


# THE PLOUGHSHARES MONITOR

VOLUME 43 | ISSUE 4

WINTER 2022

## THE HEART OF DOUG ROCHE CREATIVE DISSENT



The Hon. Douglas Roche, O.C.  
sits down for a conversation  
with Cesar Jaramillo

### ALSO IN THIS ISSUE

#### READY FOR LIFT-OFF?

A commitment to  
restrain anti-satellite  
weapons testing

#### BOMBARDIER

The Montreal aerospace  
manufacturer refocuses  
on military-related exports

#### POLICY CONFERENCE

“Restoring a strained  
global security  
architecture”

*"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*

## WINTER 2022

3

### From the Director's desk

Q&A with the Hon. Douglas Roche, O.C.

by Cesar Jaramillo

12

### Policy Conference

Ploughshares researchers participate in "Restoring a strained global security architecture"

by Wendy Stocker

16

### Bombardier refocuses on military-related exports

An examination of the Montreal aerospace manufacturer

by Kelsey Gallagher

20

### Ready for lift-off?

A commitment to restrain anti-satellite weapons testing

by Jessica West

#### Editor's note:

"Canada's arms trade and violence against women" in the Autumn 2022 issue of *The Ploughshares Monitor* contains this sentence: "It is notable that there is no public record that Canadian officials have ever denied the authorization of arms exports to protect against GBV" (p. 9). Global Affairs Canada contacted us, stating that the Canadian government has denied export permits since Canada's accession to the Arms Trade Treaty because of the risk that such transfers could be used to commit or facilitate serious acts of gender-based violence.

The Ploughshares Monitor  
Volume 43 | Issue 4

#### PROJECT PLOUGHSHARES STAFF

**Cesar Jaramillo** Executive Director

**Julia Bandura**  
**Kelsey Gallagher**  
**Tasneem Jamal**  
**Branka Marijan**

**Matthew Pupic**  
**Wendy Stocker**  
**Barbara Wagner**  
**Jessica West**



*The Ploughshares Monitor* is the quarterly journal of Project Ploughshares, the peace research institute of The Canadian Council of Churches. Ploughshares works with churches, nongovernmental organizations, and governments, in Canada and abroad, to advance policies and actions that prevent war and armed violence and build peace. Project Ploughshares is affiliated with the Kindred Credit Union Centre for Peace Advancement, Conrad Grebel University College, University of Waterloo.

Office address:  
Project Ploughshares  
140 Westmount Road North  
Waterloo, Ontario N2L 3G6 Canada  
519-888-6541, 1-888-907-3223  
plough@ploughshares.ca; www.ploughshares.ca

Project Ploughshares gratefully acknowledges the ongoing financial support of the many individuals, national churches and church agencies, local congregations, religious orders, and organizations across Canada that ensure that the work of Project Ploughshares continues.



We are particularly grateful to The Simons Foundation Canada in Vancouver for its generous support.

All donors of \$50 or more receive a complimentary subscription to *The Ploughshares Monitor*. Annual subscription rates for libraries and institutions are: \$35 in Canada, \$45 (U.S.) in the United States, \$50 (U.S.) internationally. Single copies are \$5 plus shipping.

Unless indicated otherwise, material may be reproduced freely, provided the author and source are indicated and one copy is sent to Project Ploughshares. Return postage is guaranteed.

Publications Mail Registration No. 40065122.  
ISSN 1499-321X.

*The Ploughshares Monitor* is indexed in the Canadian Periodical Index.



Printed at INNOVATIVE, Waterloo, Ontario.  
Printed with vegetable inks on paper with recycled content.

Funded by the  
Government  
of Canada

**Canada**

## From the Director's Desk

# The heart of Doug Roche: Creative dissent



Cesar Jaramillo interviews the Hon. Douglas Roche, O.C.

Edited by Wendy Stocker

*The Hon. Douglas Roche, O.C., is a Canadian author, parliamentarian, and diplomat. He has served Canada as Senator, Member of Parliament, and Ambassador for Disarmament. He is an Officer of the Order of Canada and the recipient of major awards for his work for peace and nonviolence, including the Mahatma Gandhi Foundation for World Peace Award (Canada), the United Nations Association's Medal of Honour, and the Sean MacBride Peace Prize.*

**Cesar Jaramillo:** Who is Doug Roche? How would you characterize him?

**Douglas Roche:** Cesar, if you're trying to find Doug Roche, I think two words would apply – the two words I used in my memoirs, which I published when I was 80. Now I'm 93, I still hold to the two words: creative dissent.

I have dissented virtually all my public life. This year happens to be the 50<sup>th</sup> anniversary of my first election to Parliament in 1972. I've been in public life for 50 years as a Member of Parliament, an Ambassador, and a Senator. It's a rare privilege for a single Canadian to have occupied those three high positions in our society. In all positions, I have dissented.

I've dissented from the perpetuation of the arms race. I've dissented from the militarization of our society and our culture. I've dissented

from the gross disparities of humanity, in which billionaires, who are multiplying at a rapid rate, syphon off –dare I use the word “steal” – from the poor. I've dissented from despoilation of the planet. I've dissented from the hypocrisy of politicians that puts policies for their own good ahead of policies for the public good.

But dissent by itself is negative and corroding, leading to paralysis. Therefore, I have conjoined to my dissent creativity, working in various ways to build up organizations, add some strength to change policies. In the early 1980s, I was a founding President of Parliamentarians for Global Action, which tried to influence public policies for disarmament and development. We believed in what Swedish diplomat Inga Thorsson defined as the dynamic triangular relationship between disarmament, development, and security, in which, the more you do disarmament and transfer that

money over to development, the more security you get. We pushed that very hard, in creative ways: seminars and meetings, delegations to governments.

I also started the Middle Powers Initiative to help middle powers recognize that they could influence the major powers, particularly on nuclear disarmament. I had a good model, because in 1983, Pierre Trudeau, the prime minister of a middle power, went to the capitals of the five permanent members of the United Nations (UN) Security Council (P5) to get them to slow down the nuclear arms race.

In later years, I've tried to express my dissent in various civil society efforts. I dissent from policies today that feed more arms into Ukraine and dismiss negotiations. Creative dissent has marked my life.

**CJ:** I want to go back to creative dissent and ask you a very basic question: why? What is it in Doug Roche that has led to all the roles that you have held? Is it a personality trait? Growing up, were you a counter-power, a rebel? Are you personally offended by the many injustices that we see every day, by the nuclear threat, by the inability of policymakers to make better decisions? Are you motivated by a sense of hope that your work will yield benefits, however incremental they might be?

