Report of the NGO Conference on the Campaign to Stop Killer Robots
Human Rights Action Centre
London
22 April 2013

This is a report on the conference for non-governmental organizations (NGOs) on the new Campaign to Stop Killer Robots, held in London on 22 April 2013, the day before the formal launch of the new international coalition. It contains statements made in the plenary sessions, including reports from the workshop discussions. A separate financial report is available on request. This report was prepared by the campaign's coordinator Mary Wareham of Human Rights Watch.

30 August 2013

About the NGO Conference

On Monday, 22 April 2013, the Steering Committee of the Campaign to Stop Killer Robots convened a conference for non-governmental organizations at Amnesty International UK's Human Rights Action Centre to discuss the new campaign and way forward. Approximately 65 campaigners from 30 NGOs attended, the majority from the UK, but activists from Austria, Canada, France, Germany, Japan, the Netherlands, Switzerland, and the US also participated.

The primary aim of the conference was to enable participants to find out more about the issue of fully autonomous weapons and campaign initiative, as well as strategize about the next steps for the campaign after its public launch. In the morning, small group workshops considered the technical, legal, policy, ethical, moral and other concerns with fully autonomous lethal weapons. In the afternoon, workshops discussed means and methods of campaigning, including international outreach, national campaigning, research needs, and messaging and communications. The workshops were conducted according to the Chatham House rule (on the record but not attributable).

The results of the conference—as contained in this report—are now being incorporated into a campaign-wide plan of action for the coming year.

For more information, please see
- Web story: http://www.stopkillerrobots.org/2013/04/first-ngo-conference/
- Photos: http://www.flickr.com/photos/stopkillerrobots/sets/72157633302889297/
- Short Film by Sharron Ward: http://www.youtube.com/watch?v=l51TKJ7FUto

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Opening Plenary

Welcome

Laura Boillot of Article 36 opened and chaired the opening plenary.

It's an exciting and historic day as it's not often that we come together to form a new international campaign. There is a great group of people here today, internationally and from the UK. We have come together because of a shared concern about fully autonomous weapons. The meeting is hosted by the Steering Committee of the Campaign to Stop Killer Robots. Many groups here have joined the campaign, but others are here to get more information and we hope that you will join in the near future.

Oliver Sprague of Amnesty International UK welcomed everyone to the Human Rights Action Centre, which is located in their office building, and provided some logistical information.

Campaign coordinator Mary Wareham of Human Rights Watch welcomed participants and explained the format of the conference and expectations for the day.

The conference is as much to hear from you as it is for you to hear from us so provide your questions, comments, suggestions, ideas, commitments, and creativity. These will be rolled into a work plan for the campaign's actions in the coming year. We hope you will all join the campaign as an NGO member and, if you cannot, that you will be supportive of our efforts.

Jody Williams, Nobel Women's Initiative

As I thought about this meeting, I realized that it was twenty years ago that the International Campaign to Ban Landmines held our first NGO conference -- also in London. We banned those weapons and here we are again to tackle another. I was meant to talk about why we want to campaign to stop killer robots, but I'd like to switch the question and ask why anyone would not want to campaign to ban killer robots?

When I was writing an article about drones a couple of years ago and first found out about the ongoing efforts to create fully autonomous lethal weapons, I was completely horrified. And I was terrified. Perhaps I shouldn't have been shocked because what human beings do to other human beings is too often horrifying and beyond the pale in so many ways.

But learning that research and development is underway on killer robots that could on their own attack and kill people really threw me over the edge. It made me very determined to begin talking with NGOs about coming together to campaign to ban these weapons the same way that we did way back when we started talking about a campaign to ban landmines. We know there are "likely suspects" who will want to be involved in a similar initiative to tackle killer robots.

One of the things that is said when we mention campaigning to stop killer robots is that technology always moves forward and these weapons are "inevitable." When we started the landmine campaign we were told that it was "impossible" and a "utopian dream." Well, together we made the impossible possible and that utopian dream a reality and banned landmines.

We know we will face many challenges in our efforts to prohibit killer robots – and that the work will be harder than banning landmines. But I do not believe that these weapons are inevitable. They are inevitable only if we sit back and do nothing. We have to accept responsibility and say "enough already." We must stand up and challenge the so-called military-industrial complex on these weapons.

We will ban killer robots. And I hope in the process we can also open a broader discussion about war and where it's headed. We can talk about war and where it shouldn't go – for example toward launching a new robotic weapons race. We can talk about better uses for our resources so that we enhance human security instead of continuing to fill the pockets of the arms industry.

Twenty years ago, here in London, a few dozen NGOs committed to working together to ban landmines. In that effort, we broke new ground in "citizen diplomacy" and helped create a new model for tackling disarmament and arms control. We didn't know that we were doing that at the time, but now "humanitarian disarmament" is becoming firmly entrenched. We've learned a lot over the years and all of those lessons will only help ensure that this campaign to ban killer robots will, twenty years later, be as successful as those that came before it.

Noel Sharkey, International Committee for Robot Arms Control

In 2009, four of formed the International Committee for Robot Arms Control (ICRAC). Peter Asaro and Juergen Altman are also here today, while Rob Sparrowis in Australia. We started ICRAC because we were concerned with the kind of weapons technology that was being proposed by the US and others.

We're a group of academics so we wrote academic papers about the potential problems with fully autonomous weapons. Since 2007 I've been working with the media trying to get a response that way.

To be honest it has felt like shouting down a wind tunnel most of the time. This is why it is so great that non-governmental organizations are now getting involved, the profile of the issue has lifted in a big way, and an international discussion is rising.

Why are we bothered with these weapons? There are six main reasons.

First, robots can do a certain amount of discrimination, but cannot discriminate or distinguish between a soldier and a civilian. They're not good at human judgment and sense so cannot make this distinction.

