THE
PLOUGHSHARES MONITOR
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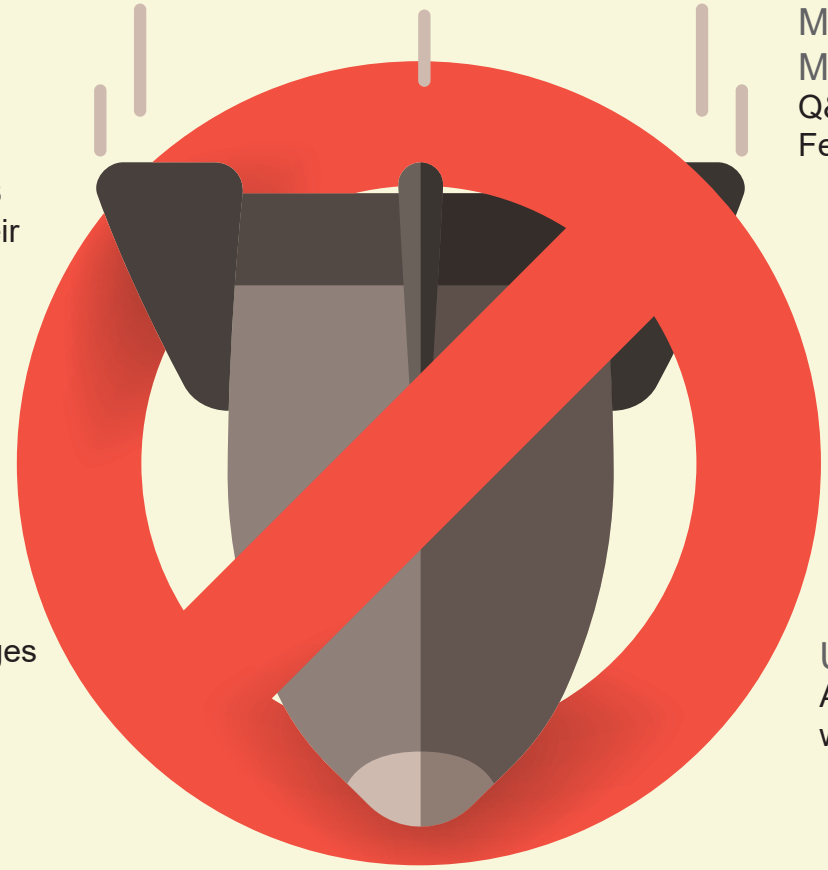
SPRING 2020

Autonomous Weapons Ban
How can Canada get up to speed?

Nobel Lecture
Forging a durable peace in the Horn of Africa

Mining Social Media for Peace
Q&A with Anthony Fenton



Killer Robots
Ottawa makes their ban a priority

Policy Labs
Defence and security challenges facing Canada

U.S. Space Force
And the future of warfare in outer space

An in-depth conversation with Tim Wright

THE NUCLEAR BAN TREATY

"and they shall beat their swords into ploughshares, and spears into pruning hooks; nation shall not lift up sword against nation; neither shall they learn war any more." Isaiah 2:4

Spring 2020

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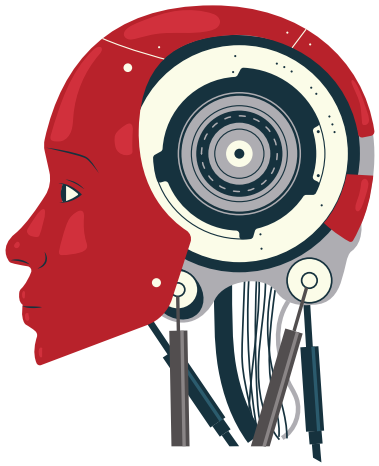
From the Director's Desk

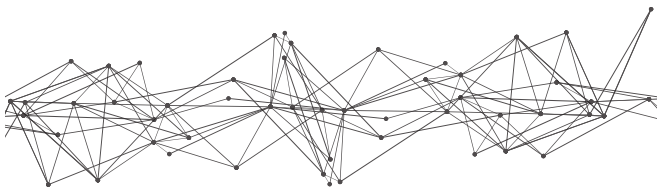
In a welcome shift, Canada makes banning killer robots a foreign policy priority



Written by Cesar Jaramillo

It sounds like the stuff of science fiction. Enabled by significant advances in artificial intelligence (AI) and robotics, fully autonomous weapons systems with the ability to select targets and employ lethal force with no human involvement—also known as killer robots—may soon emerge.

Such a technological and military revolution would change not only the conduct, but the very perception of war. The impact has been likened in magnitude to the invention of gunpowder in 9th-century China or the development of the first nuclear weapon during the Second World War.



The emergence of autonomous weapons systems could offer some benefits, supporters often claim. But the risks of misuse and abuse are horrifying. The international community must act swiftly and decisively in developing robust, multilateral regulation. And Canada could play a leading role.

The mandate letter issued last December to Minister of Foreign Affairs François-Philippe Champagne specifically directs him to "advance international efforts to ban the development and use of fully autonomous weapons systems."

International civil society, including the Campaign to Stop Killer Robots, and thousands of people employed in high tech are already calling for a preemptive ban on fully autonomous weapons systems. Since 2014, the nucleus of the ban debate has been at the UN Convention on Certain Conventional Weapons (CCW) in Geneva, Switzerland. These talks, however, have failed to yield any concrete plan for negotiations on a preemptive prohibition. The reason: not everyone supports the ban idea.

States including Austria and Brazil are openly supportive. Russia has opposed attempts at regulation, including such non-legally binding measures as codes of conduct. France and the

Netherlands are among those taking a wait-and-see approach, arguing that it is too early to know how the technology will evolve and thus it is premature to speak of a ban. So far, Canada has seemed to be part of this last group.

But the new mandate to the Foreign Minister provides an opportunity for Canada to assume a leading role on this consequential issue.

"Multilateral arms control efforts have traditionally occurred only after a certain category of weapons has been deployed and its destructive effects experienced. The window to avoid the consequences of the widespread deployment of fully autonomous weapons systems is still open—but only barely.

Canada could reclaim the place it once held as an international leader in multilateral arms control, build on the legacy of the Ottawa Process that resulted in the Landmines Treaty two decades ago, and advance the rules-based international order promoted by the Trudeau government.

In June, Canada could have the chance to advocate for the ban, if the new round of CCW discussions on autonomous weapons takes place. It should join those calling for the prompt start of negotiations or at least the establishment of a concrete timeline. In preparation for these meetings, Canada should let allies and partners know that it has made the pursuit of a preemptive ban a foreign policy priority. And it can start to develop domestic policy that is consistent with this objective.

A legal prohibition would bolster international law and serve to clarify the norms for tomorrow's battlefield. It would inform military doctrine and rules of engagement by establishing common international norms around acceptable uses of artificial intelligence in military systems. At the core of this effort would be the recognition that the employment of lethal force must always remain under human control.