**DR:** You've touched on several things that would certainly apply to me.

In the late 1950s and early 1960s, I was a journalist. I worked for a religious magazine that sent me to Africa and Asia and Latin America. I interviewed a Communist labour leader in Venezuela, an Ibo teacher in Nigeria before the Biafra war, a farmer in Kerala in India. I saw a lot of humanity.

One day I woke up to a great discovery: most of the world is non-white, non-Western, and non-Christian. In other words, I'm a real minority in the world as a white, Western Christian. I learned then that we've got to get along with one another.

I was motivated strongly by economic disparities. When I first became an MP, I focused on development. In 1976, I was one of the first Westerners to travel around China. I also went to Indonesia and Bangladesh. Then I wrote a book

about development models in those countries.

In Bangladesh, a Catholic sister took me around the rural areas. In a village, she took me to a home, a hut, with a woman and her six kids; her husband was out in the farm. They had hardly anything. When the interview was over, I left and headed back to the car. I looked back and this woman was running after me. She had in her hand a glass of warm palm date juice. While we were talking in her dwelling, she had been heating this to give to me, a strange white Western man whom she'd never see again. This woman who had nothing wanted to give Doug Roche something. I was overwhelmed and this became a turning point in my life.

I got into nuclear disarmament in the 1980s. I'd gone to Hiroshima by that time, and I saw what human beings can do to others. I interviewed the hibakusha. I saw all the museums. That, too, was a turning point in my life.

**CJ:** I've been to Hiroshima myself and it is transformational. But to wrap up who is Doug Roche: your faith. Does being a Roman Catholic give you strength, a sense of purpose; does it sustain you in some way?

**DR:** The answer to that is yes. I went to the Second Vatican Council as a journalist 60 years ago. I wrote a couple of books about the Second Vatican Council. I was immersed in it. The essence of the Second Vatican Council was that the Church is not just this institution on a hill; the Church is the people of God.

I was taken by that, but also by the social teaching of the Church, by Pope John XXIII, who wrote *Pacem in Terris* (Peace on Earth). You can't get a better political philosophy than what is found in there, that we need strong institutions to guarantee peace and security.

Pope Francis has this great document, *Laudato Si'* (Praise Be to You), which was addressed to the world, not just Catholics. And he's followed that up with subsequent documents. I would have to say that my faith has influenced me as I work in the secular arena.

**CJ:** In today's world, do you think that faith groups have a role to play in policy conversations and in crafting solutions?

**DR:** Yes, I do. Ecumenism has come a long way and interfaith work has come a long way. The Conferences on Religion and Peace, with which I've been involved for a number of years – now the Parliament of the World's Religions – have made a great contribution in bringing out the best side of religion, which is interactive, respectful, and reconciliatory. However, it's not strong enough to determine government policies.

**CJ:** Can you comment on the state of global affairs today? The crisis created by the invasion of Russia into Ukraine has people nervous, stressed, unnerved. Are those sentiments warranted?

**DR:** Yes. I was 16 when the bombing of Hiroshima and Nagasaki took place and World War II concluded. Then the United Nations started and that was a turning point for humanity. The outflow of the United Nations to many agencies, and the adoption of the UN Charter and the international rule of law provided a framework on which I built my life. And now that framework is being challenged and undermined. So, I regard the crisis that we're going through now as the gravest crisis in my active lifetime.

Someone suggested to me that the period of the United Nations was an aberration and now we're getting back to normal confrontation. I vigorously dissent. I believe that humanity, over the past 1,000 years – particularly the past 100 years – is ascending in its knowledge of itself and the planet, and that we have become more creative and built law. Thus, I would argue that the current attack on multilateralism is the aberration, and that we need to return to confidence in the United Nations.

**CJ:** You express a great deal of faith in the United Nations as an institution and in the figure of the Secretary-General as a voice of reason and mod-

eration. Might the solution to this current crisis lie there?

**DR:** I just wrote a piece that compares the Cuban missile crisis with the Ukraine war crisis. The Cuban missile crisis was solved by negotiations between U.S. President Kennedy and Soviet President Khrushchev, spurred on by UN Secretary-General U Thant, who engaged in back-channel diplomacy. And he never got proper credit, as I pointed out in this piece.

The United Nations today is being bypassed, which I oppose. If we give up on the UN Charter and the Security Council as legal guardians of peace and security in the world, then we're just going to float. We may luck out, we may not. We need an institutional framework that is guided by dynamic people. Today that framework is being undermined and dynamic leaders are scarce.

On several occasions, the UN Security Council has headed off war or successfully dealt with smaller wars. When the direct interests of the P5 that have the veto are at stake, then paralysis sets in. It's easy enough to say we should get rid of the veto, but these states would never have come into the United Nations had they not received the veto. Even though the veto has been exercised more often than it should have been, it has not eviscerated the strength and the need for the Security Council.

Now the UN General Assembly has adopted a resolution that requires any state in the Security Council that casts a veto to come before the General Assembly to explain itself. That is a step forward.

I'm not certain what will come out of the Ukraine crisis. But perhaps some years down the line, the evaluation of the Ukraine war might lead to the implementation of a reform of the Security Council. I don't want to give up on this.



One day I woke up to a great discovery: most of the world is non-white, non-Western, and non-Christian. In other words, I'm a real minority in the world as a white, Western Christian. I learned then that we've got to get along with one another.





Doug Roche participates in an interview in 2018 with Grandin media in this screenshot.

I just noticed that President Obrador of Mexico, in calling for an international commission to conduct negotiations for the end of the Ukraine war, included in his international team the UN Secretary-General, as well as Pope Francis and Prime Minister Narendra Modi of India.

**CJ:** Many observers are commenting that the risk of nuclear weapons use in the war in Ukraine is intolerably high, even civilization-altering. Does this dimension of the Ukraine conflict keep you up at night?

**DR:** Sleep is not easy. I consider the possible use of nuclear weapons by Russia in Ukraine to be a greater crisis for humanity than the Cuban missile crisis, as great as that was. In the Cuban missile crisis, there was a framework that was adhered to – a recognition that there needed to be contact. Both sides accepted UN Secretary-General U Thant as intermediary.

Today, the multilateral system has been weakened because not enough good leaders put money and energy into it. The West is not free of guilt in causing the conditions of acrimony and militarization that have led to wars. But let me be clear: I

am not offering a defence of Russian policy.

Down through the ages, philosophers and theologians have told us that we must love one another. Now we are faced with a pragmatic choice: we get along with each other or we all die. We've got to find a way, and to find that way, we've got to sublimate ourselves and translate that sublimation into practical politics.

