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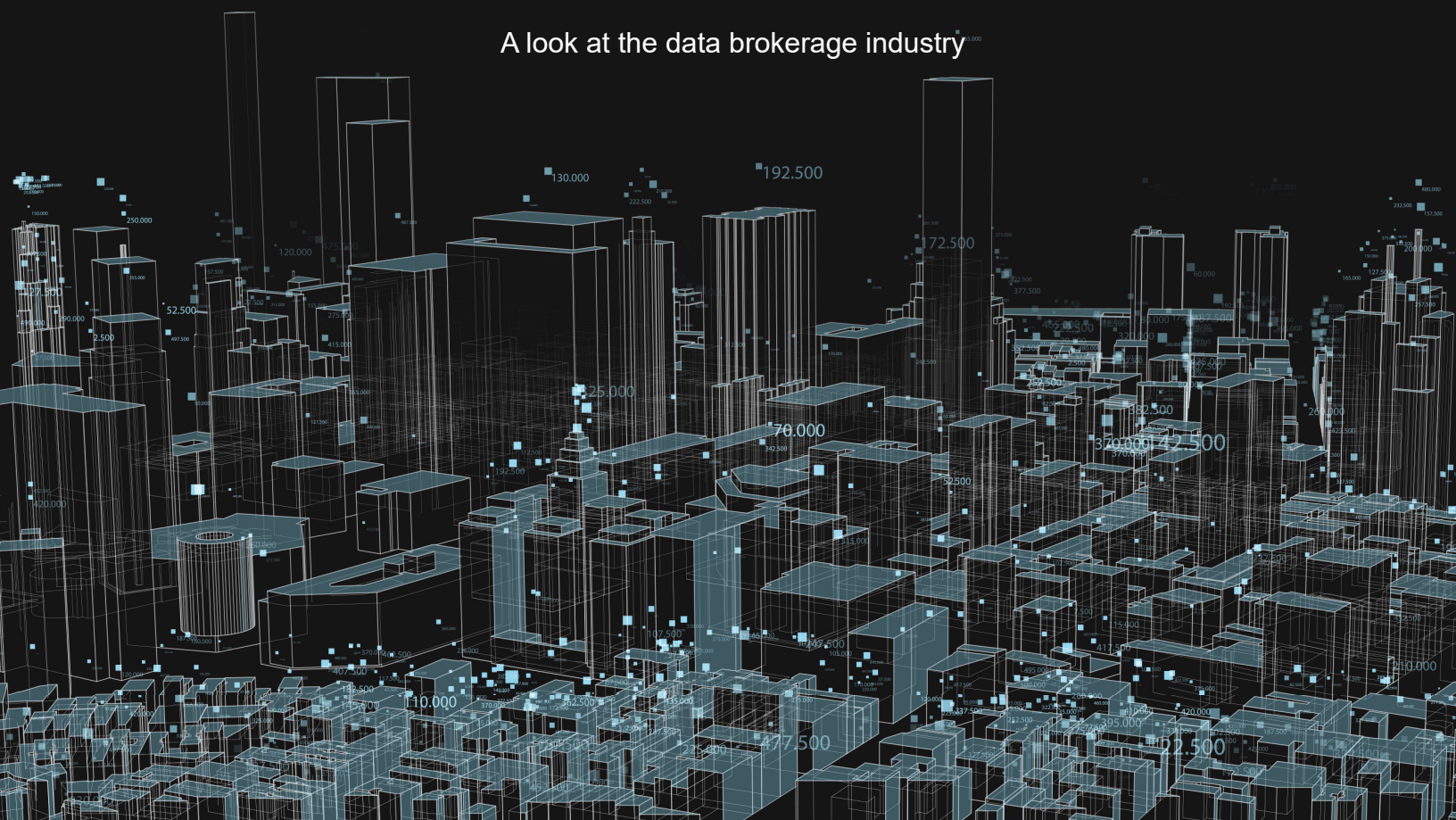

"and they shall beat their swords into ploughshares, and spears into pruning hooks; nation shall not lift up sword against nation; neither shall they learn war any more." Isaiah 2:4

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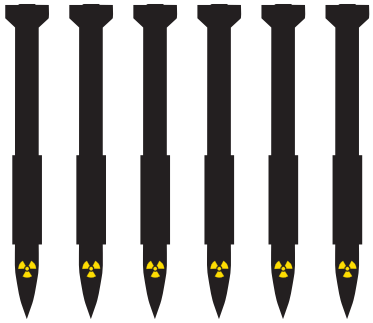
From the Director's Desk

2022 NPT Review Conference fails to deliver



Written by Cesar Jaramillo

The official record will show that Russia tanked the long-delayed and much-anticipated 10th Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), that it was the sole NPT state party to block consensus on the outcome document, and that the disagreement was ultimately over references in the text relevant to the ongoing conflict in Ukraine. This is all accurate—but only part of the story.

Profound rifts divided NPT States Parties from the beginning and prevented even modest progress. Ultimately, the main accomplishment of this conference was the further weakening of the NPT's credibility as a framework for nuclear abolition.

Unmet expectations

The world needed this Review Conference, delayed for two years, to make progress. To many states and civil society, progress primarily meant that nuclear-weapon states (NWS) that were party to the treaty (China, France, Russia, the United Kingdom, the United States) would commit to implementing concrete disarmament measures and reporting regularly on progress made.

But NWS wanted to retain their arsenals while still professing support for the goal of a world without nuclear weapons. At the Review Conference, they highlighted the centrality of nuclear deterrence in their security policies, spoke at length about the impossibility of committing to any type of nuclear disarmament schedule, and explained how international security conditions hindered implementation of their disarmament obligations. Seventy-seven years after Hiroshima and Nagasaki, more than 50 years after the entry into force of the NPT, and decades after the end of the Cold War, they insisted that undertaking disarmament measures was premature.

A cloud of discontent and frustration descended upon the conference as it neared its end. As states stepped forward to announce their intention to support the outcome document, most also lamented its lack of ambition, expressed disappointment at the weakness of the commitments, and acknowledged that they were signing on mainly to preserve the NPT regime.

Consensus on Ukraine elusive

The ongoing conflict in Ukraine dogged attempts to reach consensus. Most pertinent was the situation at the Zaporizhzya nuclear power plant, the object of active military activity and the subject of conflicting accounts – most of which placed primary or full responsibility on Russia.

Ukraine, with support from many delegations, wanted a clear acknowledgement that Russia was

the chief instigator of this nuclear safety and security crisis. However, everyone was certain that Russia would oppose any direct reference to its alleged responsibility, and no such reference appeared in drafts of the outcome document.

According to one account, Russia ultimately objected to a reference in the final draft to Ukraine's "internationally recognized borders." But these "internationally recognized borders" were non-negotiable for Ukraine, which would have predictably blocked consensus if the reference had been deleted. In the end, the words remained in the draft and Russia blocked consensus.

Red lines for all NWS

Russia blocked consensus because text in the outcome document crossed one if its "red lines." All other nuclear-armed states party to the NPT were ready to do the same if one of their red lines were crossed. This they made clear, repeatedly, at the Plenary, Main Committees, and Subsidiary Bodies. Somehow, they were more successful than Russia in keeping anything they couldn't live with out of the draft outcome document.

China was ready to block consensus if a moratorium on the production of fissile materials were included in the draft. France had references to "no first use" removed. The United Kingdom ensured that no commitment to offer unconditional negative security assurances to non-nuclear-weapon states (NNWS) was in the final document. AUKUS partners Australia (although not a NWS), the United Kingdom, and the United States had to be on board with any wording on naval nuclear propulsion. Iran and other Middle Eastern states wanted Israel included in a section of the outcome document on the pursuit of a nuclear-weapons-free zone in the Middle East, but this was certain to be rejected by the United States, and so no mention of Israel appeared.

Nuclear-armed states rejected any references in the outcome document to "benchmarks," "targets," or "timelines" for the implementation of concrete disarmament measures.

In retrospect, it seems obvious that the plethora of "red lines" set out by NWS and their allies made tangible progress on nuclear disarmament commitments unlikely at best. Even if Russia had not blocked consensus, the final document would have been devoid of any serious commitment to change the policies that most other NPT States Parties were clamouring to see changed.

NNWS in a nuclear alliance

A group of states sought a reference in the outcome document to the role of NNWS in nuclear military alliances and their responsibility to report on steps taken to reduce the salience of nuclear weapons in their security doctrines. NPT States Parties that are also members of the North Atlantic Treaty Organization (NATO) rejected any reference to commitments that it should assume. They also claimed that any reference to a NNWS subgroup would create a new category of states within the NPT that had not been agreed upon.