Second, robots cannot make the proportionality calculation as required under International Humanitarian Law, which involves the notion that civilian casualties are acceptable under certain circumstances providing it is directly proportional to the military advantage that is gained. This requires a human commander to make the judgment based on their own experience, knowledge, senses, and common sense.

A third reason for concern is that killer robots muddy the notion of accountability. A human commander can be held accountable and responsible, but we can't hold a robot accountable for its actions on the battlefield. So is it the manufacturer or programmer or software engineer or small company that makes the sensors that is responsible? Military commanders have said

to me, 'I don't want these devices because I know that I'm going to have to be held accountable for its actions.'

A fourth reason is the idea of creating 'bloodless' wars, which can be a major issue for high-tech nations. But it's not certain that these are going to be bloodless for civilians and it's a blinkered idea. A fifth reason is that there will be a robot arms race as there is big money involved. Look at the 76 countries that already have drone technology. We're going to see massive proliferation of this technology if we don't stop it. It's going to get into arsenals very quickly and then come back at us via blowback.

Finally, the US is talking about using 'swarms' and not single ones in order to have 'force multiplication.' The idea is to create a secret computer program intended for fighting to take into account that the battlefield is completely unpredictable. We have no idea how programs will react when they interact and it could be destabilizing in a major way, unintentionally triggering conflict.

For me this is the end of a very long journey and the beginning of another. I've no doubt that collectively we can stop these things. There were lots of naysayers when the campaigns to ban landmines and cluster bombs got started, but you did it and can do it again. Be concerned about what is going on here today at this moment in time. It is morally outrageous and we shouldn't have to put up with this. It's time to stop the killer robots.

Steve Goose, Human Rights Watch

If we are going to be successful on this issue it will be because of a lot of the people present in this room today. You may be here to learn and find out more about things, but we hope you walk away with a sense of responsibility for being an important part of this Campaign to Stop Killer Robots. Successful campaigning is all about individual dedication and the willingness of many people to take on responsibility and follow it through. There has to be effective leadership, but the actions that the broad coalition undertakes make all the difference.

Why a preemptive ban and how? There are a whole host of very convincing arguments and compelling reasons for why there must be a ban on killer robots—moral, legal, technical, political, policy—and when these are all added up it is difficult to reach any other conclusion than to ban these weapons.

Ultimately the most important argument is going to be on the moral and ethical side. This plays into what is sometimes called the 'ugh' factor. If you think drones are bad consider what comes next. Drones involve extrajudicial or targeted killings and other objectionable things, even though there is a person in the loop making the decision about what to target and when to fire the weapon. But this is beyond drones. With fully autonomous weapons the human is taken out of the loop and the robot, machine, weapons system determines what the target should be and when to pull the trigger.

When people realize that there would be no human involvement their reaction is one of disbelief, is this really happening? Yes, it is happening and we're pretty far down the line. Prototypes about to go into full production don't exist yet, but precursors exist. Weapons with a great deal of autonomy and questionable human override capabilities already exist in a

number of different countries. We are not that far and technology moves very quickly. People quickly grasp that this is a bad concept to begin with.

We had the same sort of reaction on blinding lasers when we negotiated the 1995 protocol to ban blinding lasers through the Convention on Conventional Weapons. We were successful because people had the same reaction, that there should not be a weapon that is designed to permanently blind. There is a widespread feeling that is morally wrong to have machines make life and death decisions on the battlefield. That it is taking technology too far. That it's a place we should not go to. This will be the argument that carries the day.

The most important thing is the notion that there must always be a human that is meaningfully involved in or in control of decisions on when to target and fire a weapon on the battlefield.

There are convincing legal arguments. It seems highly unlikely that a fully autonomous weapon would be able to distinguish adequately between civilians and military targets. It seems extremely unlikely that a machine would be able to do the proportionality equation and decide whether an attack has military benefit that outweighs the potential danger to civilians. A killer robot would be unlikely to weigh the military necessity of an attack as this takes human judgment. These are sophisticated thought processes that require human qualities in order to make proper determinations. They take emotion and compassion, things that robots will never have, in order to comply with existing International Humanitarian Law.

Noel has described some of the technical problems to which hacking, spoofing, and other concerns can be added. Unpredictability is scary as no one knows what will happen when a robot faces another robot on the battlefield.

There is the horrible specter of a robotic arms race and the notion that states will feel compelled to move forward quickly and in larger numbers if a potential enemy appears to be doing so. These states are not going to wait for a few decades until science figures out the kind of artificial intelligence needed. Instead crude software could be added to existing platforms and rushed out, easily spiraling quickly into a nightmare scenario of proliferation.

It will not be easy to bring about a ban on fully autonomous weapons. Advanced militaries see ever greater autonomy as the future of warfare. This is not just about stopping a new weapons system, but stopping a new method of warfare. Ever-greater autonomy is what the US, UK, and many others think is the future.

In all likelihood we won't be able to stop the move towards greater autonomy, but we can force militaries and political leaders to draw a line before it gets to the point where the human is truly taken out of the loop, where there's no meaningful human involvement or control over the system. We have to draw that red line and create a new international standard that rejects the notion of a weapon that makes its own determinations about targeting and firing.

We already see states moving to greater autonomy. People don't talk about this as their official policy, but planning documents in the US, UK, and elsewhere show how full autonomy is seen as desirable and inevitable. We have to make sure that isn't the case.

A lot of money is going into this already – we don't know exactly what is being spent just on full autonomy, because it's hard to distinguish between a semi-autonomous system and an autonomous system that are going to use a lot of the same stuff. Undoubtedly this is a huge industry. Whenever lots of resources are devoted it becomes much more difficult to stop in terms of investment.