China is also emerging as a strong force after a century of being silent. The West needs to cooperate with China for our mutual survival, particularly in climate policies. We all need to have mutual survival as an operative goal, which we implement with respectful policies.

If that sounds like too high a reach, let me translate it into a UN emergency peace force that is capable of being deployed to stamp out crises as they develop. Or let's have an annual meeting of the Security Council at the summit level. In 1992, the Security Council summit resulted in Boutros Boutros-Ghali's *An Agenda for Peace*. I'm making a plea for respect that leads to realistic political policies that can reconcile the needs of people while protecting the planet.

**CJ:** Consider Canada – the country, the govern-

ment. Is Canada pulling its weight? In these dangerous times, could Canada be doing more?

**DR:** If you look at a map of the world, you see a great huge section of it called Canada and huge sections called Russia and China. Canada is the second-largest land space in the world. It's true that we're only one-half of one per cent of the population of the world – 38 million of 8 billion people. So we should have no delusions of grandeur, but we should accept some responsibility.

In my view, we are not living up to that responsibility. We have so much: our freedom, liberty, our ability to use opportunities. God has blessed Canada enormously.

I do not wish to create the impression that Canada would solve the crises of the world if it opened its doors and took in millions of immigrants and refugees. We'd be in chaos. But we need to do much more to solve the problems of the world so that not as many people are destitute and forced to find a new place to live because of poverty, the climate crisis, wars. Canada should have the United Nations as the centre of its foreign policy. The UN came into existence to resolve such problems and it should play a much stronger role.

For a long time, Canada's foreign policy was based on the United States and the United Nations. The UN was considered the vehicle by which we reached out to the world. We sent our best people there. Today, we're not doing that. Canada has now succumbed to the lure of being a member of the G7 and G20, which are discriminatory clubs. We are now under the sway of the North Atlantic Treaty Organization (NATO), a military alliance.

Yet the enlargement of NATO has itself been a strong factor in causing the conditions that have led to the present war. While I condemn Putin's aggressive invasion of Ukraine, I must acknowledge that enlarging NATO to the degree that it encircled Russia and kept on encircling it has increased the paranoia of Russia. In 1992, I went to a conference at the Carter Center in the United States on the question of the enlargement of NATO. There I argued that NATO should not expand; however, if it did expand, it should take in Russia. I wouldn't say that I was laughed out of the room, but my proposal was not adopted.

**CJ:** I share your view on the expansion of NATO. However, nuance is lacking in many analyses today. Solidarity with Ukraine has left people with black-and-white visions of the conflict, even though there are many factors at play. Is there a way out of this mess, including a defusing of the nuclear possibility?

**DR:** I think an international commission, very high level, in which the United Nations plays a significant role. I would like to look to the Security Council, but as the Security Council is blocked by the instigator of the war, we've got to go around it. Also, we should not underestimate the influence of China. China wants this war to end.

All wars end, usually in negotiations. It's better for a war to end sooner than later. The number of people being killed is horrendous and the suffering extends into the developing world. I don't like the NATO focus on beating Russia. There can be no real winner.

We've got to avoid World War III. It's true that the use of nuclear weapons will lead to World War III. But we can get to World War III without nuclear weapons, as more and more countries pile in behind NATO and NATO takes a more aggressive position. The situation could evolve into a war between NATO and Russia. That will be World War III, with its heightened risk of nuclear weapons.

**CJ:** It sounds like a slow-motion train wreck. I share your fear. I sometimes get the impression that the international community will draw all the wrong conclusions from this crisis. Rather than doing everything to avoid conflict, both sides will redouble on arming and just increase the risk.

**DR:** Pragmatically speaking, I think that the Biden group and the Putin group recognize that such a war is not in their interests. As for Putin's launching nuclear weapons, as you well know, it's not a simple matter of pushing a button. He's got to go through procedures and chains of command. I count on those guys stopping him.

**CJ:** If there can be a silver lining to this crisis, it's that it brings to the fore the insanity of these nuclear deterrence-based policies by verbalizing

them. We knew that Russia would consider a first nuclear-weapon strike before Putin said it. We knew that the West reserved the right to retaliate. Maybe humanity is now being confronted with the ugliness of nuclear deterrence.

**DR:** The Treaty on the Prohibition of Nuclear Weapons (TPNW) is right when it outlaws the possession of nuclear weapons, not only the use. Possession of such weapons is an immoral act and, consequently, nuclear deterrence is an immoral doctrine.

**CJ:** I want to bring NATO and Canada together with a question on Canada's stand on nuclear disarmament. You've said that NATO is a strong influence on Canada. My impression is that Canadian foreign policy is most closely aligned with some U.S. policies and those of its nuclear-armed allies, while the rest of the international community is demanding more concrete progress toward nuclear abolition. Many of those in the rest of the international community have rallied around the recent TPNW; Canada has not. Are you frustrated with Canada's position?

**DR:** I'm tied up in knots.

People like me are called idealists, but I maintain that I'm a realist. I'm a realist for peace. Idealists think that they can keep the present unfair, unjust, and militaristic system going without a great calamity. Realists believe that there are practical approaches to solving the world's problems, including climate change (the Paris agreement), the abolition of nuclear weapons (the Non-Proliferation Treaty on Nuclear Weapons [NPT]), and economic and social disparities (the Sustainable Development Goals). We need to put all our political energy and capital and money into solving these and other problems. But we don't.

Canada's track record in international development is abysmal. It has almost no involvement in peacekeeping. It has so far rejected the TPNW. Still, its position has evolved. Canada has moved from rejecting the treaty to declaring that it understands the reasons for the treaty. Canada would have supported the final document of the recent Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, had it

been successful. It at least acknowledged the existence of the TPNW.

But if you consider that the P5 of the Security Council, the ones charged with peace and security, are the ones who have nuclear weapons, won't give them up, and reject a treaty that wants to prohibit them, then you can judge where we are.

**CJ:** Could Canada challenge that reality or would it be too costly?

**DR:** Yes, Canada should challenge this present cartel on nuclear weapons. I maintain that it would not be costly. When Pierre Trudeau went around the world in 1983, challenging the P5 to slow down the nuclear arms race, he didn't have to pay a price. As a matter of fact, he was praised by the international community. When Prime Minister Jean Chrétien said no to Canada's joining the Americans' war on Iraq, there were no repercussions, no economic penalties. The same was true when Prime Minister Brian Mulroney informed the United States that Canada would not join SDI (Strategic Defense Initiative or Star Wars).