The thorny legal and ethical issues around the current use of lethal force by armed drones remain essentially unresolved. Questions concerning compliance with international humanitarian law, as well as legal and ethical accountability, are dramatically more complex in the case of killer robots.

For example, if an autonomous weapons system engages and kills a human target, who is to be held ultimately responsible? The coder who worked on its algorithms? The military commander who deployed it? The developer of facial recognition software that was employed in determining the target?

Multilateral arms control efforts have traditionally occurred only after a certain category of weapons has been deployed and its destructive effects experienced. The window to avoid the consequences of the widespread deployment of fully autonomous weapons systems is still open—but only barely. Research into autonomy and artificial intelligence is advancing rapidly, threatening to leave policymakers in the dust.

Canada has the unique opportunity to lead in the negotiation of a strong legal regime to prohibit autonomous weapons. Minister Champagne has a clear mandate, which reflects the gravity of the threat, as well as the urgency of an effective policy response. If he champions the ban in good faith and can rally international support for a multilateral negotiation process, he might just make the most consequential Canadian contribution to arms control since the Ottawa Process. □

Cesar Jaramillo is the Executive Director of Project Ploughshares. He can be reached at cjaramillo@ploughshares.ca.

Outer Space Security

The role of the U.S. Space Force in the future of warfare in outer space

Written by Jessica West

The United States Space Force is taking shape. A uniform of camouflage fatigues and an insignia that looks like something from Star Wars have been designed. A contest is under way to name its troops (both "space cadets" and "spacemen" are off the table). There are suggestions that the Force will be modeled after the U.S. Navy.

Still unclear is what the force means for the future of outer space.

What is the Space Force?

On December 20, 2019, the U.S. Space Force became the sixth independent service branch of the United States military. Its mission: to organize, train, and equip "space forces in order to protect U.S. and allied interests in space and to provide space capabilities to the joint force." According to Deputy Assistant Secretary of Defense for Space Policy Steve Kitay, the force supports three goals: space superiority, space support to U.S. and allied forces, and stability in space.

The Space Force resides within the Department of the Air Force, its 16,000 active staff (most civilian) drawn from existing Air Force personnel. Thus, while General John Raymond, the first chief of space operations, declared that the Space Force "truly launches us into a new era," others argue that the Space Force amounts to little more than bureaucratic reshuffling and rebranding.

Still, there are indications that long-term thinking is much more ambitious.

A shifting warfighting calculus

As a dedicated warfighting service that includes both offensive and defensive operations, the Space Force signals the disruption of decades-long efforts to maintain outer space as a peaceful domain. While some accuse the United States of unilaterally turning outer space into a warfighting domain, U.S. leaders insist that the practice of peaceful use ended long ago, pointing to what they see as efforts by others to 'weaponize' outer space. And it is true that Russia and China are creating integrated warfighting missions that involve defensive and possibly offensive military capabilities in outer space, while the United Kingdom, France, and India are pursuing new, dedicated units focused on outer-space capabilities.

Warfighting has long been a function of space. The 1991 Gulf War is popularly described as the first "space war," driven by satellite systems. Concerns of vulnerability in space are also not new. In 2001, Donald Rumsfeld's Commission to Assess United States National Security Space Management and Organization warned of a possible "space Pearl Harbor."

But today, the focus is no longer simply on waging war from space but conducting war in space. This rightly raises alarms about arms races, conflict escalation, and indiscriminate harm to the environment and the global community.

Also significant is a perceived shift in the nature of conflict in outer space. The Rumsfeld Commission focused on asymmetric vulnerability in space: the potential for a surprise attack to debilitate U.S. capabilities. Such concerns persist, but military competition in outer space has taken on even greater significance. Today, in what then-Acting Defense Secretary Shanahan has called an "era of great power competition," the thinking is that the next big conflict could be "won or lost in space." Kitay views space power as central to "national power, prosperity and prestige." Other countries concur. China views space as central to "comprehensive national power."

Major global militaries now seem to view outer space as more than merely an enabler of warfighting. Space is being conceptualized as the future source of power itself—the new "high ground."

Who controls the future of space?

There are indications that strategic thinking within the Space Force is being influenced by the role of the Navy, including an extended mission described by Kitay as including "safe transit to and from space." Writing in *The Washington Post,* David Montgomery drew parallels to earlier debates about the Navy's expanding its role beyond "brown water" or territorial waters, where it provided "support for operations on land, ferrying troops and guarding coasts and rivers," to "blue

water" or the high seas, where it supported the "exploration of new lands, keep[ing] sea lanes open for commerce, project[ing] national power without firing a shot."

While the Space Force currently has a "brown water" mission, a "blue water" mission could be part of its not-too-distant future. Veiled statements by military officials indicate that its operations won't be restricted to the operation of satellites. Even the current National Space Strategy seems designed to support a more ambitious future in space, as it calls for "dynamic and cooperative interplay between the national security, commercial, and civil space sectors."

President Trump's 2020 State of the Union address reaffirmed "our heritage as a free nation" with roots as a "frontier nation." Referring to the new Artemis program to return U.S. astronauts to the Moon and beyond, he claimed that the United States must now "embrace the next frontier, America's Manifest Destiny in the Stars." It's not a stretch to believe that the U.S. Space Force is part of a longer-term struggle to control the future of outer space.

"Negotiated during the early years of the space age, the Outer Space Treaty not only imposed arms-control measures on the most heinous of weapons but enshrined such deeply held human-centred values as peacefulness, cooperation, and universal benefit in sanctioned space activities.

Rewriting the future

One pitch for the Space Force is that it will secure freedom of action in outer space, at a time when global economic activity in space is expanding. However, it is not clear that the Space Force will use only benign methods to maintain this freedom.

And outer space is not supposed to operate like the high seas. Negotiated during the early years of the space age, the Outer Space Treaty (OST) not only imposed arms-control measures on the most heinous of weapons but enshrined such deeply held human-centred values as peacefulness, cooperation, and universal benefit in sanctioned space activities. The treaty's overarching goal was to avoid the competition of great powers and colonialism in outer space.

A representative of the Space Force indicated that the OST still carries weight: "The Outer Space Treaty does not limit how states organize military forces. It does mandate there will be no weapons of mass destruction or military bases on celestial bodies—neither of which are implied by the creation of the U.S. Space Force."

It is reassuring to know that the U.S. government is adhering to what it sees to be the letter of the OST. But there is a significant gap between the narrow arms-control elements of the treaty and the broader values it enshrines. And there are rumblings that the OST is no longer seen to serve a useful role.

A January 2020 Congressional Research Service report, *Challenges to the United States in Space*, claimed that most experts deem "the diplomatic and legal frameworks to govern space as antiquated and inadequate." Speaking about U.S. ambitions on the Moon last year, Vice President Pence proclaimed that "the rules and values of space, like every great frontier, will be written by those who have the courage to get there first and the commitment to stay."

What role will the new Space Force play in writing those rules? □

Jessica West is a Senior Researcher at Project Ploughshares. She can be reached at jwest@ploughshres.ca.