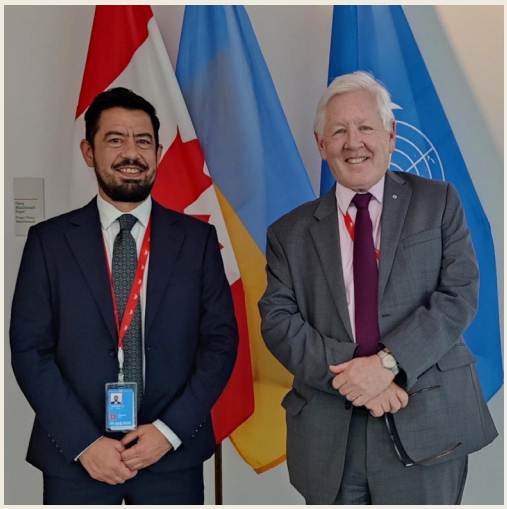
Yet NATO is itself a military alliance with an overt policy of nuclear deterrence and members that are both NNWS and NWS. Some NNWS European members host nuclear weapons owned by the United States on their territories. And all NATO members are States Parties to the NPT.

These complex relationships raise important questions about whether NATO members are complying with their obligations under the NPT. In Article 1 of the treaty, each State Party of the NPT with nuclear weapons "undertakes not to transfer to any recipient whatsoever nuclear weapons." Article 2 requires "each non-nuclear weapon State Party to the Treaty" not to receive them.

Cesar in Calgary – virtually!

On July 10, Cesar was the "virtual" guest speaker at an event in Calgary: "Ukraine and the Rising Threat of Nuclear Weapons." First, the audience watched the film "The Vow from Hiroshima," which is based on Setsuko Thurlow's experience of the bombing of Hiroshima and her lifelong fight to rid the world of nuclear weapons. This was followed by a talk by Cesar, who was in Ottawa at the time, and audience discussion.

Ploughshares Executive Director joins the Canadian delegation to the NPT RevCon



Project Ploughshares has been present at many international conferences, including review and preparatory conferences of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). This year, Executive Director Cesar Jaramillo, pictured here with Ambassador and Permanent Representative of Canada to the UN Bob Rae, was invited by Minister of Foreign Affairs Mélanie Joly to join the Canadian delegation to the NPT RevCon in New York City in August. He was delighted to accept this significant honour.

Following are excerpts from the invitation:

- Events of this year have only reinforced the urgent need to advance implementation of this Treaty, particularly its disarmament pillar. The Government of Canada will work closely and constructively with all partners to underscore the centrality of this Treaty to pursuing global non-proliferation, disarmament and the peaceful uses of nuclear energy.
- In support of this objective, I have the pleasure to invite you to join Canada's delegation to this Review Conference. Your perspective—as an esteemed civil society voice in this field—is a valuable one. I am confident that your participation will greatly benefit our delegation's efforts.
- I hope that you will avail yourself of this opportunity to advise our delegation, inform Canadian positions in negotiations and partake in conference deliberations.

Familiar attacks on the TPNW

As predicted, nuclear-armed States Parties to the NPT dismissed and rejected the Treaty on the Prohibition of Nuclear Weapons (TPNW). They alleged that the TPNW in fact undermined the NPT and was incompatible with it.

Supporters of the TPNW have countered that this new treaty is not only compatible with the NPT but constitutes a rare instance of its implementation. The NPT does not implicitly or explicitly dictate that nuclear disarmament efforts must be undertaken under its direct auspices.

TPNW supporters at the NPT Review Conference called for the outcome document to include a reference to the "complementarity" of the NPT and the TPNW. Of course, such a reference would have killed any chance for consensus and never appeared in any draft.

The final draft of the outcome document did acknowledge the existence of the TPNW, its entry into force, and the first Meeting of States Parties to the TPNW. A previous draft had indicated that the Meeting of States Parties of the TPNW had produced an outcome document and an action plan, but this factual reference was dropped. France and some other countries opposed any reference at all to the TPNW, but not to the point of breaking consensus.

Positive advances

The absence of an outcome document does not mean that the NPT Review Conference had no value. The mere fact that it was finally held and well attended is a positive measure of the ongoing commitment of states parties to the treaty and the objectives it embodies.

Each Review Conference presents a unique view of the thorny challenges facing the global nuclear disarmament and non-proliferation regime at that point in time. Important issues are aired, if not advanced or resolved.

The 2022 conference displayed a renewed emphasis on gender and the important role that women can and must play in nuclear abolition at every level of disarmament discussions. Champions including Canada, Sweden, and Ireland received widespread support for their new focus on

the gender dimensions of the effects of nuclear-weapons testing and use.

Nuclear risk reduction – concrete measures taken to minimize the possibility of an accidental or deliberate nuclear detonation – was prominently featured. Calls abounded for each NWS to commit to not being the first to introduce nuclear weapons into a conflict (no first use or NFU). While the one NFU reference in the final draft of the outcome document was promptly dropped, the positive response to this measure in sessions ensures that it will be taken up in relevant forums in the future.

Negative security assurances by NWS, which would guarantee that they would not use nuclear weapons against NNWS under any circumstances, were clearly wanted by many NNWS at the conference. However, NWS consistently resisted calls for blanket unconditionality.

While important issues were raised and discussed, there was no clear progress on concrete disarmament measures. With demand for such measures growing, this failure constitutes a critical shortcoming of the conference.

The fundamental point of division at the conference was never the Ukraine conflict. Rather, the essential divide was that NNWS wanted to chart a credible path to nuclear disarmament with concrete commitments and good-faith implementation, while NWS wanted to maintain the status quo. And the NWS won. For now. □

A more detailed response to the 10th NPT Review Conference can be found on the Ploughshares website, www.ploughshares.ca. See Death by a thousand red lines: The colossal failure of the 10th NPT Review Conference.

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

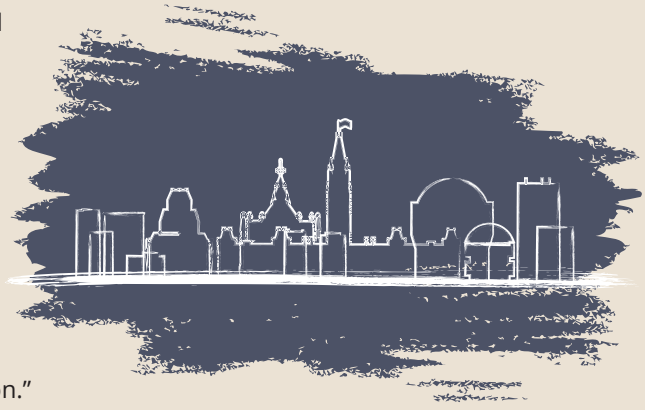
A trip to Ottawa

In May, Ploughshares Executive Director Cesar Jaramillo joined Dr. Jennifer Simons of The Simons Foundation and Ernie Regehr, former executive director of Ploughshares and chair of the Steering Committee of Canadians for a Nuclear Weapons Convention, in Ottawa meetings with "senior government and political figures." The aim was to discuss the nuclear-weapons crisis that has been made worse by the war in Ukraine. Between these talks, the three found time for an interview with *The Hill Times*, which appeared on May 19.

While this trio of advocates for nuclear disarmament expressed objections to Russia's threats to use nuclear weapons during the interview, they saw significant similarities between these threats and threats made by NATO. Ernie noted that NATO "still retains policy in which it's prepared under certain extreme circumstances to use nuclear weapons first."

Canada is both a member of NATO and of NATO's nuclear planning group and seemingly committed to this policy. But Jennifer raised the question: Would the Canadian public consider ANY use of nuclear weapons acceptable?

Cesar explained why the world community is getting "fed up" with the inability of the Nuclear Non-Proliferation Treaty to "deliver on the promise of nuclear disarmament." He pointed out the expensive upgrades that have been made to nuclear arsenals recently, which will "inevitably extend the shelf life of the arsenals and push the abolition goalposts even further."



All three want Canada to be more engaged in advocating for alternatives to the use of nuclear weapons. We've done it before, even in opposition to U.S. demands. While it can't change policy on its own, Canada can work with other likeminded states to bring about positive change. The end goal might take the form of the "new security architecture" advocated by Cesar, which would "replace nuclear weapons with other mechanisms of deterrence of large-scale aggression."