It's a myth that Canada can't say boo to the United States without endangering our economic and political relations.

**CJ:** So what's the hurdle? There have been overtures to the Canadian government from civil society and progressive governments to do more, to move more quickly, to challenge nuclear weapons possession, to embrace the TPNW. But Canada is just not there.

**DR:** First, the lack of vision at the highest political levels inhibits expression of vision at the lower levels. Second, the bureaucracy in the Canadian government is structured to work for promotion by not rocking the boat. Such a structure encourages compliance, not innovation.

**CJ:** Canada's position on nuclear disarmament has not changed substantially in the last several years, even with the change from a Conservative to a Liberal government. Are there any realistic prospects of changing gears, perhaps initiating a debate within NATO, as the House of Commons Standing Committee on National Defence has recommended?



**DR:** Canada wouldn't even attend the TPNW's Meeting of States Parties as an observer. We're influenced by the United States, which is controlled by the military industrial complex. After President Barack Obama got the Nobel Peace Prize for giving a speech in Prague on a nuclear-weapons-free world, he went back to Washington, where the military industrial complex people tightened their chains on him. They locked him down. (My imagery, for literary purposes usually, allows a little exaggeration, but it's not far from the truth.)

My book on Biden's ascendancy included quotes from people who said that Biden will not challenge the military industrial complex, which is driving U.S. policy. And that's what's dominating us. And we can't get out from under because we don't have any leaders who will stand up to it.

**CJ:** What about small to medium-sized states, like Mexico, Costa Rica, Austria, New Zealand, Ireland, which have embraced the relatively recent humanitarian disarmament movement, and led processes on the TPNW and the arms trade and protection of civilians. Do you find hope in these new players?

**DR:** Several years ago, the New Agenda Coalition came into existence, led by Ireland and Sweden. This group was meant to gather important middle power states together to advance an agenda that would take nuclear disarmament forward in concrete ways and certainly stood for the abolition of nuclear weapons. It made a significant contribution to the 2010 NPT Review Conference, which was the last successful review conference.

But what happened to the people who led these efforts? Ireland is a very strong player, but the

official who really invented the New Agenda Coalition and worked most diligently at it was suddenly transferred to a diplomatic post in France. The Mexican official who stood up to the big powers found himself transferred to Spain. I happen to know that the United States government put pressure on the governments of these two countries to transfer their leading spokespersons out of the field of nuclear disarmament.

Diplomat Alexander Kmentt has the good fortune of working for the Austrian government, which is not subject to this kind of U.S. pressure. So, we're not without leaders. But most diplomats working in the disarmament field will not rock the boat. They concentrate on such processes as the Non-Proliferation and Disarmament Initiative and the Stockholm Initiative. But these initiatives are based on the inevitability of the maintenance of nuclear weapons and seek to mitigate the damage.

**CJ:** Let's turn our talk to you as a person. You're 93 years old. Reflect on your age. Are you anxious about time, about the prospects for nuclear disarmament? Are you at peace with the notion of passing the torch to a new generation?

**DR:** Thank you, Cesar. I appreciate the way you put the

question.

I'm a mix. I'm full of anxiety. I also have peace in my heart. I'm 93; I've had a good life. I'm not afraid of dying; I'm afraid of living too long. And I feel that I've tried to make a contribution. But I regard myself as one grain of sand on a very large beach. So, I don't have any delusions of grandeur. I am only one person. I'll die and people will give me a couple of paragraphs and say he wasn't that bad a guy and life will go on.



Future U.S. President Joe Biden and Doug Roche in December 2001 at the Friends Conference Centre in Philadelphia. *Courtesy of Jonathan Granoff*

How am I at peace? It's hard to describe. I'm surrounded by chaos in the world. Is it God who's guiding me? Is God keeping me alive to write the piece that I just wrote on negotiations in the Ukraine war? Is God keeping me here for a purpose? I feel very blessed that, at 93, I have my physical and my mental health. I'm fortunate.

To the extent that I can, I help people grasp the concepts of love and peace and how we live them and extend them while we're surrounded by and dealing with chaos. This brings me back to my faith. Faith is, by definition, a mystery. I can't pretend to explain it all to myself or to you. I know what I'm experiencing and I hope the people I interact with – the people that read this – will know that life is not hopeless.

Humans have more resources and more ability and more knowledge than we ever had before. We have serious problems, but still there is hope. But you have to do something to extend yourself in order to feel it. You can't just sit down in your chair in your living room and say, now I'm going to be happy and have hope. You've got to get out there and do something. A residual effect of exerting yourself beyond yourself gives you more love, peace, and hope.

**CJ:** Have you found happiness in your life?

**DR:** In my personal life, definitely. I like good movies and I like good music and I like to entertain my friends. If you lived in Edmonton, you'd be on the guest list for my annual Christmas party, which was interrupted by COVID. My Christmas parties are legendary.

**CJ:** I was a guest twice at your birthday celebrations in New York. At one, you were going to give remarks and said that your speech was going to be essentially one word. And the word you said was love. Even in this interview, you've explicitly referenced love. Why is that essential, even for something as technical as arms control and disarmament?

**DR:** Jesus said to love one another and love your neighbour as yourself. And the neighbour is the

woman in Bangladesh, not just my neighbour across the hall. I just find it a healthier way to live. You can't go around being mad at everybody and torn with anxiety. Love is such a powerful, driving force. Of course, to love expansively and to love your enemies is very hard. To pray for Mr. Putin is hard.

**CJ:** And when will Doug Roche stop? Do you ever say, I've done more than enough, I deserve a break?

**DR:** No, never. I stop to rest when I'm tired and hungry, not because I've finished my work. Until I can't, I keep going. I'm happier about myself when I'm working. If you have your health, there's quite a bit that you can do.

**CJ:** Can you offer some final thoughts about hope?

**DR:** The title of my memoir, *Creative Dissent*, itself reflects hope. Hope relates to the advancement of humanity. We're on a path toward God. John F. Kennedy used to say, here on Earth, our job is to complete God's creation. Just the execution of that generates hope. There are lots of avenues that are open to us, whether we're interested in the environment, in human rights, in disarmament, in economic and social development. Millions upon millions of people are working in those avenues. The cumulative effect of that is to lift up the standards of humanity. That's all we can do. I'm a grain of sand, but I'm still here. That's the hope.

