the “need for further deepening the engagement in August” on discussion of “pathways” forward. It broadly identifies the following options for states to address the concerns raised by lethal autonomous weapons systems: 1) Negotiate and adopt new international law; 2) Draft and agree on politically binding measures; and 3) Explore transparency and confidence building measures under existing international law. It notes the view that new legally-binding provisions are “necessary for addressing the humanitarian and international security challenges” and finds that such provisions could encompass “prohibitions and restrictions of the type already seen in the context of the objectives and purposes of the CCW.”

4. Campaign activities

In the lead-up to the April meeting, campaign coordinator Mary Wareham met with GGE chair Ambassador Gill, CCW president Ambassador Kārkliņš, and key states in Geneva on 12-13 February. The campaign published and distributed its first “Briefing Note,” which [encouraged states](#) to come to the CCW meeting prepared to:

1. Elaborate the key characteristics for a working definition of lethal autonomous weapons systems, which the campaign views as systems operating without meaningful human control in the “critical functions” of identifying, selecting and applying force to targets;
2. Identify the relevant “touchpoints” of human/machine interaction through which the necessary human control over weapons systems can be enacted and ensured; and
3. Outline the preferred pathway forward, resisting measures that fall short of a legally binding instrument and calling for negotiations to begin.

The Campaign to Stop Killer Robots delegation to the April 2018 CCW meeting consisted of more than two-dozen representatives from Cameroon, Canada, Colombia, Egypt, Finland, Germany, Japan, the Netherlands, South Africa, Spain, Switzerland, UK, and US. (See Annex II)

During the April 2018 CCW meetings, campaign representatives met with delegates from more than 50 countries. The campaign convened two side event briefings during the April 2018 GGE meeting. The first on [Monday, 9 April](#) consisted of presentations by representatives from campaign co-founders Article 36, ICRAC, PAX, and WILPF as well as remarks by guest speaker Johan Henrik Andresen, chair of the Council on Ethics of the trillion-dollar Norwegian Government Pension Fund Global. The second on [Wednesday, April 11](#) featured presentations by representatives from HRW and ICRAC and remarks by guest speaker Paul Scharre of the Center for a New American Security (CNAS), author of the new book *Army of None: Autonomous Weapons and the Future of War*.

The KAIST boycott call attracted media interest in the lead-up to the meeting. Campaign coordinator Mary Wareham and Richard Moyes of Article 36 addressed a media briefing convened by the UN Geneva correspondent’s association ACANU on 9 April. On 5 April, the campaign published a 1:09-minute animated film entitled “[No country would be safe from fully autonomous weapons](#)” and produced by London company Clarity that has since been subtitled into Arabic,

French, Japanese, and Spanish. This and other outreach resulted in significant media coverage. (See Annex III)

Campaign co-founder WILPF's Reaching Critical Will [published five editions](#) of its CCW Report newsletter for distribution to CCW delegates. The campaign published a web post [before the GGE meeting](#) and [at the end of the week](#).

For more information, please see:

- CCW 2018 [GGE website](#), [audio recordings](#)
- WILPF Reaching Critical Will [2018 CCW webpage](#)
- Campaign to Stop Killer Robots [website](#) and [Flickr site](#) (photos)
- Mines Action Canada daily [YouTube](#) updates

Annex I: Country Views



Country Views on Killer Robots 21 May 2018

The Campaign to Stop Killer Robots monitors state support for negotiating new international law to address concerns over fully autonomous weapons, including positions on the call for a ban.

Who wants to negotiate new international law on killer robots?

At least 32 states have expressed a desire to negotiate new international law—a new treaty or CCW protocol—to address concerns over fully autonomous weapons:

1. Algeria
2. Argentina
3. Austria
4. Bolivia
5. Brazil
6. Chile
7. China*
8. Colombia
9. Costa Rica
10. Cuba
11. Djibouti
12. Ecuador
13. Egypt
14. Ghana
15. Guatemala
16. Holy See
17. Iraq
18. Kazakhstan
19. Mexico
20. Nicaragua
21. Pakistan
22. Panama
23. Peru
24. Philippines
25. Sierra Leone
26. South Africa

27. Sri Lanka
28. State of Palestine
29. Uganda
30. Venezuela
31. Zambia
32. Zimbabwe

On 9 April 2018, [a group of African states](#) recommended concluding a legally binding instrument “at the earliest” and found that “fully autonomous weapons systems or LAWS that are not under human control should be banned.” A March 2018 [working paper by the Non-Aligned Movement](#) calls for a “legally binding international instrument stipulating prohibitions and regulations on lethal autonomous weapons systems.” The campaign invites national statements affirming support for these objectives.