Educating a new generation about nukes

On June 9, Project Ploughshares held the first in a series of workshops on Canada, the growing nuclear threat, and the Treaty on the Prohibition of Nuclear Weapons (TPNW). This virtual half-day workshop, generously supported by a local agency, was designed to appeal to youth and faith-based groups. Information sessions were conducted by Ploughshares Executive Director Cesar Jaramillo, Matt Korda of the Federation of American Scientists, and Erin Hunt of Mines Action Canada.

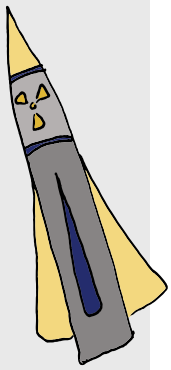
A new outreach project on nuclear weapons is particularly timely, for at least three reasons:

1. The war in Ukraine, which has generated threats that nuclear weapons could be employed, has made only too real the very grave dangers of these weapons.
2. This past June, the first meeting of states parties to the TPNW was held in Vienna, Austria.
3. And this August, the Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), scheduled for 2020, finally took place in New York City, after a long postponement because of the COVID pandemic.

Cesar provided a primer on the state of nuclear weaponization in the world today. He also offered a brief history of the TPNW and explained why so many countries felt it necessary to work around the NPT to get closer to the goal of no nukes. Other topics covered included the state of Iran's nuclear program, the drive for a Middle East Zone that is free of weapons of mass destruction, and relevant roles played by the United Nations and the International Court of Justice.

Cesar called on Canada to support the elimination of nuclear weapons. Canada, like all other members of NATO, has not joined the TPNW. Meanwhile, Canada participates in the North Atlantic Treaty Organization (NATO), a security alliance that relies on nuclear deterrence for protection.

Matt Korda provided excellent background information on nuclear weapons, especially in relation to NATO. Three NATO countries – the United States, the United Kingdom, and France – possess nuclear weapons. However, as far as Matt knows, only the United States shares its nuclear weapons, which are, or have been, hosted by seven countries, including Canada until 1984. So far, at least, the populations of countries that host or possess nuclear weapons tend to support their retention.



Erin Hunt provided a detailed explanation of the TPNW and its context. This treaty is based on a humanitarian approach, which attempts to limit the harm that weapons can do to people, particularly civilians. Key to this approach are the principles of proportionality – that the amount of damage caused by force must be proportional to the military goal – and distinction – that the user of a weapon must target only combatants and not innocent civilians or civilian infrastructure. An examination of these two principles shows that the use of nuclear weapons could never be legal under international humanitarian law.

The workshop was recorded and is now available on the Ploughshares YouTube channel. We believe that this recording can be useful to many groups and individuals who are interested in peace-and-conflict issues.

Gender-based violence

Canada's arms trade and violence against women

Written by Maya Campo

In 2017, Canada's Feminist International Assistance Policy (FIAP) became official. A message from the Minister of Foreign Affairs states that the policy's main objective is to "eradicate poverty" globally by addressing inequality, specifically gender inequality. FIAP is organized into action areas, with a core area of "gender equality and the empowerment of women and girls" linked to other action areas, including "peace and security."

Peace and security are to be achieved by "promoting inclusive peace processes and combatting gender-based violence," i.e., GBV or violence perpetrated on victims based on their perceived gender identity. The UN Refugee Agency notes that "GBV disproportionately affects women and girls" and this article focuses on this form of GBV, while recognizing that other groups also experience gender-based violence.

Although FIAP is intended to empower women, Canada is still exporting military goods to states that facilitate acts of GBV and, specifically, violence against women and girls. How can the Canadian government continue to sell weapons to these states and still meet the objectives of its feminist international assistance policy?

GBV and the arms trade

According to Reaching Critical Will, the disarmament program of the Women's International League for Peace and Freedom (WILPF), arms, some of which are the product of the international arms trade, can be used in direct and indirect acts of GBV. Small arms often facilitate direct acts of GBV, including femicide. Armoured vehicles and explosive weapons can also be used, indirectly, to perpetrate GBV.

When tanks surround and block villages, they can trap occupants and make them more vulnerable to rape, trafficking, and femicide. Bombing an entire village can also indirectly promote GBV. For example, the destruction of healthcare infrastructure can have an undue impact on maternal health or increase the marginalization and/or stigmatization of injured or maimed women.

Congolese activist Annie Matundu-Mbambi notes that weapons are "constantly used as a symbol of power and authority." Their persistent availability contributes to escalating conflicts. Although arms do not always facilitate direct acts of GBV, the proliferation of arms still results in dire domestic, political, and social consequences for women.

WILPF also explores the connections between gender, masculinity, and arms. Armed conflict often rewards masculine aggressiveness and further relegates women to roles of passive supporter or victim. Thus, armed conflict can encourage the normalization of GBV, specifically violence against women.

Even the prominence of male-dominated hierarchies around the world exacerbates GBV in conflict zones. Already marginalized in these societies, women are frequently targeted during armed conflict.

The Arms Trade Treaty and GBV obligations

In addition to its domestic commitments, Canada has obligations as a State Party to the Arms Trade Treaty (ATT) to consider the threat of GBV when exporting weapons abroad. The ATT explicitly recognizes the correlation between GBV and the international arms trade, requiring all States Parties to assess the risk that exports could be used to facilitate GBV or serious acts of violence against women and children (see Article 7[4]). Since acceding to the ATT in 2019, Canada's control regime goes further; if substantial risks of GBV or serious acts of violence against women and children are found, then the proposed export cannot be authorized.

Canada's arming of countries that commit blatant human rights violations, including gendered discrimination, can exacerbate GBV in conflicts involving those countries. It is notable that there is no public record that Canadian officials have ever denied the authorization of arms exports to protect against GBV.

The Canadian arms trade and GBV in action

Following are key country profiles that illustrate Canada's policy incoherency in relation to FIAP and the arms trade.

SAUDI ARABIA
Total value of arms imported from Canada (2016-2021): $8,099,616,306

Until the recent truce, the war in Yemen had been fueled by coalition forces led by Saudi Arabia, the largest recipient of Canadian arms exports (excluding the United States) for the last six years (see "Analyzing Canadian arms exports for 2021" in this issue).

The conflict has created a humanitarian crisis, especially for Yemeni women and girls, who were already vulnerable in their traditional society. As has been documented in other conflict-affected states, in Yemen, as more women and girls were displaced, more became susceptible to GBV, including sexual assaults, rapes, and sexual slavery. Coalition members, including Saudi Arabia, have been linked to this violence.

We believe that Canada has been arming a country that has facilitated acts of GBV outside its borders.

UNITED ARAB EMIRATES
Total value of arms imported from Canada (2016-2021): $108,978,381

The UAE is a member of the Saudi-led coalition discussed above. Until the pause in hostilities earlier this year, the UAE continued to contribute to the violence, participating in airstrikes.

As reported by credible human rights monitor Amnesty International, the UAE has been a conduit for the illicit diversion of Western arms, including armoured vehicles and small arms, to third parties in the conflict in Yemen.

These arms have been tied to an increase of GBV, specifically sexual violence, including rape and sexual slavery. As reported by the United Na-

tions High Commissioner for Human Rights, the diversion of small arms, in particular, can lead to more domestic killings (women are already disproportionately victims of domestic homicide).

We believe that Canada has been arming a country that has diverted arms to the conflict in Yemen, possibly exacerbating acts of GBV.

INDONESIA
Total value of arms imported from Canada (2016-2021): $31,963,470

As reported by United Nations News, indigenous West Papuans have been demanding independence from the Indonesian government. The Indonesian military has responded with violence, including the occupation of schools, hospitals, and churches; the burning of villages and animals; and the extrajudicial killing of civilians.

According to West Papuan women's rights advocate Esther Haluk, women are facing "layers of violence." As reported by *The Guardian*, West Papuan women who have been detained have experienced sexual violence, as have those seeking refuge from the Indonesian military and police. Women have also experienced an increase in domestic violence.

We believe that Canada is arming a country whose military and police employ tactics of GBV against civilians.

Promoting equality and peace

Despite its ATT and domestic obligations to assess the risk that arms exports could facilitate acts of GBV, Canada continues to authorize the export of weapons to countries in which such abuses are openly committed. Such actions contradict the letter and spirit of Canada's Feminist International Assistance Policy. If Canada is to contribute in a meaningful way to global peace and gender equality, it must apply FIAP to all international transactions. □

Maya Campo was a 2022 Ploughshares Peace Research intern.