**CJ:** We're all grateful. Thank you so much.

**DR:** I pay my respects to the readers and members and supporters of Project Ploughshares. I'm a supporter myself, reflecting my hope in your work and my deep respect for you and your predecessors, not least, Ernie Regehr and Murray Thomson for having the vision to start Project Ploughshares. I encourage the churches that provide basic support to maintain that support, because you are having an effect on the people who think. □

*Cesar Jaramillo is the Executive Director of Project Ploughshares. He can be reached at [cjaramillo@ploughshares.ca](mailto:cjaramillo@ploughshares.ca).*

## Round 2 of “Canada and the abolition of nuclear weapons”

By Wendy Stocker



On September 15, Project Ploughshares held the second of three workshops on Canada, the growing nuclear threat, and the Treaty on the Prohibition of Nuclear Weapons (TPNW). The focus was on the First Meeting of States Parties to the TPNW, which was held in June. As this workshop took place after the month-long Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT RevCon) in August, this workshop also touched on that conference\* and how the NPT relates to the TPNW.

The two presenters were Project Ploughshares Executive Director Cesar Jaramillo and Ray Acheson, who represents the Women’s International League for Peace and Freedom on the steering committee of the International Campaign to Abolish Nuclear Weapons (ICAN). Ploughshares also belongs to ICAN. Both presenters were active in supporting the development of the TPNW and now monitor progress since it entered into force. Both attended the TPNW First Meeting of States Parties in June.

The final workshop will be covered in the next issue of the *Monitor*. The series of workshops was produced with the financial support of Shantz Mennonite church in Baden, Ontario.

Cesar established the context for the First Meeting of States Parties to the Treaty on the Prohibition of Nuclear Weapons by outlining key relevant events of 2022: the January setting of the Doomsday Clock of the *Bulletin of the Atomic Scientists* at 100 seconds to midnight, the most deadly setting in 75 years; the war in Ukraine that began with the Russian invasion in February; the Vienna Conference on the Humanitarian Impact of Nuclear Weapons (HINW) and the 2022 Madrid NATO summit, both in June; and the NPT RevCon in August.

Ray described the TPNW conference. There was a serious emphasis on diverse participation, with statements by countries affected by nuclear testing and those from the global south. But holding the meeting in the global north made attendance more difficult for representatives of the global south. Ray noted that most academics were from the global north.

Several observer states, including NATO members Germany, the Netherlands, and Norway, were present. Ray found the German contribution surprisingly constructive, even while Germany upheld NATO’s policy on nuclear deterrence.



The conference was successful in adopting a declaration and an action plan. The declaration denounced nuclear weapons, which heighten tensions, and condemned nuclear threats. A 10-year deadline for the destruction of nuclear weapons was established, with one extension possible. One action that was considered was establishing a trust fund for states affected by nuclear explosions.

Ray pointed out some weaknesses in the TPNW: It doesn’t address the processes that lead to nuclear weapons, like the mining of uranium; and it doesn’t account for the significance of gender or other types of diversity. Nevertheless, more countries are planning to join.

Canada attended the HINW conference but not the TPNW meeting. Ray called on Canada to stop supporting NATO policy, which seeks to undermine the TPNW; to stop financing companies that participate in the production of nuclear weapons; and to join the TPNW. Polls suggest that most Canadians want Canada to join this treaty.

The question period revealed that NATO’s view of itself has apparently changed over time. Only since 2010 has it called itself a nuclear alliance. Nor is NATO a monolithic block. The parliaments of several countries, including Canada, are making anti-nuclear noises. So are certain city governments; the city council in Ottawa supported Ban the Bomb Ottawa. In 2018, a Canadian parliamentary committee on national defence recommended that Canada take a leadership role in NATO to achieve a world without nuclear weapons. Canadian civil society also supports this position.

\*For detailed analysis of the NPT RevCon by Cesar, see *Death by a Thousand Red Lines: The Colossal Failure of the 10<sup>th</sup> NPT Review Conference* on the Project Ploughshares website.



# Policy Conference: Restoring a Strained Global Security Architecture

Written by Wendy Stocker



Cesar Jaramillo

In late October, the Canadian Pugwash Group and the Balsillie School of International Affairs co-sponsored the *Restoring a Strained Global Security Architecture Policy Conference* to consider “current pressing challenges to international security as well as a role for Canada and Canadian foreign policy.” Presenters included Ploughshares Executive Director **Cesar Jaramillo** and Senior Researchers **Branka Marijan** and **Jessica West**.

**Cesar** made a compelling case for a nuanced, multilateral approach to global security, because a “multipolar world is emerging.”

The war in Ukraine has raised the real possibility of a nuclear conflict. But, as Cesar has said repeatedly, the world has lived with the real possibility of nuclear war for as long as competing stockpiles of weapons have existed. All countries that possess nuclear weapons are prepared to use them under certain conditions. This is the nuclear deterrence doctrine. If there is a silver lining to the Ukraine conflict, it is that it shows this doctrine for what it is, a real threat. If it were a bluff, nuclear weapons “could be made of papier-mâché or cardboard.”

Cesar highlighted two casualties of war: truth and nuance. Both are needed to “construct practical solutions” that will contribute to “cool-headed analysis,” which will in turn allow NATO and other Western countries to acknowledge legitimate Russian security interests, even while condemning the Russian invasion of Ukraine.

**Jessica** argued convincingly for outer-space arms control, particularly given the limited utility of kinetic space weapons. It is hard for space weapons to hit assigned space targets or limit their effects, with everything in rapid motion. The debris effects of kinetic space weapons are dangerous to everyone, including actors who own them, because “we are all in the same bathtub.”

Arms control in space is not easy to achieve. Some problems are logistical; space is so far away and how can we know when tech is operating outside the rules or if restrictions are being enforced? Some are definitional; what constitutes a weapon, especially when so much space tech is multipurpose?

Jessica believes that the biggest obstacle to arms control is the lack of political will. To make progress, she advised better communications and diplomatic mechanisms. She also welcomed the moratorium on certain anti-satellite tests adopted by the United States, which Canada has joined.

Jessica emphasized the need to involve industry in regulating space because it plays a huge role in space activities.

But the critical thing is to prevent the normalization of bad behaviour.



Jessica West

# Trained Global Security Architecture



As she does so well, **Branka** explained the unique issues posed by artificial intelligence (AI) and cyber weapons. The bottom line is that AI is not a weapon; it is “an enabler, enhancer, and amplifier of existing and upcoming platforms, systems, and threats.” As such, regulating the use of AI is particularly difficult.

It is also important to remember that AI is tech that is still being developed. It has limitations, which provoke unpredictable outcomes when used in weapons. And it is largely developed by civilians, who do not design for the battlefield.