Open-source research

Mining social media for peace

Kelsey Gallagher in conversation with Anthony Fenton

Evidence from social media is becoming essential to the study of modern conflict. Civilians and combatants are documenting war in real time, providing researchers with contemporary accounts, complete with photos and video.

Anthony Fenton (Twitter: @anthonyfenton, email: fentona@me.com), author and PhD candidate in Political Science at York University in Toronto, Canada, has been studying social-media use by combatants in the Middle East for several years. His open-source research and collected data are frequently cited by other researchers and human-rights groups.

Kelsey Gallagher: Describe what you do.

Anthony Fenton: My broader research project is about Canada's relationship with the monarchies of the Arabian Peninsula, such as Saudi Arabia. A subset relates to the proliferation of Canadian arms on burgeoning Middle Eastern markets, and the social relations that underpin Canadian arms sales to the region. I encourage media coverage by disseminating research discoveries.

Saudi Arabia stands out as the largest procurer of weapons in the region. I also follow the United Arab Emirates, Kuwait, and the other Gulf Cooperation Council states. I watch how these states move certain military goods outfitted with many Canadian components—for example, the Iomax Archangel attack plane.

KG: You rely heavily on social media for both data collection and dissemination. With the ubiquity of camera phones and social-media networks, conflict is better documented than ever before.

AF: Yes, social media give researchers like me more tools and data than we have ever had, and more opportunities to understand what's going on. On the other hand, the speed with which information is now shared necessitates a new level of "hyper-attentiveness." One needs to be as prepared as possible for the appearance of new and potentially actionable data.

KG: Discuss the role of social media on conflict.

AF: For example, recently, in major operations inside Saudi Arabia, Houthi rebels seized a record

number of what appear to be Canadian-made, General Dynamics Land Systems light armoured vehicles. The *Ottawa Citizen* ran a front-page story on it and then a follow-up piece.

Next, official Houthi media channels used the Canadian press coverage to boost their operations, saying, "Look! We made fools of both Saudi Arabia and Canada!" The article implied that what had been destroyed were new Canadian LAVs that the Saudis haven't even paid for yet, if reports that they are in arrears on the 2014 deals are true.

In reality, they were older LAVs. This incident shows the effects of this new style of media, which suffers from both rapidity and lag of information.

KG: Which groups are uploading videos and photos? What are their objectives?

AF: In the case of Yemen, you have several camps. On one side, rebel media. On the other, the pro-Saudi coalition media, which are most visible on social-media platforms.

A lot of the Saudi coalition social-media presence is "selfie" footage: "Look at us rolling through this part of the borderlands in our convoy"; "Look at me sniping." Many of these videos include Canadian sniper rifles, maybe a short clip of a Saudi soldier firing a PGW sniper rifle at an unknown target, with a caption like "We kill Houthis for fun."

The Houthi rebels are more likely to have GoPros on their foreheads, filming themselves in actual battles.

Either side in the conflict could be trying to document their gains in the civil war while, at the same time. motivating their own forces and demoralizing their opponents—or attempting to. There may be instances when footage is uploaded to mislead, which begs the larger question of verification.

There are also groups not engaged in combat, such as civil-society organizations, including international human-rights monitors, the UN panel of experts, campaigners, weapons-expert organizations, etc. All these different sources have different objectives in posting images and videos to social media.

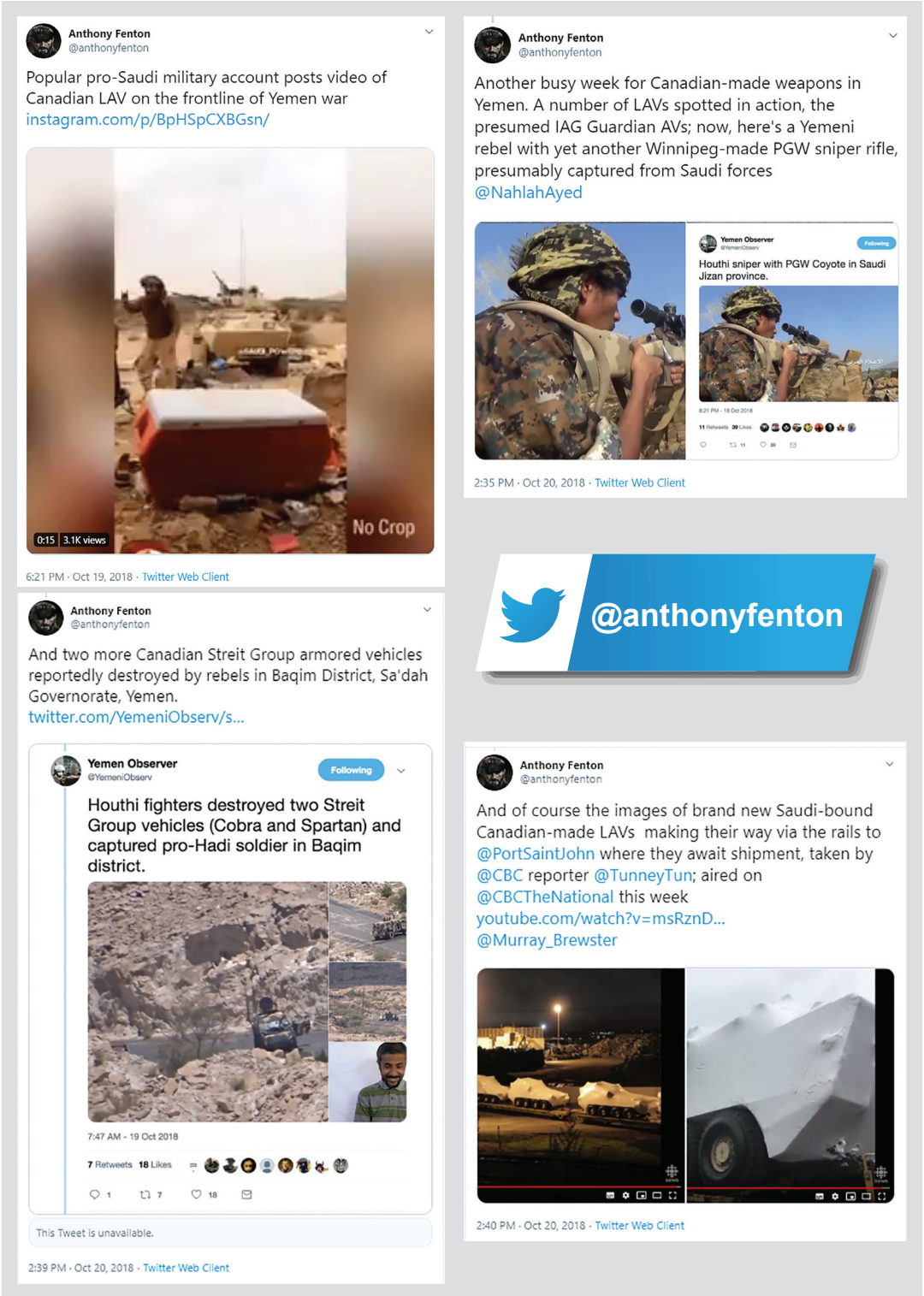
KG: What response do you get to your online activity?