Connecting the dots

In June, Amnesty International Belgium published *Observatoire des armes wallonnes*, a report on weapons exports from the Wallonia region in Belgium. It contained several intriguing references to the 2021 report by Amnesty International Canada and Project Ploughshares, *"No Credible Evidence": Canada's flawed analysis of arms exports to Saudi Arabia* (French version: *«Aucune preuve crédible» L'analyse fautive du Canada sur les exportations d'armes vers l'Arabie saoudite*).

The Belgian report summarized the main argument of the Canadian report: that Canadian arms sales to Saudi Arabia were contrary to both the Arms Trade Treaty and Canadian legislation. However, the interesting connection with Belgium was that the light armoured vehicles (LAVs) that constituted most Canadian transfers to the Saudis were equipped with John Cockerill 105mm turrets manufactured in Belgium. According to the AI Belgium report, the turrets were imported into Canada, installed on the LAVs manufactured by General Dynamics Land Systems-Canada and re-exported to Saudi Arabia. In the process, Canada became the main recipient in the Americas of Walloon military equipment.

The Belgian report also noted that the Canadian report mentioned an accusation that Saudi Arabia had diverted weapons from Spain, Germany, Belgium, and Serbia to the war in Yemen. However, according to the Belgian report, the Saudis had apparently assured the Walloon government that Belgian arms were only for internal use by the Saudi National Guard.

PLOUGHSHARES AT WORK

Kelsey Gallagher in Armenia

Wendy Stocker interviews Researcher Kelsey Gallagher

Wendy Stocker: I think that all the Ploughshares staff were slightly green with envy when we learned that you were travelling to Armenia this past June.

Kelsey Gallagher: I get that. Armenia is a very old and beautiful country. Armenians are hospitable, curious, and friendly. Armenia was a great place for a conference and is well worth a visit. It's a bit off the beaten track, but it boasts some amazing scenery and ancient buildings, including a cathedral that is considered by many scholars to be the oldest in Christendom.

WS: I know that your primary reason for going to Armenia was to be a panelist at a conference put on by the Center for Truth and Justice. Why was a representative of Ploughshares invited?

KG: Project Ploughshares was invited to present at the conference due to our work on monitoring the diversion of Canadian weapons to the conflict in Nagorno-Karabakh. These weapons were Canadian-made targeting and surveillance sensors used on Turkish-made drones. While they were originally authorized to be exported to Turkey, the Turkish government illicitly re-exported them to their ally Azerbaijan, which made considerable use of them in the conflict.

WS: I've done some exploring on the conference website and learned that there were people from a range of backgrounds there. What sort of connections were you able to make that could prove useful in your future work?

KG: The CFTJ conference provided the opportunity to meet academics and practitioners working broadly in the field of human rights, including individuals building smartphone apps to log human rights violations, lawyers who litigate against corporations that contribute to conflicts, and scholars of international humanitarian law.

Meeting other practitioners working in the field of human rights monitoring is always a great opportunity. Arms control wasn't a topic largely explored, except for the panel I presented on. Therefore, the conference provided the opportunity to meet others that are working in generally the same field, but with diverging approaches and interests. This exposure broadened my own perspective. I expect that I will find ways to interact with some of these people on projects of common interest in the future.

WS: Ploughshares hasn't focused on the Caucasus in the past. Is this a region we should be paying attention to?

KG: We should pay close attention to all

In June, Ploughshares Researcher Kelsey Gallagher travelled to Armenia to attend a conference put on by the Center for Truth and Justice. *Kelsey Gallagher*

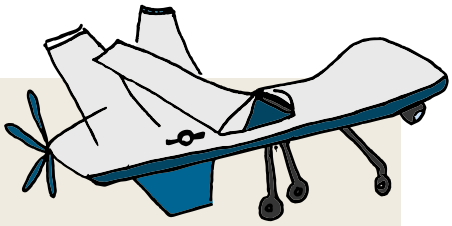
conflict-affected regions, and particularly those in which Canadian weapons play a role. This is undoubtedly the case in the Caucasus, as Canadian-made technology played an indispensable part in Azerbaijan's military operation in the most recent bout of violence in Nagorno-Karabakh. These drones, equipped with WESCAM sensors, were not only illicitly supplied to Azerbaijan, but remain in its possession, and would likely be used in further large-scale acts of war.

It is certainly true that civilians now living in Nagorno-Karabakh face some level of risk due to ceasefire violations in the border regions. Civilians suffered significantly during the 2020 violence.

WS: Did the war in Ukraine seem to be of interest to the Armenians you spoke with?

KG: The war in Ukraine is a major topic of interest in Armenia, especially due to the Armenian government's close ties to the Russian government. The average Armenian, like the average Canadian, simply wants to see the violence come to an end. □

Wendy Stocker edits The Ploughshares Monitor.



Project Ploughshares reports on drones to Ukraine

Project Ploughshares was mentioned in a major piece by Umar Farooq published on the ProPublica website on July 12. In "'The drone problem': How the U.S. has struggled to curb Turkey, a key exporter of armed drones," Farooq says that the war in Ukraine "has prompted a major effort to arm Ukraine, even in countries that had previously sought to stop or slow drone proliferation."

He then takes as an example Canada, which announced in March that it would send lethal and nonlethal aid, including "Canadian-made cameras" – the MX-15 optical system also exported to Turkey. The article then says:

> Even before the announcement, Project Ploughshares, the Canadian anti-arms-trade group, had concluded that Ukraine's TB2s were using the cameras. The analysis was based in part on Canadian export records and Ukrainian video of drone strikes that show the MX-15's distinctive overlay. Kelsey Gallagher, a researcher with the group, said the equipment had likely been exported to Ukraine instead of Turkey.

The article then notes that the Canadian government did not respond to questions for this story.

Kelsey Gallagher, third from left, participates in a panel on human rights. *Photo: courtesy of Center for Truth and Justice*

A human rights conference in Yerevan, Armenia

In early June, Ploughshares Researcher Kelsey Gallagher participated in the first annual conference of the Center for Truth and Justice, a U.S.-based non-profit organization that collects testimony from survivors of conflict.

The Center was established after the 2020 conflict in Nagorno-Karabakh, disputed territory in the South Caucasus. Both Armenia and Azerbaijan suffered military and civilian casualties in this conflict. A ceasefire agreement was signed by Armenia, Azerbaijan, and Russia in November 2020.

Under the banner "Human Rights and Accountability: The Aftermath of War," conference participants gathered from Argentina, Armenia, Australia, Belgium, Canada, France, Germany, Iraq, Nagorno-Karabakh, New Zealand, Palestine, Poland, Switzerland, the United Kingdom, and the United States. The event was conducted in English and Armenian.

Kelsey was on a panel entitled "The fight for international human rights in Canada." Fellow panelists were Izabella Khachatryan of the CFTJ law clinic in Yerevan, Armenia; Phillipe Larochelle of Larochelle Advocats in Montreal; and law professor Christopher Waters from the University of Windsor.

Kelsey's presentation focused on the use of Turkish Bayraktar TB2 drones or uncrewed aerial vehicles (UAVs) by Azerbaijan in the Nagorno-Karabakh conflict. More specifically, he explained how Project Ploughshares, an "arms control watchdog," determined that Canadian-made WESCAM sensors were on the 23 Bayraktar drones that Armenia employed. These sensors were critical; not only were they the eyes of the UAVs, but they were necessary "to fly a combat operation." There would have been no airstrikes without the WESCAM sensors.

Ploughshares had been tracking the export of WESCAM sensors to Turkey for some time and, just before war broke out in Nagorno-Karabakh, published a major report (see *Killer Optics* on our website). Evidence outlined in that report suggested that Turkey was diverting the drones equipped with WESCAM sensors. The 2020 conflict provided even more evidence that this was indeed the case.

In fascinating detail, Kelsey explained how evidence was assembled to make the case for illegal diversion from Turkey to Azerbaijan. Employed were a "bunch of different data sets," open-source information from social media, and posted propaganda by relevant governments. Kelsey showed how WESCAM's proprietary graphical user interface (GUI) could be spotted on images taken by the TB2 UAVs, indicating that WESCAM sensors were used.

The bottom line was that Canadian hardware was being used to launch airstrikes in the Nagorno-Karabakh conflict, although Canada had not authorized Turkey to send any sensors to Azerbaijan. Compelling evidence of such use was found on UAVs that came down during the conflict. Many photos were taken by local residents, and they provided strong proof of diversion, as Kelsey explained.