Despite these and other weaknesses, many militaries and non-state actors want autonomous weapons systems that employ AI. They might want to limit harm to ground forces, or it might be felt that humans don’t respond quickly enough in a particular situation.

It is certainly the case that weapons that use AI are already being used in combat and that data is being collected that will improve these weapons over time. For example, both sides in the Ukraine conflict are using loitering munitions and wanting more. Ukraine uses AI to analyze satellite imagery. The audience was also told that the United States military, in a different context, has used AI in its kill-chain sequence.

Because projects to develop AI-enhanced military systems are generally secret, it is not easy to predict how AI will be used or weaponized. Many weapons use commercial components, which are cheap and easily replaced if damaged in combat. In this way, military and civilian development of AI are intricately linked.

As with space weapons, there is little political will to restrict the development of autonomous weapons. Still,



From left, conference participants Branka Marijan, Jessica West, Walter Dorn, and Paul Heidebrecht.



70 states have come together to declare that human control of weapons must be maintained.

A code of conduct is needed. Of course, Branka did not and would not say that all AI military apps are bad. But she was concerned because humans seem convinced that all challenges can be met with more and more tech. But not all problems have technological solutions. Sometimes all we need is good old-fashioned human communication, face to face.



**Scenes from the policy conference**  
(left and below): Cesar Jaramillo with nuclear disarmament activist and hibakusha Setsuko Thurlow; panelists Julie Clark, Dr. Jennifer Simons, and Cesar Jaramillo; (next page) Cesar Jaramillo, Ploughshares founder Ernie Regehr, Jessica West, Kelsey Gallagher, Kenneth Epps, and Branka Marijan.

Photos on this and preceding pages  
by Ploughshares Communications  
Officer Tasneem Jamal.

Photo on next page by Matt Korda.





## What will war look like in the future?

The Centre for International Governance Innovation (CIGI) in Waterloo, Ontario commissioned Ploughshares Senior Researcher Dr. Branka Marijan to write some articles for their website. It is CIGI's policy to send such commissioned pieces to other sites to generate interest.

Branka's latest commissioned piece first appeared on the Techonomy website on September 30 under the title "New and old technologies and future warfare" and then on October 6 on the CIGI website as "Russia's war on Ukraine is a test case for future conflict."

In this article, Branka uses the current conflict in Ukraine to suggest that war in the future might not be as "futuristic" as some predictors have indicated. Neither the Russians nor the Ukrainians are relying on amazing automatons or time-warping devices. Instead, they are strapping bombs on drones. They are adapting commercial tech for military uses. They are using social media like Facebook and TikTok and Instagram. Future wars will likely continue to employ technology that is only incrementally better than what was previously used.

The ability to monitor opposing forces is improving, and this change might lead to further changes in how armed forces are assembled and deployed. But, again, many Western forces are already shifting to smaller, specialized units and a greater dependence on local forces.

What does not seem likely is that war in the future will be less destructive. Civilians will still die; critical infrastructure will be destroyed. And when this happens, there won't be any "technological magic wand" to replace all that has been lost. More than ever, war is to be avoided. For this there is a tool, although it isn't exactly high tech. That tool is diplomacy, and we need it more than ever today to prevent the wars of the future.



# Bombardier: The Montreal aerospace manufacturer refocuses on military-sector exports



Written by Kelsey Gallagher

**T**wenty years ago, Montreal's Bombardier was a powerhouse in the global aerospace market. Today, after a drastic and very public downsizing, the company has focused almost completely on its line of versatile corporate aircraft. This concentration on marketing flexible and multi-purpose aerospace goods places a greater emphasis on military-related exports.

## Company background

After making first snowmobiles and then rolling stock and rail transport, Bombardier expanded into aerospace, the field for which it is best known today. Bombardier initially purchased Canadair in the mid-1980s and then De Havilland Canada in 1992. During this period of booming growth, Bombardier not only saw major commercial success, but made inroads into military aircraft markets.

Bombardier's sales began drying up in the late 2000s. Then the company's exports were subjected to stiff tariffs from the U.S. Department of Commerce in response to a petition from rival Boeing. Although these protectionist measures were eventually overturned, the financial damage was significant. Bombardier eventually divested itself of its commercial airline portfolio, concentrating instead on corporate jets.

## Refocusing

Bombardier has further refined this focus, concentrating on the Challenger and Global lines of aircraft, small business jets that offer comfortable and flexible transportation options for corporate clients. This flexibility also makes them suitable for non-corporate applications.

Every year, Bombardier manufactures aircraft that will then be converted into "special mission aircraft" for military end-use and sold to foreign governments. These aircraft can support missions ranging from surveillance to electronic warfare.

## "Specialized aircraft"

To the more than 500 Bombardier-made special mission aircraft already in government and military service around the world, Bombardier adds from "three to six specialized aircraft" each year. The manufacturing process for such an aircraft typically begins in Canada but is completed by foreign suppliers.

Bombardier's Challenger series is assembled in Quebec, while the Global line is assembled outside of Toronto in Ontario. Aircraft that are going to military end-users are then shipped to other facilities, most outside of Canada, that work to meet military specifications, including fitting the aircraft with advanced intelligence, surveillance, airborne early warning and control (AEW&C), communications, or electronic warfare equipment.



Montreal's Bombardier was once a powerhouse in the global aerospace market. "Bombardier aéronautique" by Jeangagnon is licensed under CC BY-SA 3.0

One such facility is Bombardier Defense, Bombardier's newly rebranded subsidiary in Kansas, which provides special engineering support to modify the aircraft for special mission purposes. For example, it supports the Battlefield Airborne Communications Node system on the Global 6000 for the United States Air Force.

In other instances, Bombardier ships its aircraft overseas. Global 6000 aircraft used in the GlobalEye AEW&C platform are sent to Saab in Sweden, where they are retrofitted with a large "Erieye" radar system along the spine of the airframe. Saab then delivers the aircraft to the customer.

### Unregulated goods

Since 2020, the total market value of deliveries and orders of Bombardier aircraft for military end-users has exceeded half a billion dollars. Because the aircraft are retrofitted for military use after they leave Canadian soil, Canada's export control regime doesn't consider them military goods, even though the end-use is clearly under-

stood by both customer and manufacturer. The result is that they are exempted from Canadian regulations on military exports, including assessments on the potential human rights ramifications of their transfer. They are also not counted in Canada's annual reporting of such exports.