* China [states that its call](#) is to ban the use of fully autonomous weapons, but not their development or production.

Who is opposed to creating new international law on killer robots?

Approximately a dozen states indicate they do not support negotiating new international law on fully autonomous weapons:

Australia
Belgium
France
Germany
Israel
Republic of Korea
Russia
Spain
Sweden
Turkey
United States
United Kingdom

Who wants to ban killer robots?

Twenty-six countries are calling for a prohibition on fully autonomous weapons:

Alphabetical order

1. Algeria
2. Argentina
3. Austria
4. Bolivia
5. Brazil

6. Chile
7. China*
8. Colombia
9. Costa Rica
10. Cuba
11. Djibouti
12. Ecuador
13. Egypt
14. Ghana
15. Guatemala
16. Holy See
17. Iraq
18. Mexico
19. Nicaragua
20. Pakistan
21. Panama
22. Peru
23. State of Palestine
24. Uganda
25. Venezuela
26. Zimbabwe

Chronological order

- Pakistan on [30 May 2013](#)
- Ecuador on [13 May 2014](#)
- Egypt on [13 May 2014](#)
- Holy See on [13 May 2014](#)
- Cuba on [16 May 2014](#)
- Ghana on [16 April 2015](#)
- Bolivia on 17 April 2015
- State of Palestine on 13 November 2015
- Zimbabwe on [12 November 2015](#)
- Algeria on [11 April 2016](#)
- Costa Rica on [11 April 2016](#)
- Mexico on [13 April 2016](#)
- Chile on [14 April 2016](#)
- Nicaragua on 14 April 2016
- Panama on 12 December 2016
- Peru on 12 December 2016
- Argentina on 12 December 2016
- Venezuela on 13 December 2016
- Guatemala on 13 December 2016
- Brazil on 13 November 2017
- Iraq on 13 November 2017

- Uganda on 17 November 2017
- Austria on 9 April 2018
- China on 13 April 2018
- Djibouti on 13 April 2018
- Colombia on 13 April 2018

Who has spoken on the topic of killer robots?

A total of 85 countries have publicly elaborated their views on lethal autonomous weapons systems in a multilateral forum: 44 states in 2013, eight in 2014, fifteen in 2015, fourteen in 2016, and three in 2017, and one in 2018.

Most states spoke at the Convention on Conventional Weapons as well as the United Nations General Assembly. Almost two-dozen states spoke during the first debate on the topic in May 2013 at the Human Rights Council.

1. Algeria on 30 May 2013
2. Argentina on 30 May 2013
3. Australia on 14 November 2013
4. Austria on 30 May 2013
5. Bangladesh on 21 October 2016
6. Belarus on 14 November 2013
7. Belgium on 11 November 2013
8. Bolivia on 17 April 2015
9. Botswana on 27 October 2015
10. Brazil on 30 May 2013
11. Bulgaria on 23 October 2014
12. Burkina Faso on 23 October 2017
13. Cambodia on 13 November 2017
14. Cameroon on 12 December 2016
15. Canada on 11 November 2013
16. Chile on 13 April 2015
17. China on 30 May 2013
18. Colombia on 17 April 2015
19. Costa Rica on 29 October 2013
20. Croatia on 15 November 2013
21. Cuba on 30 May 2013
22. Czech Republic on 13 May 2014
23. Denmark on 13 April 2015
24. Djibouti on 13 April 2018
25. Ecuador on 29 October 2013
26. Egypt on 30 May 2013
27. Estonia on 31 August 2016
28. Finland on 22 October 2014
29. France on 30 May 2013
30. Germany on 30 May 2013