The proponents of fully autonomous weapons make some appealing arguments that we'll talk about today, starting with it saves lives and avoids military casualties. How can you be against saving soldiers' lives? There are good answers to that, because the way they want to do it is save soldiers' lives at the risk of greater civilian casualties. There are some emotionally appealing aspects.

It will be an incredible challenge to create this preemptive ban, but we will be successful, in part because we know how to campaign. We have done this before and we're going to build on the lessons learned from our successful campaigns, particularly on antipersonnel mines and on cluster munitions.

The fact that these weapons don't really exist yet is both a disadvantage and a big advantage. It is not easy to find a government policy statement that says this is what we're trying to do and we think this is where we have to go. If you dig deep into different Pentagon documents you see references but there is really no government that has an explicit policy aimed at pursuing these things at this time.

Shortly after Human Rights Watch put out its report calling for a preemptive ban last November, the US Department of Defense put out its own directive, the first explicit written policy statement by any government. According to the policy, the US will not acquire these weapons because of technical concerns, unless they change their mind in five years and do away with the policy. Even during the 5-10 years the policy can be overridden with hi-level Pentagon authorization.

The policy expresses many of the same concerns that we have with the weapons. It says they won't acquire them in the next ten years although they might keep working on them. It leaves the door wide open to acquiring fully autonomous weapons in the future, but is clearly a note of caution and a commitment not to try and acquire them in the near future. So there's hesitation even in the country that we're perhaps the most worried about.

We're encountering a lot of resistance to fully autonomous weapons from within the military. Some are gung-ho on it and some see it as inevitable, but others think it's a really bad idea. Some share our moral concerns and fewer share our legal concerns, but a lot of them think we shouldn't have a machine making the life and death decisions. They think that's their job, that's what they signed up for and trained to do. The notion that a robot could make better decisions than they could make doesn't sit well with many in the military.

The preemptive part of the call for is ban is appealing, but also makes it more difficult. These things have to be stopped before they reach the battlefield as once out it is extremely difficult to put the genie back in the bottle. Before they ever get there we need to create a new mindset that rejects the notion of not having a human in the loop.

As more money goes into developments and these things become more ingrained into war-planning and military doctrine it will become almost impossible to stop them. We feel a sense of urgency even though acquisition of the weapons may be 5, 10, 20, even 30 years down the road. It's very hard to predict and depends on what you mean by fully autonomous weapons.

The forces are aligned against us. A lot of people will say that it's not a matter of if there will be fully autonomous weapons, but when. It's up to us to make sure that the 'when' does not happen. The work on blinding lasers is a great model to show that a weapon can be banned preemptively successfully and it's not necessary to wait until after a weapon has proven to cause unacceptable harm to civilians.

We need input from everyone about the best way to organize this campaign and the best arguments that we can put forward to the challenges that we face. This has to be a collective effort with a wide range of views and experiences weighing in. We have great models for our work and will clearly need to follow the tenets of humanitarian disarmament that we have talked about elsewhere, where the well-being of civilians is put at the forefront of our discussions.

We'll need to build the kind of partnerships that we have in our other successful campaigns and that means a wide NGO coalition that's willing to lead the way. It means forming a core group of champion governments to take this on. It means engaging the International Committee of the Red Cross and with UN agencies.

So you are present at the creation, at the start of something. I'm confident that we're going to be successful through extensive engagement from all of you and that we can get there in the not too distant future.

Workshop Reports

The workshop sessions permitted 45 minutes of discussion, each co-facilitated by Steering Committee representatives. (See annexed Agenda) The purpose of the report-backs by the facilitators was to summarize the discussion and see if participants had questions of clarification, if they disagreed with any aspect of the report, or if they thought that anything crucial was missed. These reports will help form the basis for the campaign's first work plan so feedback is important. The Campaign to Stop Killer Robots operates on the understanding that silence is consent.

1. Technical Questions
Report delivered by Richard Moyes, Article 36

We had an open discussion, but probably raised more questions than we answered. We were attempting to explore a set of questions around what is autonomy and what existing technologies are under development and in operation.

Overall we didn't struggle with general principle of retaining human control over attacks. It felt like we probably were all broadly agreed that there needs to be human control over attack. Once we got beyond that things got a little bit more complicated.

We had a number of broad points or questions. Are we talking just about armed conflict or policing situations as well? Are we talking about lethal attacks or other types of non-lethal attacks? What is the target of the attack and is it different if you're attacking an unmanned system or if you're attacking human targets? Are we talking about individual robots as a single identifiable entity or systems of technology that may link computers and sensors to weapons platforms so that it operates as a system rather than being all in one place?

Beyond those broad parameters, the focus of the discussion was on the spectrum of autonomy and the question of what it means to have human control over attacks with weapons. We used a framework for thinking about what is increasing autonomy. At the same time, there's decreasing meaningfulness of human control. It's within this area that we're going to need to draw the lines within this issue.

It is made more complicated by the recognition that simply having a human being involved in the process is not in itself a guarantee of anything meaningful. If a human being simply presses a fire button when a red light goes off it's difficult to say that that human being is adding a lot of value to the process in operation.

At the same time we saw systems which are operating with a very high degree of autonomy, perhaps shooting down incoming missiles towards ships. Despite their high degree of autonomy we could recognize a utility and acceptability to those systems. We looked at the scale or spectrum of autonomy and of human control. There's a sense that there are outliers in this that could shape the way that we frame our approach on this.

We're also concerned that when we do draw these lines, whether in drawing lines around certain things we are seen as legitimizing or accepting certain other things that fall outside of that. We need to be mindful in any process where we're drawing boundaries about what's acceptable and what's unacceptable.

To re-cap, the general principle of requiring human control is clear and agreeable to us. Where specifically to draw the lines within the spectrum of autonomy is more complicated. A lot of questions were left hanging in the air.