Kelsey also indicated that Canada should have known earlier that the sensors were being diverted. He called Canada's slow move to halt exports of sensors to Turkey a "failure of Canada's domestic control regime." He ended with the hope that this experience would serve as a case study for how ATT states should regulate the flow of weapons.

In the question period, Kelsey discussed the role of government officials who issue export permits. Governments control the flow of weapons and are being held accountable by some civil society organizations.

Kelsey's presentation and contribution to the question-and-answer period can be found on the Center's website at https://www.cftjustice.org/conference.

Analyzing Canadian arms exports for 2021

Written by Kelsey Gallagher

On May 31, the Canadian government tabled the *2021 Exports of Military Goods* report, providing details on reported Canadian arms exports and brokering of military goods for that year. The total value of these exports was the second highest in history: $2.73-billion. As has been true in recent years, most exports were light armoured vehicles (LAVs) destined for Saudi Arabia; however, exports to non-Saudi destinations also hit historic highs.

This report can be criticized for being untransparent and incomplete. For example, most exports bound for the United States were not included, even though the U.S. is a major importer of Canadian weapons.

Moving Canadian weapons

The current report contains information on exports and brokering of military goods to 81 countries and territories in 2021. The five top non-U.S. destinations by export value were Saudi Arabia ($1.7-billion), Japan ($280.4-million), the United Kingdom ($115.5-million), Germany ($67.8-million), and Ukraine ($54.9-million).

Saudi Arabia has been at the top of this list for the past six years, with arms exports consisting almost entirely of armoured combat vehicles. Most, if not all, have been light armoured vehicles (LAVs), manufactured by General Dynamics Land Systems-Canada (GDLS-C) in London, Ontario. Saudi Arabia was also the recipient of 14 categories of armaments with a total value of more than $122-million. This value is larger than the reported value of arms exports to any other individual non-U.S. destination, excluding Japan.

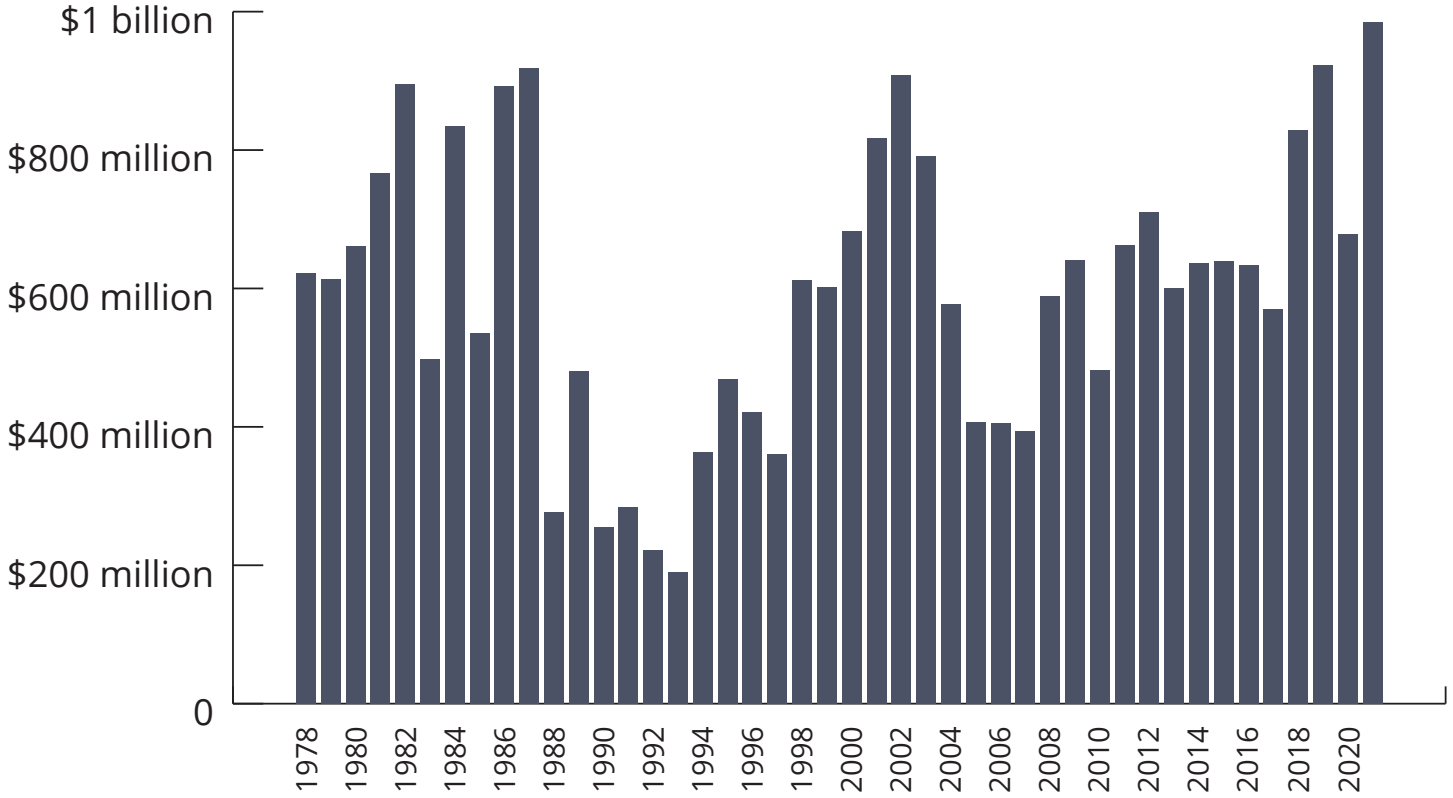
Exports to the United States?

The United States is Canada's largest trading partner for both commercial and military goods. Although the scale of military exports to Saudi Arabia has disturbed this pattern in the last few years, typically, more than half of all Canada's weapons exports each year go to the United States. Despite their significance, these exports are largely excluded from the public report.

In 2016, Canada began including in the annual report information on exports to the United States of firearms, larger calibre weapons, ammunition, and bombs and their components. Canada includes in reports to the UN Register of Conventional Arms and the Arms Trade Treaty (ATT) secretariat data on exports of "full systems" to the United States. However, many Canadian military exports to the U.S. are parts and components, most of which are not captured in these alternative reporting formats.

The result is a serious undervaluation of the Canadian arms trade. The systematic omission of

VALUE OF TOTAL NON-U.S./NON-SAUDI CANADIAN ARMS EXPORTS BY YEAR (1978-2021)



information on some transfers of military goods to some foreign countries, for whatever reason, is inconsistent with the spirit and letter of the ATT. The treaty calls for greater transparency of arms transfers and requires that controls be implemented in an objective and nondiscriminatory manner.

Factoring out the biggest players

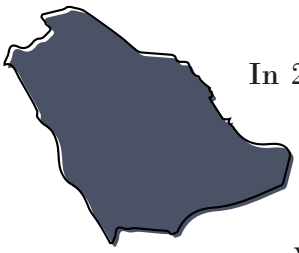
Plotting the annual values of reported Canadian military exports on a historical timeline gives the impression that the non-U.S. Canadian arms trade has grown substantially since 2017. But this increase is largely due to LAV exports to Saudi Arabia. Removing Saudi Arabia from the mix offers a more nuanced view of general trends. Total reported Canadian military exports in 2021 to all countries except the United States and Saudi Arabia were valued at $984.3-million, the highest reported figure in the 40 years that this data has been collected.

Exports to conflict-involved states

In 2021, Canada exported weapons valued at more than $1-million to each of 11 states involved in interstate or intrastate conflicts or tensions.

While ATT States Parties are obligated to assess the risk that arms exports may undermine peace and security, they are not forbidden from providing weapons to conflict-affected states. It is indisputable, however, that a sizable portion of total Canadian arms exports can be seen as contributing to national and regional insecurity in some instances.

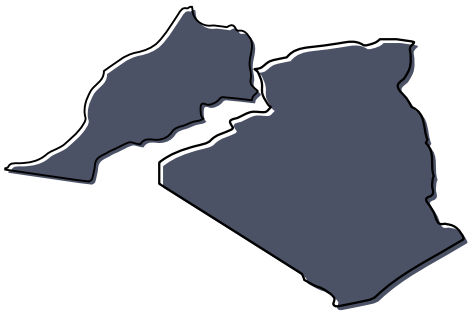
SAUDI ARABIA



In 2014, the Canadian government announced a $14-billion deal to supply hundreds of LAVs to Saudi Arabia. The following year, Saudi Arabia spearheaded a coalition that launched an intervention in the civil war in Yemen, a conflict that has so far killed nearly 400,000 people. There have been many credible allegations that this coalition has breached international humanitarian law, committing acts that are possibly commensurate with war crimes.