AF: Take the example of Canadian armoured vehicles found in the summer of 2017 in Al Awamiyah, eastern Saudi Arabia. I had been tracking these vehicles for a couple of years. Then the Saudi Ministry of the Interior deployed them in a siege of Al Awamiyah. Saudi activists online initially misidentified them, but I realized that they were Canadian-made Terradyne Gurkhas.

I sent that data to a journalist, who then sent it to the Canadian government with the question, "What are you doing about this?" The information was compelling enough to start a government investigation and a temporary suspension of export permits for the company.

KG: What was the result of the investigation?

AF: The government basically said: "We would need to see a Saudi Minister of the Interior firing a weapon from one of these vehicles on a civilian



Anthony Fenton, author and PhD candidate in Political Science at York University in Toronto, Canada, has been studying social-media use by combatants in the Middle East for several years. His open-source research and collected data are frequently cited by other researchers and human-rights groups.

for us to take any sort of concrete action." The government claimed it had consulted with the Saudi human-rights commission, as well as allies on the ground. Of course, every one of those actors was going to say that the Canadian weapons were being used in a legitimate operation. The granting of weapon export permits resumed.

I've also tweeted about Canadian-made Streit vehicles countless times. About a hundred of them have been identified as destroyed in Yemen. But no Canadian media outlet will report on it.

KG: What other tangible effects has your work had?

AF: Disseminating information may have consequences for specific companies. It's hard to say.

One of the great things is that I've been able to connect with other researchers who are doing similar things in other parts of the world. They, in turn, have opened new, collaborative avenues of research.

Anthony Fenton has been studying social-media use by combatants in the Middle East for several years.

Let's look at the logistics of shipping weapons. The LAVs originate in London Ontario, go to whatever port of exit is currently used, are picked up by Saudi ships and carried to other parts of the world. In some cases, when these ships dock, they are met with resistance by dock workers or local arms-control campaigners, who may be better organized than we are in Canada. The information we can give them can be usefully employed there.

KG: Building linkages and international solidarity are useful for the global anti-war movement, the peace movement, the disarmament movement. What advice would you give to Canadian civil society on how to employ data-collection approaches to further their goals?

AF: Canadians might learn something from the United Kingdom civil society organization Campaign Against the Arms Trade. They're much better organized than anything in Canada, partly because they've been doing this work longer and because British society shares much deeper and broader ties with Saudi Arabia, the Gulf Cooperation Council militaries, and the ruling families there.

CAAT went to court and forced a suspension of the export permits to Saudi Arabia and the UAE. This is important, even though the UK government quickly found a way to ignore the judgement.

Part of my research is to discover the depth of Canadian ties to these royal families in the Middle East. If the Canadian media and civil society understood these relationships, there would be more of a digging-in and a permanent campaign against arms transfers for human-rights abusers.

So, what could civil society do with these processes of data collection? An outlet like Project Ploughshares or the Rideau Institute—any organization with the resources an individual researcher lacks—could take this information and publish a report. Then people could see the sheer amount of data, and that could start to change minds. Such a report might make the media pay attention.

This kind of effort needs longer-term thinking, with people committed to digging in for what is really a historic battle. After all, Project Ploughshares has been writing about the export of Canadian arms since the 1970s.

Today, we need a new conversation. □

A longer version of this interview can be found on our website at www.ploughshares.ca > Publications > Ploughshares Monitor.

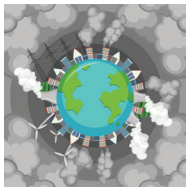
Kelsey Gallagher is a Researcher at Project Ploughshares. He can be reached at kgallagher@ploughshares.ca.

DEFENCE AND SECURITY CHALLENGES FACING CANADA

Between September and December 2019, Project Ploughshares conducted cross-country policy labs on future defence and security challenges facing Canada. Each policy lab, led by Ploughshares researchers, focused on challenges facing Canada in 10, 20, and 50 years. Stakeholders from academia, the military, civil society, and the general public gathered in Waterloo, Ottawa, Montreal, Halifax, and Vancouver to consider the complexities of the changing security environment that result from rapid advancements in technology. Together they worked to develop possible policy responses by the Canadian government while highlighting ethical, regulatory, political, and military implications.

KEY CONCERNS

CLIMATE + ENVIRONMENTAL SECURITY



Across the different cities, climate change was seen as one of the key threats that the Canadian society and government will have to address.

ECONOMIC AND POLITICAL STABILITY

The perceived global rise in authoritarian regimes was highlighted across different cities. Participants noted that maintaining strong democratic institutions should be seen as a priority.

TECHNOLOGICAL DISRUPTION

Concerns about use of artificial intelligence, cybersecurity, new weapons technologies, and increased use of disinformation campaigns were also seen as contributing to security threats at national and global levels. New technologies allow for quick spread of misinformation that in turn can undermine democratic institutions and create distrust in public institutions. Many participants also highlighted the role of private industry and surveillance capabilities of new technologies.

ISSUES THAT SHOULD BE GIVEN PRIORITY

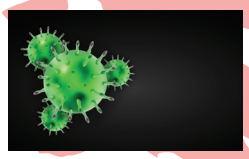
ARCTIC SECURITY

While Arctic security was mentioned in all discussions, there was general agreement that it was not prioritized. The perception was that while Arctic security was important, there was not enough understanding about its vital role in Canada's security. Promoting greater cooperation in the Arctic and addressing environmental impacts of future activities in the region were seen as key.

ROLE OF CHINA AND RUSSIA, GREAT POWER POLITICS

The political interplay between the United States, Russia, and China and implications for Canada remained in the background of discussions. Many participants felt that the attacks on the multilateral order by the great powers were detrimental to global security. Greater need to engage with like-minded countries was emphasized across different cities.

PANDEMICS



Concerns about global pandemics did not feature prominently in security and defence exercises or were seen only in the 20- or 50-year time frame. Participants debated whether pandemics require military responses, but quite a few remarked that militaries might be needed in response to outbreaks. Some examples included evacuations of individuals and assisting with responses.

WHAT PRIORITIES SHOULD DRIVE CANADIAN DEFENCE POLICY?

- Human Rights
- Peacekeeping
- Regional Alliances

HALIFAX

MONTREAL

OTTAWA

WATERLOO

In-depth conversation

The Nuclear Ban Treaty

Cesar Jaramillo talks with ICAN's Tim Wright about the significance of the Treaty on the Prohibition of Nuclear Weapons, its impact, and how close we are to a world without nuclear weapons.

Tim Wright (Twitter: @TimMilesWright) is Treaty Coordinator of the International Campaign to Abolish Nuclear Weapons (ICAN), which won the Nobel Peace Prize in 2017 for its work on the Treaty on the Prohibition of Nuclear Weapons (TPNW) or Nuclear Ban Treaty, which was adopted in July of that year. Project Ploughshares is an ICAN partner and campaigned in support of the TPNW. Cesar and Tim participated in the multilateral process on the humanitarian impact of nuclear weapons that preceded TPNW negotiations and in the negotiations themselves.