Timing-wise for this community coming together to discuss this it is useful as nobody was presented with a fait accompli after the discussion that we had. So we can recognize that we are engaged in these conversations and coming together in equal terms, which is a good thing at this early stage.

2. Legal Concerns
Report delivered by Bonnie Docherty, Human Rights Watch

We had a lively discussion with lots of tough questions. We started with a quick overview of the key legal arguments, notably in International Humanitarian Law (IHL) – distinction, proportionality, accountability and the concern about public conscience under the Martens Clause, which is both a legal and an ethical issue. We took questions and asked people what was most persuasive to them, what kind of tough questions they thought we might get, and what areas we need to do more research in.

The biggest theme was to broaden our scope in two related areas. First, to consider human rights law as well as IHL. That relates to looking outside armed conflict to situations of law enforcement. It's hard to draw the line, and we don't want states arguing that this is not an armed conflict and therefore the rules do not apply. There's some precedent for a broad scope from previous conventions, where weapons are prohibited under "any circumstances."

The second place where we need to do more work is on accountability, to look more at international criminal law, national laws—criminal or civil—and the impact of state responsibility, which provides some degree of responsibility but not at the individual level.

One tough question was: what if technology develops to the extent that these weapons could protect civilians? We need to look at why a preemptive ban is needed and adopt the precautionary principle. Do you want to wait to find out and see if you change your mind? Our goal is to protect civilians further and we want to preempt that kind of development.

On definitions, we discussed how it is important to be able to answer the question of what we seek to ban, but premature at this point to decide how to define fully autonomous weapons Definitions are usually agreed last, at the end of treaty negotiations.

We looked at why, if there are so many legal problems under IHL and human rights law, you need to create a treaty on top of that. If you have a special treaty, enforcement is stronger, stigma is stronger, and it can cover use (which falls under IHL) as well as proliferation – development, production, etcetera. We also considered how technology could be misused or abused by rogue states.

Finally, why do you need a 'preemptive' treaty? The blinding lasers protocol of the Convention on Conventional Weapons is helpful. The prohibition on weapons in Outer Space is a different agreement that we haven't thought about in detail, but might be worth examining.

3. Moral and Ethical Considerations
Report delivered by Peter Asaro, ICRAC

We covered a lot of the same questions and territory as the previous groups, but considered them from a somewhat different perspective by looking at the legal and moral issues concerned.

We identified many of the same problems with respect to arguments that these weapons may be more effective and more moral because they're more precise so they might protect civilians. How do you argue with that? This is framed in a consequentialist, utilitarian framework. You could argue in that framework that it's a low probability that there will be systems that are dangerous in this way. There's a high probability that there will be proliferation of dangerous systems, which is a way to approach it in consequential terms.

It's stronger to use a rights-based framework and talk about the threat that these pose to human rights in general. Allowing systems to decide without human judgment whether to revoke people's right to life or other sorts of rights is a much better framework to use. That it is immoral to delegate to any kind of unmanned system. It has other long–term consequences

that are beneficial to think about, including police action and the use of other kinds of technologies in an automated form that endanger human rights.

Another framework for thinking about it is virtue-based ethics, which plays well especially in military audiences if we're looking to engage the military in terms of command responsibility, virtue and ethics, and warrior ethos. Military officers view their job as virtuous and professional so the idea of being replaced by a computer threatens them. It's a good argument and strategy in that framework.

The challenges that we face include consideration of sub-lethal weapons. If it's not a lethal system then is it still undermining your fundamental human rights? I would say yes, fundamental right of integrity, freedom of movement, and other sorts of things that could arrest you or tear gas you in sub-lethal attacks that were autonomous.

Another big challenge is the automated systems that are not focused on humans, but focus on incoming missiles or unmanned systems. That's very challenging and something that might be negotiated on a treaty basis.

A near-term challenge is the way in which arguments about eliminating human responsibility seem to say that those systems that have humans in the loop are "good" systems or that we are in some way favoring those. This is a challenging argument to face in terms of building a coalition, but the arguments we're making don't prevent or prohibit anybody from making further arguments against other kinds of weapons systems.

On the systems that keep people in the loop, specifically drones, we're not arguing that these are intrinsically ethical compared to other systems. You can argue against those on different grounds. That shouldn't preclude us from going after autonomous systems. In the long term a ban on autonomous systems will have repercussions on those other arms debates.

4. Opposition to the Ban

Report delivered by Thomas Nash, Article 36

We first mapped out the different constituencies that might oppose the call for a ban, discussing who opposes a ban and why (or who supports killer robots and why). We looked at their arguments and our counterarguments.

Some militaries and some in the political world might oppose a ban. The drive towards greater autonomy on the battlefield is coming from US Department of Defense roadmaps looking into the future and others may be adapting those. There are divergent views within militaries, where killer robots supporters appear to work in R&D and somewhat surprisingly are military lawyers, while the war fighters are resisting and want to keep boots on the ground.

A second constituency is weapons manufacturers and defense contractors that are looking in these future directions and adapting. Various entities (labs, universities, companies) are doing R&D and could potentially become producers in future.

A third constituency is people working in science and technology, including roboticists who believe that Artificial Intelligence will get to the level where machines are able to make

decisions that are better at protecting civilians. The community is split between those who believe that good can be achieved from the use of killer robots. Many are influenced by funding support.

A fourth constituency is bloggers and media hacks—mainly academics and lawyers—who question the idea of a ban. They may not be saying that they support killer robots, but argue a ban is not the right solution.

Finally, wealthy hi-tech nations keen to maintain their dominance over technology and military power.

These don't represent homogenous groups, but they represent constituencies from which opponents could be drawn.