As an example, in 2015, India's external intelligence agency received two heavily modified Global 5000 aircraft that were fitted with reconnaissance and surveillance systems by Israeli supplier Elta Systems in Tel Aviv. Each unmodified, civilian version of this aircraft costs tens of millions of dollars. However, for 2015, Canada reported the total value of exports of military aircraft and associated components to India at only \$4,186. Thus, it appears that the aircraft were transferred as commercial rather than military goods.

Bombardier isn't the only Canadian aerospace company that ships goods for eventual military end-use that are free from arms controls. The lack of regulation of aerospace components is a longstanding weakness of the export control regimes of Canada and other jurisdictions.



## Select examples of Bombardier aircraft sent to military end-users (2010-2022)

YEAR	AIRCRAFT	NO. ORDERED	END-USER
2010	DHC-8-200	7	U.S. Department of Homeland Security
2012	Global 6000	1	U.S. Air Force
2015	Global 5000	2	Indian Aviation Research Centre
2015*	DHC-8-300	1	Colombian National Police
2015	DHC-8-315	6	U.S. Army
2018*	Global 6000	2	Turkish Air Force
2019	Global 6000	2	UAE Air Force
2019*	Global 6000	3	German Air Force
2019	Challenger 650	1	UAE Air Force
2020	Global 6000	2	UAE Air Force
2020	Challenger 605	2	U.S. Army
2020*	Global 6000	3	German Air Force
2021*	Global 6000	1	UAE Air Force
2021*	Global 7500	1	unnamed Middle Eastern Government
2021*	Global 6000	6	U.S. Air Force
2022*	Global 6000	2	Swedish Armed Forces

"Year" for entries without an asterisk indicates the date of delivery. If more than one aircraft were ordered, the year given indicates when the final delivery took place.

"Year" for entries marked with an asterisk (\*) indicates the date of contract announcement, with deliveries ongoing or delivery dates unavailable.

Sources: The Project Ploughshares Canadian Military Industry Database, with additional data from the Stockholm International Peace Research Institute Arms Transfers Database.

### A flagship customer

Since 2012, the United Arab Emirates (UAE) has ordered several Bombardier aircraft through third parties for military end-use. The total market value is in the hundreds of millions of dollars.

According to aerospace publication *Flight Global*, the initial UAE order included two Global 6000 aircraft for use in a "secretive programme ... for an unspecified special-mission role." Marshall Aerospace and Defence Group in the United Kingdom fitted the aircraft with electronic and

signals intelligence hardware and began deliveries to the UAE no earlier than 2018.

In 2015, the UAE became the flagship customer for the Saab-modified GlobalEye platform when it ordered two of the aircraft. It subsequently ordered three more. It also ordered a Challenger 650, which was to be modified by Aquila Aerospace in Abu Dhabi in 2019 for "a variety of missions."

Because of its involvement in the war in Yemen, the UAE's ability to import arms has been



restricted by some governments, which viewed as too high the risk that exports would be used in international humanitarian law violations in that conflict. According to *Insider*, Saab lobbied Swedish officials to exempt from this export freeze the transfer of the modified Bombardier aircraft. In 2019, Swedish officials released the export licences, and the jets were shipped to the UAE.

It is noteworthy that, in 2018, Canadian officials denied the export of unidentified aerospace goods to the UAE for reasons of “foreign and defence policy,” making the UAE the only party to the conflict in Yemen so denied. This action was almost certainly based on the UAE’s conduct in the war, particularly related to airstrikes, which led to a judgement that there was a significant risk that the goods would be used in the violation of human rights. However, because unmodified Bombardier aircraft are not considered military

goods by the Canadian government, their continued export to the UAE has not been placed under any such restrictions.

### Looking to the future

Bombardier’s intense restructuring in recent years has forced it to focus on what it sees as safe markets. Clearly the market for special mission aircraft for military use is viewed in this light. The company is currently producing aircraft for several military customers and has orders for a number of years in advance.

After Russia’s invasion of Ukraine in February 2022, Bombardier’s chief executive officer stated that the company intended to focus even more on the defence market, in response to signals from the world’s militaries of their intentions to boost military expenditures in an increasingly insecure world. □

*Kelsey Gallagher is a Researcher at Project Ploughshares. He can be reached at [kgallagher@ploughshares.ca](mailto:kgallagher@ploughshares.ca).*



## MASTER OF PEACE AND CONFLICT STUDIES

AT THE UNIVERSITY OF WATERLOO

Turbulent times call for people who understand systems of violence and conflict, and who are prepared to build peace with justice. The Master of Peace and Conflict Studies (MPACS) is a vibrant, interdisciplinary academic program that empowers students with knowledge and skills to contribute to nonviolent peacebuilding.

Be a catalyst for peace at community, institutional, and systemic levels. This course-based professional degree program connects theory, analysis, reflection, and practice while focusing on civil society and community-led change.

Be part of a community-centered learning environment while benefiting from the reputation and resources of the University of Waterloo, one of Canada’s premier universities.

**APPLY BY FEB 1 | [UWATERLOO.CA/MPACS](https://uwaterloo.ca/mpacs)**



UNIVERSITY OF  
**WATERLOO**



**Conrad Grebel**  
University College

# Ready for lift-off?

## A commitment to restrain anti-satellite weapons testing

Written by Jessica West

**A**wareness of the damaging effects of anti-satellite (ASAT) missile tests is growing. The most recent test, conducted by Russia in 2021, produced a cloud of space debris that forced astronauts on the International Space Station to take shelter in lifeboats. Today, the remaining debris continues to menace satellites and humans in space.

And now, political action is building. For the first time in decades, a concrete step is being taken to restrict the testing of such weapons, with the initiation of a new moratorium led by the United States.

Of course, this is but one step of the many that are urgently needed to preserve outer space for peaceful uses and dampen the drumbeats of warfighting in space. And political hurdles to widespread adoption remain. Still, after more than four decades of inaction, all such steps are valuable and to be celebrated.

### The need for stronger norms

To date, China, the United States, India, and Russia have conducted destructive tests of ASAT weapons, using their own dead or obsolete satellites as targets. These tests have been normalized and accepted by other states, as long as they don't create "long-lasting" debris – a term open

to wide interpretation.