31. Ghana on 14 November 2013
32. Greece on 29 October 2013
33. Guatemala on 16 May 2014
34. Holy See on 14 November 2013
35. Hungary on 7 October 2016
36. India on 30 October 2013
37. Indonesia on 30 May 2013
38. Iran on 30 May 2013
39. Iraq on 13 November 2015
40. Ireland on 29 October 2013
41. Israel on 15 November 2013
42. Italy on 14 November 2013
43. Japan on 29 October 2013
44. Jordan on 31 August 2016
45. Kazakhstan on 13 November 2015
46. Kuwait on 26 October 2015
47. Latvia on 21 October 2016
48. Lebanon on 26 October 2015
49. Lithuania on 14 November 2013
50. Madagascar on 14 November 2013
51. Mali on 13 May 2014
52. Mexico on 30 May 2013
53. Moldova, Rep. on 12 December 2016
54. Montenegro on 12 December 2016
55. Morocco on 30 May 2013
56. Myanmar on 10 October 2017
57. Netherlands on 29 October 2013
58. New Zealand on 30 October 2013
59. Nicaragua on 13 November 2015
60. Norway on 13 May 2014
61. Pakistan on 30 May 2013
62. Palestine on 13 November 2014
63. Panama on 12 December 2016
64. Peru on 12 December 2016
65. Philippines on 14 April 2016
66. Poland on 13 April 2015
67. Portugal on 14 October 2014
68. Romania on 26 October 2015
69. Russia on 30 May 2013
70. Sierra Leone on 30 May 2013
71. Slovakia on 12 December 2016
72. Slovenia on 12 December 2016
73. South Africa on 30 October 2013
74. South Korea on 14 November 2013
75. Spain on 11 November 2013
76. Sri Lanka on 13 April 2015

- 77. Sweden on 30 May 2013
- 78. Switzerland on 30 May 2013
- 79. Turkey on 14 November 2013
- 80. Ukraine on 14 November 2013
- 81. United Kingdom on 30 May 2013
- 82. United States on 30 May 2013
- 83. Venezuela on 13 December 2016
- 84. Zambia on 17 April 2015
- 85. Zimbabwe on 12 November 2015

Annex II: Campaign Delegation List



**CAMPAIGN TO STOP
KILLER ROBOTS**

Convention on Conventional Weapons
Group of Governmental Experts on lethal autonomous weapons systems
United Nations Geneva
9-13 April 2018

Campaign to Stop Killer Robots, @bankillerrobots

Head of Delegation: Ms. Mary Wareham, @marywareham

Amnesty International, @amnesty

Ms. Rasha Abdul Rahim, @Rasha_Abdul

Article 36, @article36

Mr. Richard Moyes, @rjmoyes

Ms. Maya Brehm, @schoggitaler

Association for Aid and Relief Japan, @aarjapan

Mr. Yuki Sakurai

Committee of 100 Finland (Suomen Sadankomitea ry) @sadankomitea

Ms. Minna Vähäsalo, @minnamvahasalo

Facing Finance, @FacingFinance

Mr. Thomas Küchenmeister

Ms. Vanessa Müller

Human Rights Watch, @hrw

Mr. Steve Goose

Ms. Bonnie Docherty

Ms. Mary Wareham

Ms. Paras Shah, @pshah518

Ms. Ann Madding

Mr. Johan Andresen, @ferdowner

Ms. Anne Gerd Haarr

Ms. Sigrid Heiberg, @sigridzh

Ms. Signe Tøra Karsrud

Prof. Toby Walsh, @TobyWalsh

International Committee for Robot Arms Control, @icracnet

Prof. Noel Sharkey, @NoelSharkey
Dr. Peter Asaro, @peterasaro
Dr. Thompson Chengeta, @DrThompsonLaw
Prof. Joaquín Rodríguez Álvarez
Prof. Roser Martínez Quirante
Dr. Steve Wright
Dr. Amanda Sharkey

Mines Action Canada, @MinesActionCan
Mr. Paul Hannon, @PCHannon
Ms. Erin Hunt, @erinlynnhunt

Norwegian Peace Foundation, @Fredslaget
Ms. Lene Grimstad, @LeneGrimstad

PAX, @PAXforpeace
Ms. Miriam Struyk, @MiriamStruyk
Mr. Daan Kayser, @DaanKayser
Mr. Frank Slijper, @FrankSlijper

Project Ploughshares, @ploughshares_ca
Ms. Branka Marijan, @brankamarijan

Protection
Mr. Ayman Sorour, @aymansorour

Pugwash Conferences on Science and World Affairs, @PugwashConfs
Ms. Johanna Friman

SEHLAC
Mr. Camilo Serna, @SehlaOrg

Women's International League for Peace and Freedom, @WILPF @RCW_
Ms. Allison Pytlak, @a_pytlak
Ms. Sylvie Ndongmo, @sndongo2005
Ms. Lenka Filipova

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Annex III: CCW Media Coverage



English - in chronological order

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