I will skip through some of the arguments, but note that we did not always have a "slam-dunk" answer, but to give a sense of the discussion…

A key argument was that these weapons systems may be more effective and efficient so there may be a moral obligation to use them if they're proven to be better at protecting civilians or adhering to the laws of war. Is this entirely compelling or is there a more fundamental moral boundary that we don't wish to see crossed, where we devolve decision-making power about targeting and killing people to machines? Perhaps decisions around complying with IHL are not able to be resolved swiftly or in a programmable, predictable way.

Another argument is that some may be convinced that these weapons will keep our troops safe and don't have human flaws/weaknesses. This could be a compelling argument in the US and other countries keen to avoid military casualties. The response raises the question of who should bear the burden of risk in conflict? Should it be soldiers or civilians? To what extent can we entirely remove risk from the battlefield? Are fully autonomous weapons necessary in order to remove this risk? Is it right to do that?

A third argument is the idea of technological dominance, that if we as a country don't develop then others are going to so we might as well do it. We can respond that if the UK is serious about not having plans to develop systems that could operate without human control, the UK should have an interest in helping to set a standard against these by others and the earlier they do that the better.

A fourth argument was about existing IHL being adequate. Others have covered this. Existing IHL has been proven to be inadequate on a number of occasions with regard to certain developments. People have come together to prohibit certain practices and weapons that were not able to be controlled by existing IHL.

A fifth argument is about where do you draw the line? What about defensive, semi-autonomous systems? It is reasonable to say that more work is needed in this area, but come back to the principle that we need meaningful, accountable human control over every individual attack and the entire process of ever individual attack? Put the burden of proof back on governments to ensure this.

A ban couldn't be verified because of complicated software that could be introduced at the last minute. Other systems might be almost autonomous, but it's not possible to tell. There would be ways to verify a prohibition on fully autonomous weapons. There are many models for compliance in different treaties.

There are many other arguments to address, including that fully autonomous weapons could be cheaper, that they can at least do certain specific missions safely and in compliance with IHL, it would better to have robots kill robots than humans kill humans, we shouldn't ban or restrict research and development because much good can come of robotics and autonomy, the ever-greater autonomy is future of warfare, killer robots are inevitable, should not be a preemptive ban as we must see where the technology takes us, a ban treaty is not realistic and won't be effective or verifiable, restrictions make more sense that a ban, there is no urgency or need for action now, killer robots don't exist, may never exist, and there are more pressing issues.

5. National Campaigning
Report delivered by Paul Hannon, Mines Action Canada

Getting an international, legally-binding instrument will require strong national campaigning and changing policy also requires strong national campaigning.

Our discussion considered three questions: What's existing now in terms of national campaigning, what's planned, and what people think they need to engage on this topic.

In terms of existing activities, there is a lot of good media work going on and social media outreach is starting today. Some NGOs have new research or are planning research that should be shared among campaigners. Some are building national coordination, but more often 'networks' rather than a national 'campaign.'

A number of campaigners are planning to do parliamentary outreach to get their governments to elaborate their policy on this. In one country, campaigners are working with staff in parliament to request that they do scientific research.

One suggestion is to review what other global campaigns from the environmental movement are doing as they similar to us as they are doing preventative campaigning on what needs to happen now with respect to a threat that may come years in the future.

We need more information on the threat, which is a challenge as there are no existing weapons. Campaigners need more information on exactly what we are calling for. There was a request to make sure not to lose emotional aspects of our work, especially when we start to get into policy work.

We need to develop clear messages with very simple asks, including visuals for social media and campaigning activities. Don't be afraid to be creative or use humor. The Campaign to Stop Killer Robots name elicits humor, but also gets attention.

Internationally the campaign is seen as similar to the coordinated civil society initiatives behind the Mine Ban Treaty, Convention on Cluster Munitions, and Arms Trade Treaty – an umbrella organization with national campaigns under it that each work in their own way.

Communications between all campaigners is crucial and all conference participants are urged to sign up to the yahoogroup email listserv.

There was a message for the leadership (Steering Committee) to not be afraid to coordinate and keep us going forward.

Remember this is a preemptive campaign. Nuclear campaigning veterans talked about how the genie is already out of the bottle on nukes. It's not out yet on fully autonomous weapons and our goal is to make sure it doesn't ever get out of the bottle.

6. International Outreach

Report delivered by Thomas Nash, Article 36

An overarching point from both workshops was a recognition that substantially more background work needs to be done to determine a strategy for the campaign by mapping out interests and figuring out the dynamics. Also to be more concrete and get more flesh on the bones of our policy. This day has been invaluable in that regard.

Our workshop sessions were divided into three parts. 1. What are we asking governments for? 2. What are some steps along the way, interim measures that can be undertaken now? 3. What sorts of fora/places could we have this discussion?

We are calling for a ban on fully autonomous weapons. One important precision raised was to call for a ban "under any circumstances." Not just linked to IHL in armed conflict, but beyond that.

There also needs to be greater transparency. States need to outline their national policies and have an open discussion about their definitions and understandings of fully autonomous weapons. We need a good idea of what we're talking about ourselves, but don't need to have absolutely all the answers before having that discussion.

Finally, depending on the state, we are calling for leadership, including potential willingness to be in a core group that takes this issue forward. Governments should provide support to NGOs and others doing research and other activities on this issue.

Steps along the way could include comprehensive national policies. We recognize the need for these policies to take into account existing rules and obligations.

Part of this is about getting recognition of this issue, this problem by as many states as possible. Public statements are important. We might be able to get a national ban through parliaments in countries like Belgium. Declarations against investment may be useful, against development or a comprehensive national moratorium. Get joint statements and other engagement from military voices. Get resolutions, statements, hearings from regional organizations such as EU, Arab League, AU. Experts group meetings and other discussions convened by think tanks, Chatham House, ICRC, universities.

One point was that we need to humanize some of the vocabulary when we talk about fully autonomous weapons systems or targeted strikes. Get back to our core message.