Cesar Jaramillo: Tell me a bit about the historical significance of the TPNW and its objectives. Why do you think it was necessary?

Tim Wright: Countries have voiced strong objections to nuclear weapons ever since the atomic bombings of Hiroshima and Nagasaki. In fact, the very first resolution of the UN General Assembly, adopted less than six months after those horrific attacks, sought to eliminate from national armaments "atomic weapons and all other major weapons adaptable to mass destruction." But it took more than seven decades for the United Nations to agree to a categorical global ban on nuclear weapons.

Without doubt, the adoption of the Treaty on the Prohibition of Nuclear Weapons in 2017, with the backing of 122 countries, was a momentous achievement. I think we will only fully grasp its historical significance in years to come. I hope we can look back on 2017 as a major turning point for humanity.

The treaty establishes a basic legal framework for the verifiable and irreversible elimination of nuclear weapons. I believe it's our best hope of moving from a world that is perpetually within a hair's breadth of catastrophe to one in which we can all live in freedom from fear of nuclear war.

CJ: The TPNW has now been signed by 81 states and ratified by 35, moving closer to entry into force. Are you optimistic about the pace of TPNW signatures and ratifications? How soon do you think the treaty will enter into force?

TW: I expect it will enter into force this year or early next year. Only 15 further ratifications are needed to make this happen. Many governments

have indicated to us that their domestic processes for approving ratification are now well advanced.

The pace of ratification to date has been comparable to that of other treaties relating to weapons of mass destruction. Though this treaty is still controversial in some quarters, it does enjoy very broad support. A large majority of the world's countries believe very firmly that nuclear weapons serve no legitimate military or strategic purpose and must be abolished as soon as possible.

Tim Wright, pictured here in Vienna, is Treaty Coordinator of the International Campaign to Abolish Nuclear Weapons. *Marcus Yipp/ICAN*

Regrettably, Canada isn't one of them, and it hasn't yet supported the treaty. But I think it will come onboard before too long. This isn't an especially radical treaty, as some might claim. It's a logical and sensible response to the grave threat that nuclear weapons pose to humanity. What's remarkable is that it wasn't negotiated sooner.

CJ: What do you think will change in the global nuclear disarmament and nonproliferation regime once the TPNW enters into force?

TW: I suspect we won't see sudden or rapid changes, unfortunately. But I'm confident that over time there will be very significant shifts in the policies and practices of many countries, including Canada, as the norms of the treaty become more deeply entrenched.

It won't be long before a number of countries that currently claim protection from an ally's nuclear weapons have the courage and good sense to break from the pack and join this treaty. And that in itself will be a very important contribution to disarmament. It will help erode the perception that nuclear weapons are somehow legitimate in certain hands.

The United States and other nuclear-armed countries rely very much on their allies' support in making their weapons seem acceptable. Every time that Canada votes against nuclear disarmament at the United Nations—which is alarmingly often—it offers tacit endorsement to the nuclear-armed states' behaviour. I hope Canada will soon become part of the solution, not the problem, as it currently is. Its accession to this treaty will help build pressure and momentum for disarmament.

Decisionmakers should remember that this treaty isn't going away. It's an integral part of the nuclear disarmament and nonproliferation regime and will remain so permanently. Canada will eventually feel compelled to join it. Reason and humanity will ultimately prevail.

CJ: Has the TPNW already yielded benefits, in your view?

TW: Yes, we are already seeing benefits, even before its entry into force.

First and foremost, the treaty has helped reframe the debate on nuclear weapons. It has set a clear new international standard that never under any circumstances is it acceptable for any country to use, develop, or possess nuclear weapons. That standard didn't previously exist in international law. This is an important starting point for meaningful action on disarmament.

We have also seen some quite tangible benefits

emanating from the treaty's adoption. For example, a number of major financial institutions have decided to define nuclear weapons for the first time as "controversial weapons" and consequently exclude nuclear-weapon producers from their investment portfolios. Previously, they had overlooked nuclear weapons—despite their devastating humanitarian impacts—because they were not subject to a comprehensive global ban.

Over the past few years, I think, we have also seen much greater parliamentary activity in support of nuclear disarmament. For example, in Belgium earlier this year, a motion to expel U.S. nuclear weapons from Belgian territory and join the ban treaty was put forward—and only very narrowly defeated. The closeness of the vote spooked many of those working hard to preserve the nuclear status quo in Europe. It demonstrates the great potential for change. I hope this parliamentary initiative, though unsuccessful in the immediate sense, will inspire parliamentarians in other NATO member states to act.

> "In the United States, for example, several state legislatures and major city councils have endorsed the treaty, helping shift the national debate away from a limited "nonproliferation" agenda and toward an "abolitionist" agenda.

CJ: Have you observed any interesting trends, regional or otherwise, concerning signature and ratification dynamics?

TW: The treaty enjoys very strong support in Latin America, the Caribbean, and the Pacific. These three regions are leading the way with ratifications. It also enjoys significant support across much of Asia and throughout Africa. For most countries, joining the treaty is an obvious move, given their longstanding opposition to nuclear weapons.

European countries have so far been the slowest to join, due in large part to the pressure exerted by the United States on its NATO allies. But sooner or later, NATO members will act out of principle—and indeed in their own interests—and start signing up.

CJ: Will ICAN's focus on treaty universalization continue after the TPNW enters into force?

TW: Yes. It's not enough to have just 50 countries on board. We need every last country. That's how we'll eliminate nuclear weapons and ensure they're never produced again. So ICAN will certainly be working to ensure that the remaining supporters—those that voted to adopt the treaty in 2017—complete their ratification processes.

At the same time, we will be strengthening our campaigning in countries that are not yet supportive of the treaty. We will continue presenting the clear and compelling humanitarian case for disarmament until our leaders are willing to act.

CJ: No nuclear-armed states have yet signed on to the TPNW. How do you respond to critics who challenge the value of the treaty on this basis?

TW: The nuclear-armed states strenuously resisted the adoption of this treaty. They protested outside the UN General Assembly hall when the negotiations began in early 2017. And now they're working energetically to discourage countries from joining.

If they thought this treaty would have no effect on them, they would be responding with a shrug. But, quite evidently, they understand very well the power and stigmatizing effect of international legal norms. They're fearful of the pressure this treaty will create once in force and once ratified by the vast majority of the world's countries.

That pressure won't just come from the rest of the international community. There will be domestic pressure, too. We are already witnessing this pressure in some of the nuclear-armed states. In the United States, for example, several state legislatures and major city councils have endorsed the treaty, helping shift the national debate away from a limited "nonproliferation" agenda and toward an "abolitionist" agenda. Even if the present leadership in these countries is unwilling to embrace the treaty, activity of this kind will set the stage for future administrations to chart a radically different course.

CJ: Do you think a non-nuclear-weapon state that is a member of NATO could join the TPNW in the foreseeable future? Is there an inherent incompatibility between NATO membership and the TPNW?