In 2021, Project Ploughshares and Amnesty International released a major report that indicated that Canada's export of LAVs and other military equipment to Saudi Arabia was a violation of its obligation under the ATT to assess risk objectively and cancel export permits if undue risk could not be mitigated. The Canadian government has not made an official public response to these findings, and exports of Canadian weapons to Saudi Arabia continue to this day.

ALGERIA AND MOROCCO



Rising geopolitical tensions have fed an arms race between Algeria and Morocco. A breakdown in diplomatic communication in 2021 has raised fears that open conflict could break out between the two states.

In 2021, Canada shipped to Algeria arms worth $34.7-million, the highest value since 1987. Canada also sent Morocco arms valued at $22.2-million, the highest value ever to that country. Exports included L3Harris Wescam EO/IR surveillance and targeting sensors for use on Morocco's newly acquired Bayraktar TB2 Uncrewed Aerial Vehicles (UAVs).

ISRAEL

Israel's 11-day bombardment of Gaza in May 2021 likely resulted in between 151 and 192 civilian deaths and scores of injuries. Israel's ongoing occupation of the West Bank and other territories has led to calls from credible human rights monitors for a comprehensive arms embargo. And yet, in 2021, Canada exported to Israel weapons valued at $26-million, one of the highest figures ever to that country. Included were fire control equipment, bombs and associated components, and electronics and spacecraft.

Brokering data

As required under the ATT, Canadian officials now regulate the brokering of military goods, i.e., the facilitation by a Canadian entity of the transfer of arms from one actor to another. Officials authorize the brokering of military goods to "low-risk" countries by issuing a General Brokering Permit No. 1. Any brokering transaction involving other states requires an individual Brokering Permit.

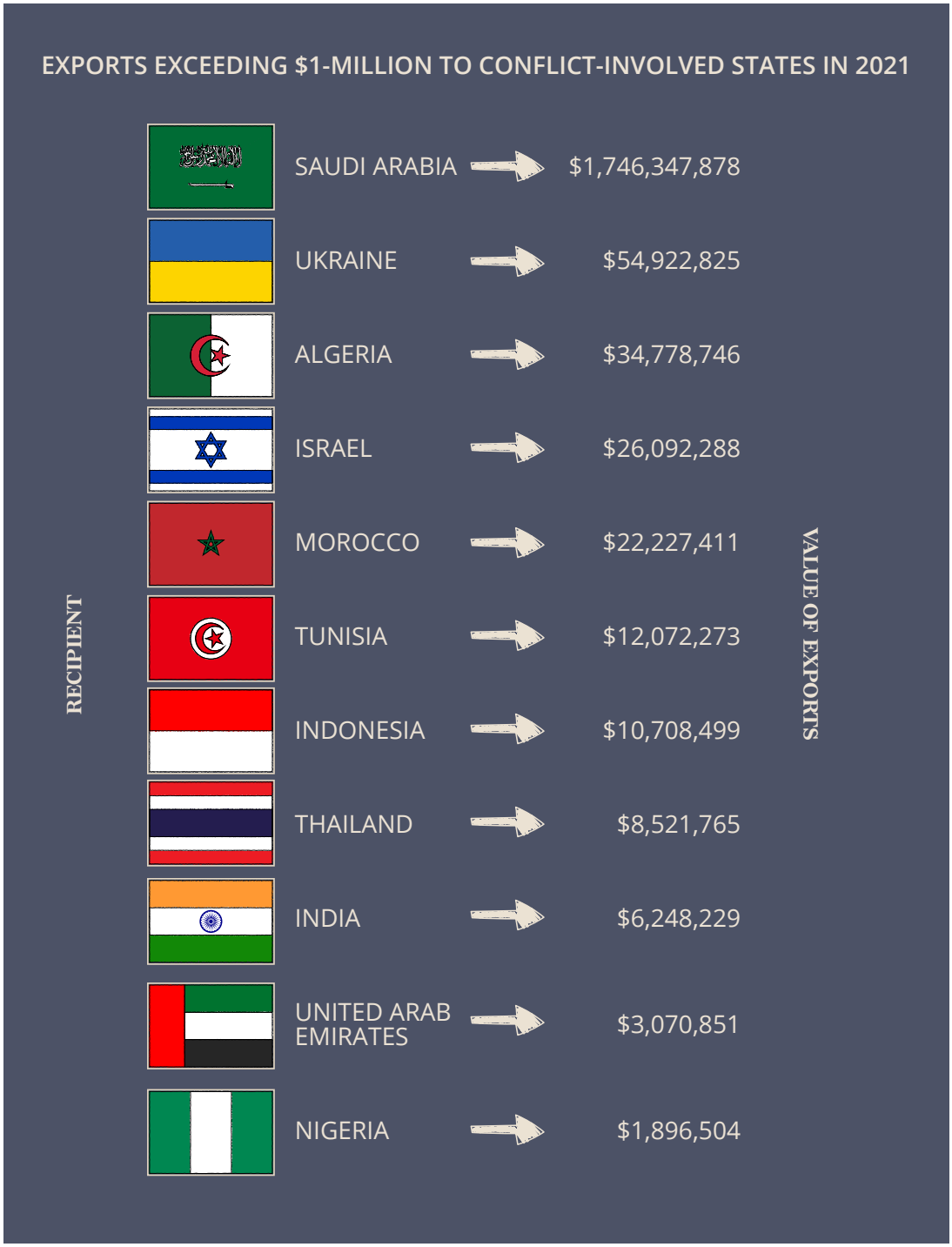
Canadian officials issued Brokering Permits worth $755.6-million in 2021. Most were for military goods from the United States that were destined for Saudi Arabia. Other top destinations included Chile, Bulgaria, and Morocco.

Authorizations for both the export and brokering of military goods are subject to risk assessments. However, there is some evidence that Canadian brokering controls face a lower regulatory threshold than initially reported.

A rosy outlook for the Canadian arms trade

Whichever way one looks at the data, it is a fact that Canada is exporting more weapons than ever before. Many of the top recipients are engaged in human rights abuses, at home or in other countries.

Defence market analysts predict that the international arms trade will experience explosive growth in response to Russia's invasion of Ukraine. Canadian suppliers will likely participate in this growth, which we anticipate will be reflected in future reports of Canadian arms exports. □



A full analysis of the 2021 report on Canada's export of military goods will be posted on the Project Ploughshares website.

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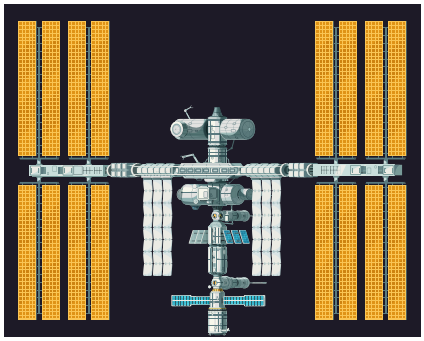
After the ISS

Why cooperation in space remains essential



Written by Jessica West

Just as China's first permanent space station Tiangong ("heavenly palace") nears completion, the International Space Station (ISS) is, apparently, nearing its end. With war in Ukraine as a backdrop, Russia has stated its intentions to withdraw from the partnership that built and has maintained the ISS as a permanently crewed human habitat in low Earth orbit for more than 20 years.

While it might seem that a solid foundation of cooperation has been replaced by an irreparable rift, a brighter future is possible. A new path for cooperation can be found – we just need to start looking.

A crumbling bridge

Beginning in 1998 with the United States and Russia, the partnership that built and maintained the ISS quickly expanded to include five space agencies (including the American NASA and Russian Roscosmos) representing 15 countries, including Canada. The single largest and most expensive space venture ever undertaken, the ISS has hosted more than 250 astronauts from 19 countries.

While influenced by geopolitical and national security dynamics, the space station has largely transcended tensions on Earth, including political fallout related to Russian interventions in Ukraine in 2014. In 2020, then European Space Agency Director General Jan Wörner described the ISS as "a bridge over troubled water."

The station is the marriage of two separate but co-dependent units. The American-led module provides most of the electricity for the station, while the Russian provides the necessary propulsion to maintain the space station's orbit. However, the station is aging and was originally scheduled to be retired in 2024.