On fora, UN special rapporteur for extrajudicial killings Professor Christof Heyns will be presenting his report on lethal autonomous robots to the Human Rights Council at the end of May. We expect that it will have good, strong recommendations. This is a great opportunity for states to engage with this issue at the international level.

Regional meetings could help us to engage with military alliances, e.g. NATO. Tech companies and the fora they engage in such as Comic Con, etc. Killer robot-free zones was mentioned in both sessions.

A forum for the eventual negotiation of a treaty should not be selected until we have analyzed the dynamics to determine our approach. There are a number of models and experiences to draw from when we make that call.

7. Communications
Report delivered by Mary Wareham, Human Rights Watch

A majority of workshop participants were comfortable with the name: Campaign to Stop Killer Robots. It's powerful, it's confrontational, and it's got credibility behind it. That last point matters; this is a substantive campaign with a catchy name that gets attention. People were comfortable with the "stop" message as opposed to "ban" or another call.

Some participants thought the logo was boring and could be more edgy or futuristic. We're not going to change it, but will look more at the graphics, especially infographics that we could use, learning from the Arms Trade Treaty campaign in particular.

The visual elements of this campaign are a big challenge – how do we present that? In a way science fiction has done that for us, everyone has their own idea of what a killer robot looks like. We have to show the people behind the movement as well. This is about a weapon and warfare, but it's also about the people who are trying to get rid of it and the people who could become victims.

We will be careful when it comes to our messaging on drones. We are not enlarging the campaign's call to seek a ban on armed drones, but will work to ensure that everyone is comfortable with our messaging on this. This is an evolving aspect of our campaign and not something to be resolved overnight. We're incredibly aware of and take your input and feedback on this seriously. If we say something that you're not comfortable with, please email and tell us, ask if there is not a better way to express or present this?

Another big challenge for our messaging is how soon or imminent fully autonomous weapons are. Is it upon us now or 20 years in the future? This is a complicated question to answer and one that we're going to have to have a better response on.

In terms of communications tools, the Campaign to Stop Killer Robots has all the relevant social media tools—Twitter, Facebook, Flickr, YouTube, Storify—but we're lacking a strategy on using them and welcome input on that.

We discussed some activities planned over the coming months as we need to show that we did not launch and then go away. The aim is to have something new to say at least every month. ICRAC/Noel has been coordinating a scientists statement against killer robots. Jody is

working on a Nobel Peace Laureates letter that will be broadened out to individual organizations that have received the prize. We need to do more work with faith leaders and the faith community, as well as recruit military veterans and voices into our movement.

There is a global yahoogroup email listserv to facilitate internal communications that is not restricted to NGOs that have endorsed and joined the campaign - any activist/campaigner can sign up.

8. Research Needs

Report delivered by Richard Moyes, Article 36

There was a wide-ranging discussion in both workshop sessions as a lot of work is needed. The discussion was framed in terms of how important research is for campaigning activities.

Research work is one of the ways in which we empower ourselves, show expertise and establish and build our credibility with governments and others. It helps to frame the terms of the debates that we're involved in and shape the landscape that we're working within. Research helps to rebut the arguments, including claims that we think are false or misguided. We need to produce extensive documentation, both in order to establish our credibility and to be able to guide the discourse. Quality is important, but so is quantity. If you can point to a pile of material that is substantially higher than the pile of material that opponents have can trump.

The overall objective of the workshop sessions was to identify the areas where we need research and analysis, and to see if different organizations can indicate where they might be able to do something. In some cases, research and analysis have been done on these items, but more may be needed, and/or it needs to be revisited and presented in a way that is useful to the campaign.

Research Topics

Technical
- How killer robots will function
- What killer robots will not be able to do
- Dual-use technology
- Automatic vs. autonomous systems
- Existing precursors -- can they instead be considered fully automatic
- What's in and what's out of the ban; where and how does one draw the line
- What is adequate/meaningful human control/involvement and how to ensure it
- How to verify a ban
- Distinguishing between research and development on fully autonomous weapons and on related matters

Policy and Practice
- Status of programs -- current R&D, how far along, when likely to get to testing then production
- Who's doing the R&D -- labs, universities, companies; public/private; govt/non-govtl

- Funding -- levels, to whom from whom, how tell $ for fully autonomous from related expenditures
- Key countries with very little info -- Russia, China, others
- Possible treaty elements; possible draft national legislation; possible parliamentary resolutions
- Existing policies (stated or implied)

Legal
- IHL as a frame of reference in addition to broader legal frameworks, such as human rights. Respond to critiques that killer robots will not violate IHL (distinction, proportionality, necessity)
- Making the case for the Martens Clause (dictates of public conscience). Polling data could help make the case.
- Accountability issues
- Treaty elements (incl verification); draft national legislation; parliamentary resolutions
- Banning research and development of fully autonomous weapons, but not related non-objectionable R&D

Moral and Ethical
- Elaboration of moral and ethical objections, with precedents
- Code of conduct for scientists
- Martens Clause
- Consider in abstract terms, but also practical. How are robotic technologies being incorporated into other areas of life with life or death applications. Society orientates differently to weapons than to public health.

In terms of research methodologies, crowd-sourcing could be helpful – find mechanisms to get people working in these areas to self-report. There was recognition that research outputs will need to be compelling, engaging, and "humanizing."

Money for research is not necessarily available. Perhaps we can support each other, including to identify funding streams. Research can be used to engage individual nongovernmental organizations in concrete streams of work. It can be a vital component of advocacy work of the campaign, e.g. asking questions of governments. Helps to build a strong advocacy front based on strong research agenda.

There is still a great deal we do not know, much work to be done, and best if we can share the burden. There is a lot of research to do but this will be an important pillar of the campaign.

Closing Plenary

The closing of the conference was informal with closing remarks from several participants.