TW: I think it's inevitable. And when the first NATO state joins, others will quickly follow.

There's no incompatibility between this treaty and being a member of NATO. That is clear. The negotiators of the treaty took great care to ensure that countries could remain in alliances with nuclear-armed states. But they must agree never under any circumstances to encourage or assist a nuclear-armed state to use, threaten to use, or possess nuclear weapons.

There's much scholarship in support of the conclusion that NATO members face no legal impediment to joining the treaty. Their decision not to join the treaty is purely political. Of course, most of the leaders and policymakers in these countries don't seriously believe that U.S. nuclear weapons make them safer. But they're so afraid of ruffling feathers that they just sit back and say nothing. They've calculated that the cost of doing the right thing is greater than the cost of doing nothing. But a popular movement in support of the treaty could quickly change that calculus.

CJ: Are you aware of TPNW opponents who actively pressure other states not to join the treaty?

TW: Yes. We regularly receive reports from diplomats that the nuclear-armed states—in particular, the United States, France, and the United Kingdom—have aggressively lobbied them not to join. In many cases, the nuclear-armed states have preyed on countries that are heavily reliant on their aid.

But this kind of pressure has on occasion backfired, as it has prompted leaders to pay greater attention to the treaty and to take a stand. They resent being told what to do or not do, especially by former colonial masters. Ultimately, governments are accountable to their own citizens, not answerable to their powerful allies or former colonizers. Many diplomats have also reported that the pressure has disappeared as soon as their countries have ratified the treaty.

CJ: How do you understand the relationship between the TPNW and the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)? Complementary? Competing? Mutually exclusive? Must governments and/or civil society make choices about which process to support or where to expend energy and resources?

TW: Those who negotiated the Non-Proliferation Treaty more than half a century ago quite clearly envisaged the need, at some point in the future, for additional, complementary instruments to advance disarmament. This is apparent in the text of the treaty itself and in the negotiating records.

The Comprehensive Nuclear-Test-Ban Treaty, adopted in 1996, is one such instrument. The Treaty on the Prohibition of Nuclear Weapons is another. All of these instruments are mutually reinforcing. No one is arguing that past agreements should now be abandoned. Any government that says it's committed to the NPT and therefore can't support the TPNW is just misleading its citizens. This is an excuse for inaction.

We often hear nuclear-armed states make the extraordinary accusation that supporters of the TPNW are somehow undermining the NPT. But the TPNW is a much-needed reinforcement to

ICAN members react as the Treaty on the Prohibition of Nuclear Weapons is adopted in July 2017. *Clare Conboy*

the NPT. And the countries actually undermining the NPT are the nuclear-armed states, which continue to invest many billions of dollars each year in upgrades to their nuclear forces, with plans to retain them for decades to come.

CJ: The Doomsday Clock of the *Bulletin of the Atomic Scientists* is closer to midnight; the Iran nuclear deal is all but dead; the North Korea nuclear situation remains unresolved; the strategic relationship between Russia and the United States is increasingly challenging. These ingredients seem to contribute to a recipe for despair about the prospects for nuclear disarmament. How and why do you remain hopeful? Where do you see progress happening?

TW: There are many reasons for deep concern and alarm. Multilateralism and the international rule of law are seriously under threat. But times of crisis can lead to transformative change of the kind we so desperately need.

I hope that these very troubling developments serve as a wakeup call to decisionmakers in Canada and elsewhere. We can't idly watch as others take reckless steps that heighten the risk of nuclear weapons being used again, whether by accident, miscalculation, or design.

I remain optimistic for the future because I know that most people do support our cause and do care passionately about preserving our one precious home. And most countries don't want to see a recurrence of the atrocities of 1945. I see each new signature and ratification of the Treaty on the Prohibition of Nuclear Weapons as a small step toward our goal.

CJ: Analyses of the nuclear disarmament regime tend to focus on government policies and doctrines. What about grassroots movements, civil society advocacy, and public opinion? How influential are these in shaping the nuclear-disarmament landscape?

TW: Organized public resistance to nuclear weapons over the past seven decades has had a profound impact, without a doubt. I think many more governments would have gone down the path of developing nuclear weapons had it not been for the overwhelming public opposition.

I think the significant decline in the number of nuclear weapons in the world since the 1980s can be attributed to the global anti-nuclear movement. And I think fear of the public outrage and revulsion that would undoubtedly follow any nuclear attack has served as a major deterrent, so to speak. Many past leaders have spoken candidly about the effect of the disarmament movement

on their thinking.

In recent years, the global coalition of organizations that came together under the umbrella of ICAN certainly helped catalyze the negotiation of the Treaty on the Prohibition of Nuclear Weapons, which the Norwegian Nobel Committee acknowledged. And I believe it will be a civil-society movement that brings countries like Canada onboard with this treaty, as our elected representatives are unlikely to show leadership in the absence of public pressure.

CJ: Do you think the renewed attention to the humanitarian impact of nuclear weapons has influenced public discourse and attitudes about the threat of nuclear weapons? How?

TW: Yes, it has. You will notice that opponents of disarmament typically speak of nuclear weapons in very abstract terms. Rarely do they discuss what the weapons do to people and the environment. In fact, often they avoid referring to weapons at all. The weapons are reduced to a mere concept: deterrence.

Look, for example, at the British government's policy documents on nuclear weapons, and the term "nuclear deterrent" is invariably used, not nuclear weapons. Journalists unthinkingly embrace this language, and it becomes the accepted terminology. But it is just propaganda. It is part of a deliberate effort to make the public feel more comfortable with the retention—on their behalf—of instruments designed to inflict human suffering on a massive scale.

The concerted effort over the past decade or so by ICAN, the International Committee of the Red Cross, and many governments to put humanitarian concerns at the forefront of the debate on nuclear weapons has helped to demonstrate the urgency of action. I think many people have started to think more about what these weapons actually are, and to consider seriously the profound impact they would have across borders and generations, how they would affect the global economy, agriculture, food security, migration, and so on. More and more often, people are questioning the myths promoted by their governments.

CJ: What might be a best-case scenario concerning the status and impact of the TPNW over the next five years?

TW: The treaty will enter into force and continue to attract several new adherents each year. A number of NATO countries will have the courage to come onboard, which in turn will lead to the removal of U.S. nuclear weapons from Europe. Nuclear-armed states will feel much greater pressure than ever before to comply with their disarmament obligations, and new political pathways will open in these states to make serious progress toward eliminating their arsenals. A major divestment campaign will make involvement in the production of nuclear weapons unprofitable and a major liability for any publicly listed company. And serious steps will be taken to begin the long and difficult task of addressing the ongoing human and environmental harm inflicted by decades of nuclear testing around the world.

CJ: What would you say to the leaders of nuclear-armed states if you could address them?

TW: These weapons don't make your country safe. They make it less safe. They make us all less safe. Disarm and you will be celebrated for it.