Before the war in Ukraine, there were some efforts to extend the life of the ISS. Russia talked about extending its mission until 2030. NASA originally sought an exit in 2024 but tried to interest the private sector in taking over the U.S. module. NASA has since officially extended its mission until 2030, while Russian officials are now talking about leaving the ISS "after" 2024 to focus on a separate Russian space station.

For now, it is business as usual; NASA and Roscosmos recently finalized an agreement for an upcoming crew swap. It is far from clear that Russian plans for an independent station will ever materialize. Russia's civil space program has experienced a swift decline in the last decade as Russia's space interests have shifted to military activities.

But the Russian attitude toward the ISS in the last year has drawn the world's attention. In February, then Roscosmos Director General Dmitry Rogozin threatened on Twitter to drop the ISS into the ocean. The previous November, a debris

Five men (clockwise from back left), Thomas P. Stafford, Aleksey A. Leonov, Donald K. Slayton, Vance D. Brand, and Valeriy N. Kubasov made up the two prime crews of the first-ever two-nation cooperative space mission, the Apollo-Soyuz Test Project. *Public Domain Photo*

cloud deliberately created by a Russian anti-satellite weapon test physically threatened the structural integrity of the station and the lives of the seven astronauts on board.

And it is certainly the case that the current ISS partnership is feeling the effects of the Ukraine-based conflict on Earth.

Although partners are considering ways to keep the ISS flying in Russia's absence, patterns of cooperation in space are already diverging as actors pursue different projects. The United States, various European countries, Canada, and Japan – all ISS partners – are participating in the expanding U.S.-led Artemis program to create a permanent human presence on the Moon. Russia is partnering with China on a separate lunar base.

In these times of increasing geopolitical tension, we need to prioritize efforts to maintain points of technical and diplomatic cooperation in space.

The value of cooperation

Such cooperation is necessary – not just nice to have. Space presents a difficult, dangerous, and remote operating environment for humans. Space exploration, with its high costs and technical challenges, is almost impossible without the pooled resources of many parties. Such cooperation and collaboration expand both individual and collective capacities. And, while cooperation can be confined to close allies, the achievements of the ISS reflect the value of cooperating more broadly.

Technical cooperation between the United States and the Soviet Union began with the 1975 Apollo-Soyuz Test Project. The result was the first international human spaceflight. During the nine-day flight, an Apollo spacecraft carrying three American astronauts docked with a Russian Soyuz spacecraft with a crew of two. The mission allowed both countries to test the feasibility of international space rescue through compatible rendezvous and docking systems. It also tested the viability of cooperation on more sensitive areas of technology. This cooperation, which included the exchange of scientific data related to ongoing space probes and robotic missions, continued during and after the Cold War.

Other practical benefits of cooperation in-

clude the potential for enhanced mutual security. A core motive for the ISS program involved channeling space science and technology skills away from potential weapons proliferation and toward mutually beneficial civil space activities. Collaboration also encourages transparency and promotes a shared understanding of space activities that contribute to mutual security. Working and living together in outer space promotes cultural understanding and the basic level of trust that comes from facing and overcoming a common challenge.

Cooperation on norms

The lack of Western collaboration in China's space exploration program has been a key misstep, especially in light of disintegrating cooperation with Russia. New avenues for both technical and diplomatic contact and coordination are essential for continued safety and security in space. With rising geopolitical tensions in space and on Earth, ongoing work to develop norms of responsible behaviour for outer space at the UN can provide a foundation for this effort.

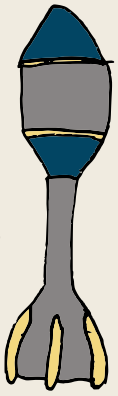
Current discussions focus on military or security-related activities in space that avoid misperceptions, misunderstandings, mistrust, and inadvertent escalation of conflict. The best outcome would include agreement to high-level principles and articulation of a shared understanding of what they mean in practice. Such principles in turn could contribute to further cooperation on both practical and diplomatic fronts in the future. But even if such agreement proves politically elusive for now, the very process of having the discussion opens the door for a better understanding of how others see the rules of operating in space, which could help us to avoid the worst outcomes of the current rift.

Remembering the light

At some point, the ISS will fall to Earth, a ball of fire in the sky. Its legacy, in part, depends on how we tell its story. Some might see in it a warning about the vulnerability inherent in cooperation and mutual dependency. Yet we must remember how well the space station has served the international community for many years, reaping benefits that have extended far beyond space. The International Space Station should be forever remembered as a beacon of cooperation, casting light on the world. □

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

Protecting civilians from explosive weapons



On June 17 in Geneva, Switzerland, consultations concluded on the final text of the "Political Declaration on Strengthening the Protection of Civilians from the Humanitarian Consequences Arising from the Use of Explosive Weapons in Populated Areas [EWIPA]." As he had been for almost three years, Project Ploughshares Executive Director Cesar Jaramillo was there to represent Ploughshares and the SEHLAC Network on human security in Latin America, both members of the International Network on Explosive Weapons (INEW). Also present at this consultation were other members of INEW, as well as representatives of Member States, the United Nations, and the International Committee of the Red Cross.

Cesar presented remarks during the final session. After expressing "sincere gratitude to Ireland" for leading the process, he emphasized "our view that the need to comply with IHL [international humanitarian law] is self-evident and should be seen as a minimum baseline for the implementation of the political declaration, not its sole objective."

Because "civilians continue to bear the brunt of armed conflict," hope was expressed for the broad endorsement of this declaration, which "constitutes a positive contribution to the multilateral normative regime concerning the protection of civilians in armed conflict." Currently, about 90 per cent of the casualties of EWIPA are civilian.

He concluded by reiterating "the spirit and intent of this process": "to strengthen the protection of civilians by moving away from the use of EWIPA."

Tracking us all

A look at the data brokerage industry

Written by Mehnaz Hossain

In 2016, Cambridge Analytica processed supposedly private data from millions of Facebook users to create psychological profiles that were then sold to the Trump campaign. These profiles were used to target American voters.

In 2020, Vice Media's Motherboard broke the story "How the U.S. military buys location data from ordinary apps." It revealed that Muslim Pro, a popular Muslim prayer app, was selling its users' location data to defence and military contractors.

In 2021, Monsignor Jeffrey Burrill, an administrator for the U.S. Conference of Catholic Bishops, resigned after a newspaper bought cellphone and geo-location data that showed his activity on LGBTQ+ social app Grindr and tracked him to gay bars.

In these examples, commercial data brokers scooped up and commoditized swaths of private data in a new and insidious form of mass surveillance. They sold data to third-party industries for profit, largely without the informed consent of those surveilled. In many ways, this new generation of surveillance capitalism is the most dangerous yet.

Mass surveillance in the 21st century

Mass surveillance has mostly operated just below the level of public awareness, often targeting specific communities that governments have deemed threatening. Following 9/11, U.S. surveillance targeted Muslim-Americans and foreign nationals from Muslim-majority countries. Royal Canadian Mounted Police have regularly surveilled indigenous communities in Canada, including the 2011 closed-door meeting of the Yinka Dene Alliance.

Edward Snowden's 2013 leak of the U.S. National Security Agency (NSA) program PRISM revealed the broad scope of government surveillance and the indiscriminate collection of the private data of almost everyone. Snowden revealed that the NSA was monitoring the phone calls of Brazil's then President Dilma Rousseff and Brazilian embassies while also spying on Petrobras, Brazil's state oil corporation.

Enter commercial data brokers

The newest entries into the world of mass surveillance are firms of commercial data brokers, which collect and sell the private information left behind by almost everyone who uses the Internet.

It is disturbingly easy to buy and sell an individual's private data. Each time we visit a website, open an app, or use the GPS on our phones, we are subjected to 'cookies' that, usually under the guise of improving user service, collect user data and track Internet activity. But cookie

'crumbs' can reveal an individual's demographic data, locations, and habits.

Data brokers such as U.S.-based Acxiom or Oracle Canada combine this information with publicly available 'offline' information such as marriage certificates, property deeds, driving records, and court cases to create individual profiles. They then sell these profiles to anyone willing to pay – marketing firms, private companies, political organizations, militaries, even criminals.

The collecting and brokering of private information infringe on the individual's right to informed consent in any use of personal data. But even when consent is required, as in the European Union (EU), if cookies are accepted, then an individual cannot know if their information is being sold or how it is being used. And it has become almost impossible for an individual to opt out without withdrawing altogether from the online world and the range of services and access it offers.