Brian Wood, Amnesty International
Thanks to everyone who pursued Amnesty to endorse and join in the Campaign to Ban Killer Robots. We appreciate the huge amount of experience and expertise in the room. It is

heartening to see how the coalition is coming together. You have our support. We need to clarify to the Amnesty movement what these robotic weapons are and why they need to be banned and how we're going to do it. We need to communicate with you, with the Steering Committee on this.

Analogies are made to previous campaigns on Arms Trade Treaty, landmines, cluster munitions and we need to be mindful when drawing comparisons and lessons learned from individuals and organizations involved to create space and capacity to look at and analyse what is unique about robotic weapons, what power dynamics are involved. Look to weapons of mass destruction, including Outer Space, cyber warfare and cyber weapons.

With landmines, dozens of countries made them, a relatively simple technology. In this case only a few countries doing R&D: US, Israel, Russia, China, South Korea. How do we get those states in the room willing to ban the kind of things they're trying to develop? We've got to change their perception of their own self-interest. The issue of proliferation and "blowback" on this are very important. One way in which states could agree to a ban is by thinking that the ban is the "safest" way to protect themselves. Hacking, boring/stealing of technology is going to be easy and the weapons could proliferate quickly. Convince politicians that their interests are better served by getting rid of the problem by not allowing proliferation.

We will join the effort, get Amnesty partners in capitals to press governments to support the Heyns report recommendations. This needs to be not only an IHL prohibition, but covering armed conflict and non-conflict, need other law- human rights, weapons and use of force.

Let's get some proposals into the works. Maybe one of your governments will be the one who says it is willing to convene a group of interested governments together with scientific, legal, and other experts. Could take it to the UN General Assembly special conference called to negotiate terms of the ban. A non-UN process could be very difficult given who are making these things. Develop strategy proposals, perhaps options or scenarios.

Anna MacDonald, Oxfam

Ten years ago we held a similar meeting in London to plan the launch of the Control Arms campaign. One of the main concerns at that time was how difficult it was going to be. We heard from a great number of governments that it would be far too difficult and complicated, that vested interest would never agree to an Arms Trade Treaty, that you'll never achieve anything inside the UN, that it's too technical. It was all just going to be too hard.

It's nice to be back at the start of a campaign where we are hearing those arguments. Inspired that today we heard "yes we can." There is a huge amount to learn from other campaigns—landmines, cluster munitions, Arms Trade Treaty—on a range of activities including how to use social media effectively, how to campaign and lobby.

But the most important tool is all the people in this room. That is what we really need and that's what makes change happen. If you have vision and capacity, you can change the world as we just did on the arms trade. You have the tools to make this happen. There will be many difficulties to come and lots of challenges, but you can do it and you will do it.

Peter Asaro, ICRAC

Today we looked at the nuts and bolts of the challenge, including the difficulties and challenges that we face today. We also heard a lot of fresh ideas for how to address them.

I have extreme confidence in the people and organizations gathered together in this room that we can bring thing to fruition. Just because there's a lot of hard work to do means we're job creators.

We have the moral high ground. I come away from today confident that we've succeeded in taking the moral high ground and now all we need to do is defend it against some pretty poor arguments that have been made this far. There may be more serious challenges, but we're coming to the right place. I recently returned to Stanford Law School, computer professionals for social responsibility, where I was on a panel with roboticist Ron Arkin. His argument hasn't developed much, but ours has and that is coming across clearly.

We have some youth campaigners from ICRAC and graduate students keen to help. This is a great opportunity to bring a whole generation into humanitarian disarmament and translate our significant knowledge, expertise that is spread among the individuals in this room. Youth will be a source of a lot of energy and magnification of the movement.

When we formed ICRAC four years ago and thought about what it should look like, we looked to the Mine Ban Treaty and knew we needed a bunch of NGOs to move it along. We had a very sketchy idea of what NGOs were all about, and how the process might work. But we've come so far in the past year and especially in the past six months since the Humanitarian Disarmament Campaigns Summit was held in New York in October 2012. I had no idea the level of sophistication involved. It is inspirational in moving forward.

Steve Goose, Human Rights Watch

Thank you all for a really excellent and exciting day. At some point we will look back and think of this as a big, important day, the day when a comprehensive ban on fully autonomous weapons truly started to become a reality. It's been an impressive sharing of experiences and knowledge and creativity.

This is a great group of very capable people from diverse backgrounds coming together for a vital humanitarian purpose, to stop a new form of warfare that should never come into existence. We should feel very proud of what we're trying to do here. It was a great information-exchange, idea-exchange. A learning experience for us all, even ICRAC. We did a wonderful job of laying out our challenges and our opportunities. We did a great job strategizing on the way forward, which was the main purpose for today.

The Steering Committee will take all the input from today and from previously and put together a detailed work plan. One lesson from our other campaigns is that you never meet just to meet. You meet to develop an aggressive plan for the way forward.

Thank you all. Thanks to Amnesty International for hosting. This conference was organized mainly by three people: Laura Boillot of Article 36, Kate Castenson of Human Rights Watch, and Mary Wareham of Human Rights Watch, who conceptualized and put the NGO Conference together, while serving as coordinator of the campaign. So biggest thanks to them. ###

List of Participants

A total of 65 representatives from 30 groups, including 13 NGOs that have joined the Campaign to Stop Killer Robots, met at the Human Rights Action Centre in London on Monday, 22 April 2013 to discuss the new international civil society initiative on fully autonomous weapons.