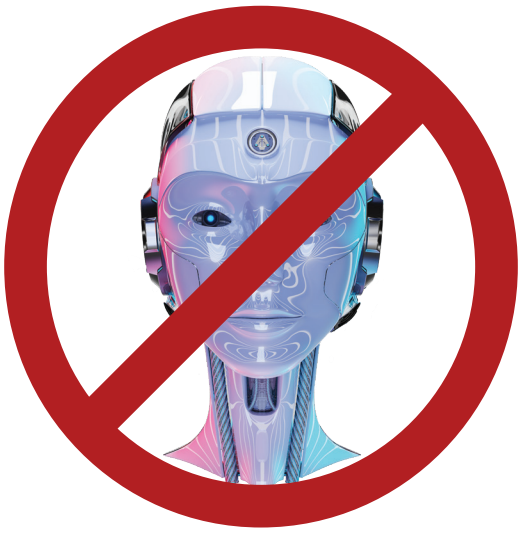
Remember that the vast majority of the world's nations don't have nuclear weapons and don't want to have them. All countries have security challenges of some sort. Yours are not unique, and they are certainly not addressed by having nuclear weapons.

Don't wait for these weapons to be used again before finally doing something to get rid of them. Any use will be a humanitarian catastrophe on a scale we've never seen before. Even if you have no direct involvement, you will unavoidably bear some responsibility, for you and your government have promoted the very sick idea that these are acceptable weapons.

They are not. They are the most anti-human devices ever invented. □

Arms Control

How Canada can get up to speed on the ban on autonomous weapons



Written by Branka Marijan

Disarmament and arms control have not featured prominently, if at all, in mandate letters to Canada's foreign ministers in many years. But at the end of 2019, Canadian Foreign Minister François-Philippe Champagne was given a new mandate to "advance international efforts to ban the development and use of fully autonomous weapons systems."

Before this, Canada had not been convinced of the need for new international regulations on autonomous weapons, arguing that existing international humanitarian law was sufficient to address the challenge. In other words, weapons that could make decisions on their own were already illegal and a ban was not needed. But countries that have taken this position have begun to vacillate as it has become increasingly clear that advances in artificial intelligence (AI), which further remove the human decision-maker from the actions taken by the weapons systems, result in novel challenges.

One wonders, then, if political positions were still in flux when Champagne outlined Canada's foreign-policy priorities at a February 21 event in Montreal and neglected to mention autonomous weapons or, indeed, any issues related to disarmament or arms control.

Such an omission does not necessarily indicate a lack of intent to fulfill the mandate. However, it does seem to suggest that Canada needs to dedicate more resources and effort to these particular concerns.

The next round of talks on autonomous weapons at the Convention on Certain Conventional Weapons (CCW) is scheduled for June 22-26 and August 10-14. Now is the time for Canada to get up to speed on the ban.

Advancing the ban

Currently, 30 countries, including Brazil and Austria, support a ban on autonomous weapons systems. Others are seriously exploring the issue.

At a seminar in Rio de Janeiro on February 20, Brazil reiterated its call for new regulation

of these weapons. Because of the pandemic, Germany had to postpone a March consultation in Berlin. Austria and Japan are planning events for early 2021.

> The vast majority of countries agree that decisions over human lives should remain firmly in human hands. However, some of Canada's traditional allies, including the United Kingdom, France, and Australia, are more optimistic about autonomous weapons technologies and see less need to emphasize this point. Australia, in particular, supports more autonomy in weapons systems.

Progressive states will need to address the lack of momentum at the CCW, caused by the opposition of key states such as Russia and the arguments of others that say a new legal document is premature. For instance, a negotiating mandate, which outlines the instructions that govern the negotiators, should be adopted quickly. Without such a mandate, no new legally binding instrument can be developed.

A new legal instrument would provide greater clarity on permissible types of weapons and uses. Under existing regulations, it is not clear who would be held accountable for any decisions made by a weapons system. This critical gap in accountability must be addressed.

Counterviews of allies

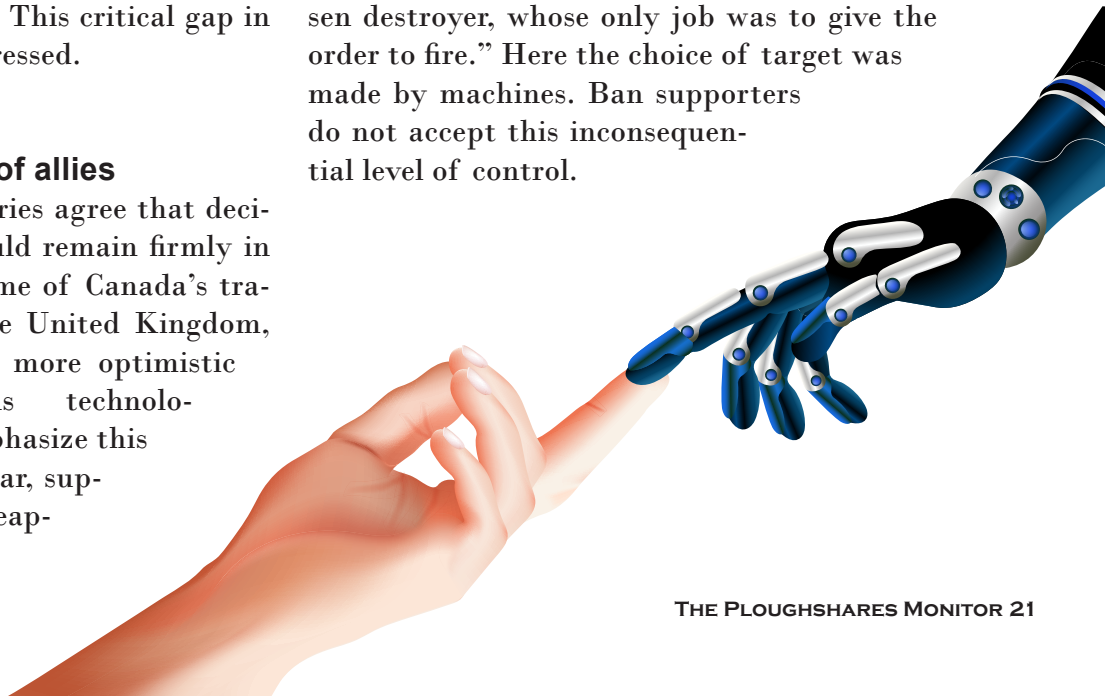
The vast majority of countries agree that decisions over human lives should remain firmly in human hands. However, some of Canada's traditional allies, including the United Kingdom, France, and Australia, are more optimistic about autonomous weapons technologies and see less need to emphasize this point. Australia, in particular, supports more autonomy in weapons systems.

According to a paper by the Australian government issued ahead of the March 2019 CCW meetings, Australia does not support use of the phrase "human control." Instead, it presents a model of a "System of Control" that covers "all aspects of a weapon system from design through to engagement." According to Ray Acheson, the Director of the civil-society organization Reaching Critical Will, this phrase seems to imply that "if the weapon will operate within specific rules of engagement and targeting directives, then these 'controls' are sufficient."