> Public outrage flares up when the Edward Snowdens of the world reveal the amount of snooping that is occurring, but quickly dies down again. Perhaps corporate-led surveillance today is so pervasive that it has crossed into the realm of the familiar and accepted.

The dealings of these brokers can be as dangerous as government mass surveillance to vulnerable communities, partly because they make use of everyday, seemingly innocuous operations, like posting on Facebook or online shopping. And, even though the brokers capture information on almost everyone, targeted communities suffer the most. Already disenfranchised, these groups feel even less free and more threatened.

Individuals can also be targets and victims of data brokers and their customers. Healthcare companies and insurers use purchased data on an individual to project future claims and secure higher premiums from that individual in advance. Such a process can affect anyone and everyone, because the space is basically unregulated.

A regulatory grey area

Existing regulations are inadequate. For instance, Canada's data privacy law allows the commercialization of 'anonymized' data. However, this data is usually easy to attribute to an individual once a profile has been created with offline data.

Canada's Personal Information and Electronics Document Act does attempt, nevertheless, to safeguard the privacy of Canadians by covering a wide variety of collection and usage methods. And the EU's General Data Protection Regulation provides a standard level of protection for citizens of all member states.

However, regulating data brokers is complicated by the disaggregated nature of Internet infrastructure and the lack of stringent U.S. laws on Internet governance. Data from any source can be routed through the servers of a different country and be subject to that country's privacy laws – or the lack of such laws. The chances are very good that a message sent to a neighbour in Canada, for example, will be routed through U.S. servers. While on this journey, the data becomes available for the taking.

The future of a surveillance society

Public outrage flares up when the Edward Snowdens of the world reveal the amount of snooping that is occurring, but quickly dies down again. Perhaps corporate-led surveillance today is so pervasive that it has crossed into the realm of the familiar and accepted. We live with it because we don't want to give up the benefits of the online world and see no way to have one without the other.

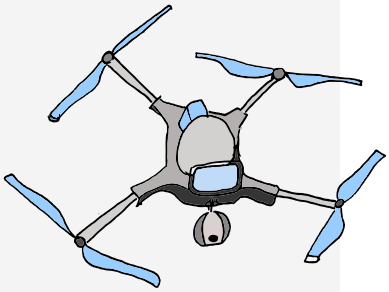
We should not assume defeat so readily. There are steps that we can take to regain our privacy.

The first is to become uncomfortable with the amount of access others have to our lives. The second is to start pushing for more global governance of the data brokerage industry so that companies are held accountable.

While we are not all equally exposed to the risks of surveillance, we are all watched all the same. We are being watched, tracked, and even recorded by multiple unknown actors who then pass on information to other unknowns who use that data in unknown ways. It is past time that we pushed back against the intrusion of strangers into the sanctity of our private lives. □

Mehnaz Hossain was a 2022 Ploughshares Peace Research Intern

Branka on AI-based weapons



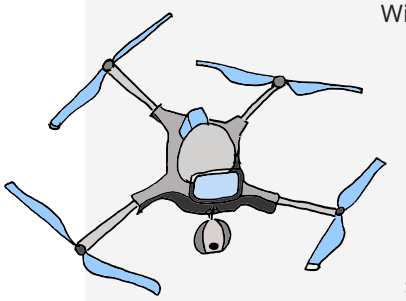
On June 14, Ploughshares Senior Researcher Dr. Branka Marijan joined University of Guelph philosophy professor Dr. Joshua Skorburg for a Fireside Chat put on by U of G's CARE-AI (Centre for Advancing Responsible and Ethical Artificial Intelligence). The topic: "The future is now: Talking about the challenging need to regulate AI-based weapons."

Branka explained how various weapon systems are employing AI to become autonomous or at least semi-autonomous. Unfortunately, civil society generally doesn't know if these systems are already autonomous or still under significant human control. Branka's greatest concern was over the employment of AI in kill chains, which select and engage human targets.

Canada's current position is unclear but seems to have moved closer to the position of the United States, which opposes a ban. Most states would claim to abide by international humanitarian law (IHL), but Branka indicated that autonomous weapons are not covered by IHL and must have their own set of regulations. However, many states do not support this view.

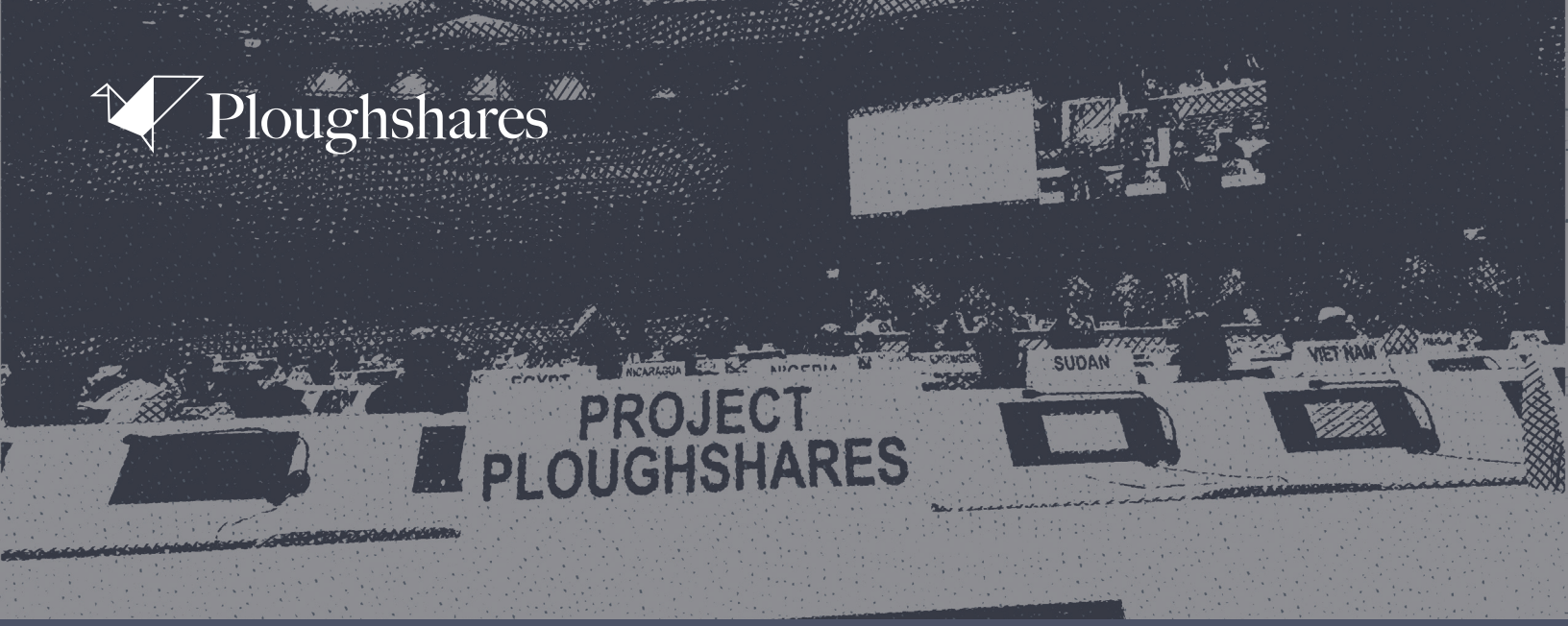
The war in Ukraine might show how new tech works in practice. So far, however, emerging tech has not been showcased. Certainly, more sophisticated small drones are being used. Branka feared that untested experimental systems could be employed, which could fail in unexpected and even catastrophic ways.

Civil society's position on autonomous weapons has crystalized; it wants to ban weapons that can select and engage targets, particularly military personnel and civilians, with no human control. This position holds despite claims that these weapons are more precise and decrease the need for "boots on the ground," thus sparing soldiers from injury and death. However, as Branka pointed out, in reality, militaries often pick civilian targets. Even when they don't, autonomous systems are unpredictable and not always able to respond appropriately to a rapidly changing hostile environment. Anyway, weapons don't need to be autonomous to be more precise.



Without question, it is challenging to control and regulate this emerging tech. But most interested parties agree that keeping autonomous systems out of the hands of nonstate armed groups is important. One factor in doing this is to ensure that the community of AI developers is more attuned to the multiuse nature of the applications they create. Communication between developers and policymakers is critifcal.

Currently, it appears that no one could be held legally responsible for the results of a catastrophic use of autonomous weapons. But it is important to come to some international agreement on responsibility. Future warfare will involve more autonomous weapons and the world is not prepared.



Our new website is launching soon

Check it out at www.ploughshares.ca