* - Indicates member of the Campaign to Stop Killer Robots
+ - Indicates observer and not a non-governmental organization (NGO)

Action on Armed Violence (UK)
Mr. Steven Smith, Chief Executive
Ms. Katie Harrison, Policy and Research Manager
Ms. Serena Olgiati, Senior Policy and Research Advisor

Amnesty International*
Mr. Brian Wood, Manager of Arms Control, Security Trade and Human Rights
Mr. Avner Gidron, Senior Policy Advisor
Ms. Helen Hughes, Researcher
Mr. Oliver Sprague, Programme Director, Amnesty International UK

All Party Parliamentary Group (APPG) on Drones (UK)+
Ms. Caroline Parkes, Researcher

Article 36* (UK)
Ms. Laura Boillot, Project Manager
Mr. Thomas Nash, Director
Mr. Richard Moyes, Managing Partner

Association for Aid and Relief Japan*
Ms. Mami Mizutori, Director

Campaign Against Arms Trade (UK)
Ms. Ann Feltham, Parliamentary Co-ordinator

CODEPINK: Women for Peace* (US)
Ms. Medea Benjamin, Co-Founder

Drone Wars UK
Mr. Chris Cole, Coordinator

Facing Finance (Germany)*
Mr. Thomas Kuechenmeister, Coordinator
Ms. Ruth Witt

Geneva Academy of International Humanitarian Law and Human Rights+
Dr. Stuart Casey-Maslen, Head of Research

Handicap International*
Ms. Marion Libertucci

Harvard Law School International Human Rights Clinic (US)+
Ms. Bonnie Docherty (also with Human Rights Watch)
Mr. Jonathan Nomamiukor, Student Intern
Mr. Innokenty "Kenny" Pyetranker, Student Intern

Human Rights Watch*
Mr. Steve Goose, Arms Division Director
Ms. Kate Castenson, Arms Division Coordinator
Ms. Mary Wareham, Arms Division Advocacy Director

ICBL-CMC Austria
Ms. Judith Majlath, Director

IKV Pax Christi* (The Netherlands)
Ms. Miriam Struyk, Program Director
Ms. Roos Boer, Policy Advisor
Ms. Merel Ekelhof, Intern
Mr. Wim Zwijnenburg, Policy Advisor

International Committee on Robot Arms Control*
Prof. Noel Sharkey, Chair
Dr. Juergen Altmann, Vice-Chair
Dr. Peter Asaro, Vice-Chair
Prof. Mark Bishop, Chair of AISB
Dr. Steve Wright, Leeds Metropolitan University
Ms. Faye Scott, Leeds Metropolitan University
Mr. Andreas Hofmann, Leeds Metropolitan University
Ms. Aysegul Yildiz, Leeds Metropolitan University
Ms. Ayse Hall, Leeds Metropolitan University

Mines Action Canada*
Mr. Paul Hannon, Director

Network for Social Change
Ms. Doro Marden, Member

Nobel Women's Initiative*
Ms. Jody Williams, Chair
1997 Nobel Peace Laureate

Omega Research Foundation (UK)
Ms. Helen Close, Research Associate

Oxfam
Ms. Anna MacDonald, Head of Arms Control
Mr. Martin Butcher, Policy Advisor

Oxford Research Group (UK)

Mr. Jacob Beswick, Policy Officer
Ms. Hana Salama, Networks Officer

Parliamentary Forum on Small Arms and Light Weapons (Sweden)+
Ms. Teresa Dybeck, Programme Officer

Peace Research Institute Frankfurt (Germany)
Mr. Christian Weidlich, Project Staff

Protection /Human Rights and Mine Action Foundation* (Egypt)
Mr. Ayman Sorour, Executive Director

Pugwash Conferences on Science & World Affairs*
Prof. John Finney
Ms. Sandra Butcher, Senior Programme Coordinator

Quaker Peace & Social Witness (UK)
Mr. Sam Walton, Peace & Disarmament Programme Manager

Reprieve (UK)
Ms. Jennifer Gibson, Staff Attorney

Saferworld (UK)
Mr. Roy Isbister, Team Leader, Small Arms and Transfer Controls

Save the Children UK
Ms. Kimberly Brown, Humanitarian Advocacy Adviser

United Nations Association-UK
Mr. Ben Donaldson, Campaigns Officer

Academic guest
Ms. Elke Schwarz, London School of Economics

NGO Conference on the Campaign to Stop Killer Robots
Human Rights Action Centre
London
22 April 2013

Agenda

8.30am-9.30am – Registration

9.30am-10.30am – Opening Plenary chaired by Article 36

- Welcome & Expectations for the Day – Oliver Sprague, Amnesty International UK & Mary Wareham, Human Rights Watch
- Why a Campaign to Stop Killer Robots? - Jody Williams, Nobel Women's Initiative
- What are Fully Autonomous Weapons? - Noel Sharkey, International Committee for Robot Arms Control
- Why a Preemptive Ban and How? - Steve Goose, Human Rights Watch

10.30am-11.00am – Coffee/Tea Break

11.00am-12.30pm – Workshops Session I: Why Do We Need a Ban?
These 45-minute workshops will be held twice for each topic.

1. Technical Questions (Noel Sharkey & Richard Moyes)
2. Legal Concerns (Bonnie Docherty & Kenny Pyetranker)
3. Moral & Ethical Considerations (Peter Asaro & Miriam Struyk)
4. Opposition to the Ban (Steve Goose & Thomas Nash)

12.30-1.30pm – Lunch Break

1.30pm-2.00pm – Plenary to report-back on the workshops

2.00pm-3.30pm – Workshops Session II: How do we get a ban?

1. National Campaigning (Paul Hannon & Laura Boillot)
2. International Outreach (Thomas Nash & Bonnie Docherty)
3. Messaging & Communications (Mary Wareham & Miriam Struyk)
4. Research Needs (Richard Moyes & Steve Goose)

3.30pm-4.00pm – Coffee/Tea Break

4.00pm-5.00pm – Plenary to report-back on the workshops and close the conference

5.00pm – Social Drink at the same venue

Please note that the workshops are self-selecting (choose according to your interest) and no sign up is required.