The need for human control

Ban supporters disagree, as they have during years of discussion at the CCW. They are adamant that the principle of meaningful human control over the selection and engagement of targets is essential to whatever legal instrument is developed.

In a recent article in *Foreign Policy*, Arthur Holland Michel reported an incident in which the U.S. Navy tested a network of AI systems. He noted that "the one human involved in this kill chain was a commanding officer on the chosen destroyer, whose only job was to give the order to fire." Here the choice of target was made by machines. Ban supporters do not accept this inconsequential level of control.



Stop Killer Robots campaigners pose at the Broken Chair statue in Geneva to commemorate victims of landmines and cluster bombs. *Clare Conboy*

How Canada should prepare to support the ban

If Canada is to fulfill its new defence mandate, it must develop a strong position in favour of a ban, which will need to include a clear explication of the appropriate level of human control over weapons systems. And the Department of National Defence and the Canadian Armed Forces will need to be fully supportive of that stand.

In *Strong, Secure, Engaged*, a statement of Canada's defence policy, there is this statement: "The Canadian Armed Forces is committed to maintaining appropriate human involvement in the use of military capabilities that can exert lethal force." Clarity is needed on what constitutes appropriate human involvement. As well, cases in which human control would not be appropriate or necessary should be clearly defined. For this, Canada will need to engage legal specialists.

Canada, home to leading AI researchers and specialists, is well positioned to hold successful, insightful discussions on autonomous weapons. The Canadian government is already a leader in the ethical uses of AI for government services; standards focus on fairness, "explainability" of decisions, and eliminating bias.

So far, such standards and policies have not been developed for the military. Clearly establishing such standards is now a priority.

There is much that Canada can do to prepare for the CCW meetings this year and beyond. Because CCW is frequently deadlocked, Canada and other ban supporters might need to go outside the CCW framework. Canadian leadership in such an endeavour would be widely welcomed. □

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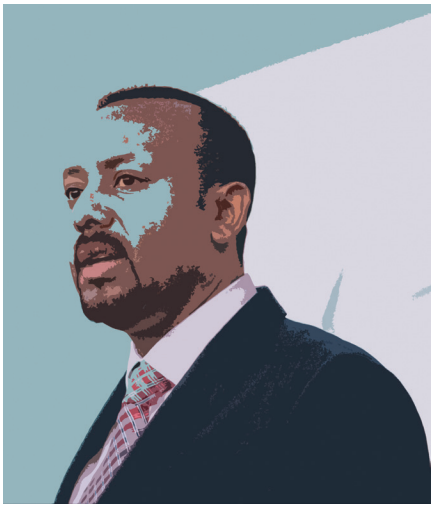
Nobel Peace Lecture 2019

Forging a durable peace in the Horn of Africa



By Abiy Ahmed Ali, Prime Minister of Ethiopia

We have an old saying: "yoo ollaan nagayaan bule, nagaan bulanni." It is a saying shared in many African languages, which means, "For you to have a peaceful night, your neighbor shall have a peaceful night as well." The essence of this proverb guides the strengthening of relations in the region. We now strive to live with our neighbors in peace and harmony.

The Horn of Africa today is a region of strategic significance. The global military superpowers are expanding their military presence in the area. Terrorist and extremist groups also seek to establish a foothold. We do not want the Horn to be a battleground for superpowers nor a hideout for the merchants of terror and brokers of despair and misery. We want the Horn of Africa to become a treasury of peace and progress. Indeed, we want the Horn of Africa to become the Horn of Plenty for the rest of the continent.

As a global community, we must invest in peace. Over the past few months, Ethiopia has made historic investments in peace, the returns of which we will see in years to come. We have released all political prisoners. We have shut down detention facilities where torture and vile human rights abuses took place.

Today, Ethiopia is highly regarded for press freedom. It is no more a "jailor of journalists." Opposition leaders of all political stripes are free to engage in peaceful political activity. We are creating an Ethiopia that is second to none in its guarantee of freedoms of expression. We have laid the groundwork for genuine multiparty democracy, and we will soon hold a free and fair election.

A famous protest slogan that proclaims, "No justice, no peace," calls to mind that peace thrives and bears fruit when planted in the soil of justice. The disregard for human rights has been the source of much strife and conflict in the world. The same holds in our continent, Africa.

It is estimated that some 70 percent of Africa's population is under the age of 30.

Our young men and women are crying out for social and economic justice. They demand equality of opportunity and an end to organized corruption. The youth insist on good governance based on accountability and transparency. If we deny our youth justice, they will reject peace. □

Join our work to advance international peace and security
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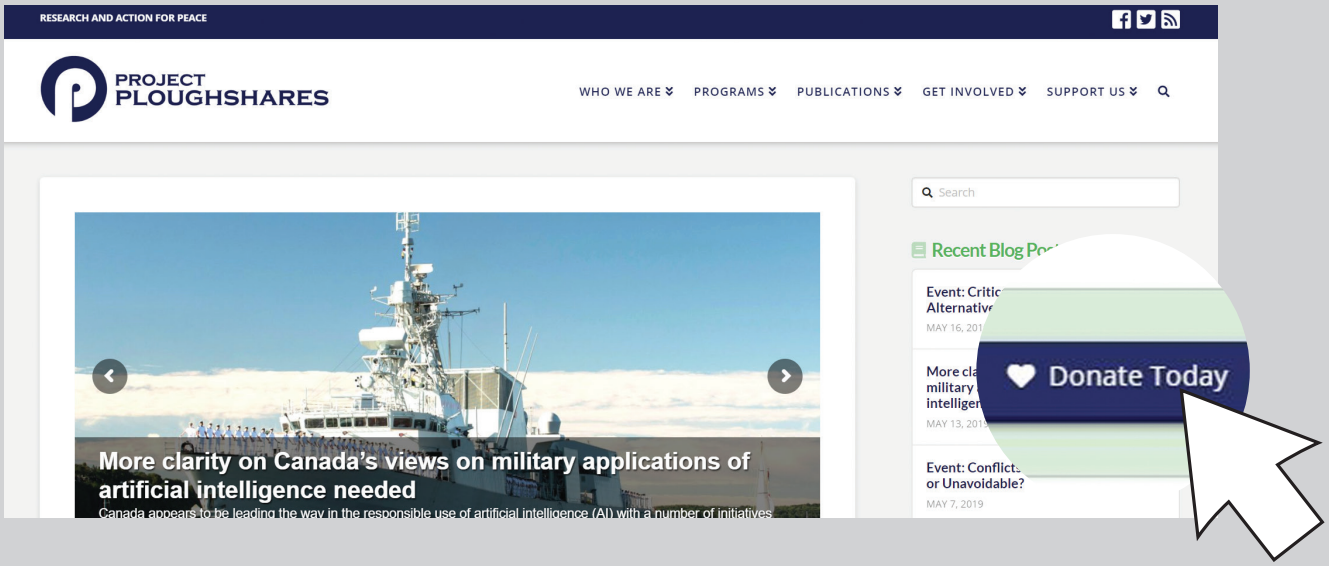

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