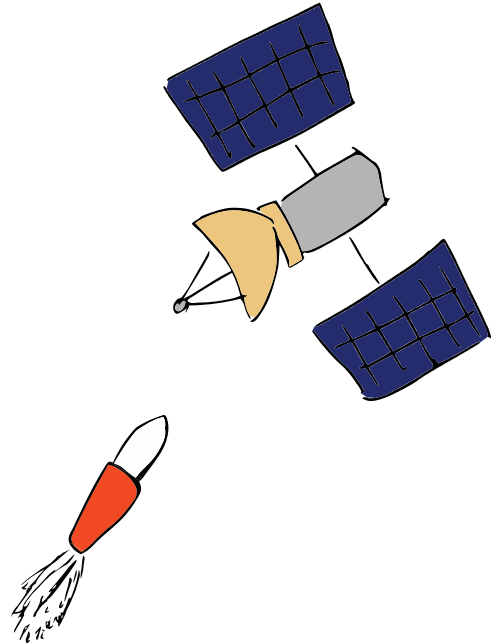
But all debris from an ASAT test causes harm. And all destructive activity in space creates debris. If such tests continue, the resulting debris could become an indiscriminate hazard to astronauts and satellites, negatively impacting our ability to use outer space for generations. These tests also contribute to the political dynamics of arms racing, encouraging other states to join in.

Walking back this norm is not easy but it is necessary.

This past May, the first substantive meeting of the United Nations (UN) Open-Ended Working Group (OEWG) on Reducing Space Threats took place. The OEWG is tasked with developing additional norms of responsible behaviour to mitigate threats to space systems, and considering how such rules might contribute to future negotiation of a legally binding agreement. Space debris is an obvious threat to tackle; not only does it create a persistent and indiscriminate threat, but almost all of the more than 30 national submissions sent to the UN Secretary-General during initial consultations mentioned debris.

### Momentum for moratorium builds

On April 22, the United States announced a unilateral moratorium on destructive testing of



ground-based, direct-ascent anti-satellite missiles; it would not ban the development or possession of such capabilities, most of which are embedded in anti-ballistic missile defence systems. The focus on destructive testing means that accessing technology, developing ASAT capabilities, and conducting non-destructive flight tests are not restricted.

Nonetheless, this pledge by the United States complements and strengthens existing international commitments to mitigate the production of space debris, including UN guidelines on the long-term sustainability of outer space activities, while taking aim at a particular use of a weapons capability.

Such a strict test ban is also a strong arms control tool because it provides a clear and specific commitment that is easy for others to understand and to monitor for compliance, using widely accessible tools such as space situational awareness data, which are available from both state and commercial providers. The practical success that the moratorium affords can support subsequent initiatives that are wider in scope, while dampening a driver of arms racing and insecurity.

Momentum for a global moratorium is growing. First joined by Canada and then by New Zealand, Germany, Japan, the United Kingdom, South Korea, Switzerland, and Australia, the United States is now pursuing a UN resolution that calls upon all states to commit not to conduct destructive direct-ascent anti-satellite missile tests. As Canada noted, such an initiative could grow into a much desired legally binding agreement.

### **But obstacles remain**

Russia, China, and India – all states with demonstrated ASAT missile capabilities – are not yet

on board.

Both Russia and China claim that this moratorium, coming after states, including the United States, have demonstrated their own hit-to-kill capabilities in space, discriminates against states that don't have ASAT weapons. China insists that the United States is not "giving anything up," while Russia claims that "certain states won't have a shield while others still have a sword." Both states also claim that the moratorium is too narrow, leaving the door open to the development

and even operationalization of ASAT missile capabilities, while not addressing potential weapons capabilities in outer space at all.

Meanwhile, citing adherence to previous debris mitigation commitments, India insists that its own test was a "responsible" action.

It's likely that support for the moratorium will continue to grow, creating what Robin Dickey describes as "normentum." But success in bringing as many states as possible on board will ultimately

require an ability to cross political divides.

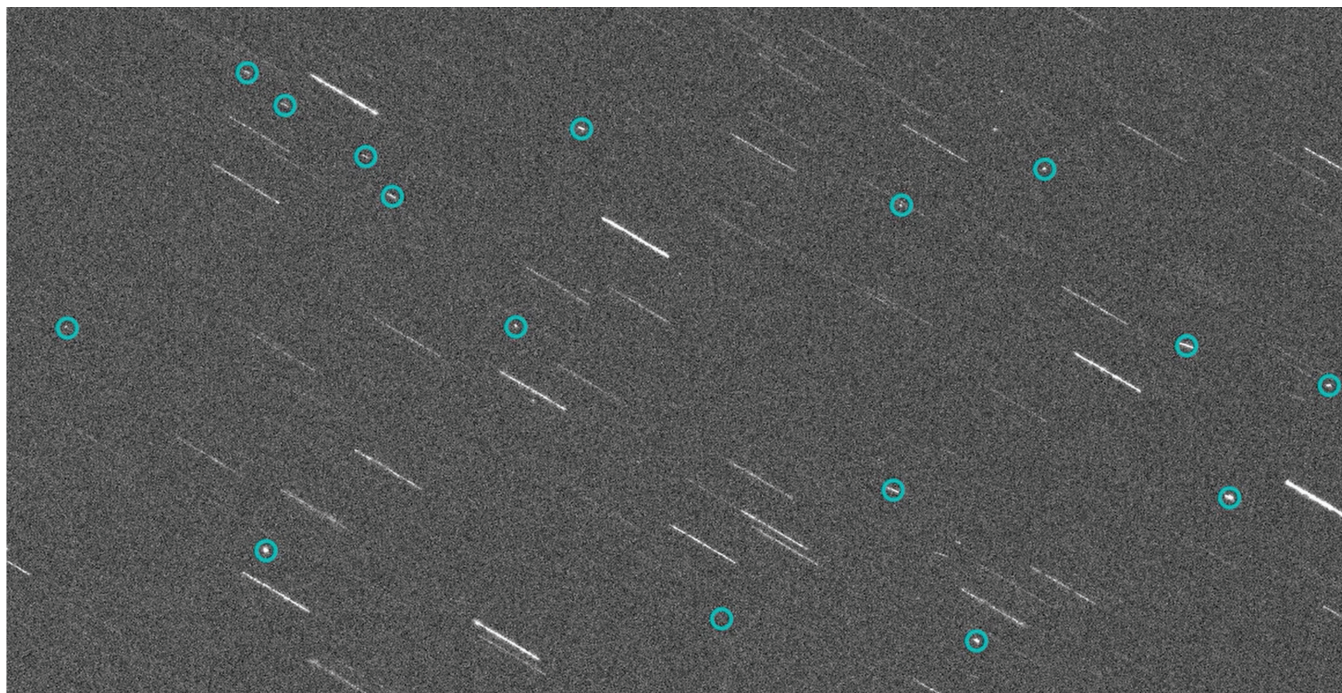
The fact that the moratorium narrowly takes aim at destructive tests of systems and not capabilities should help to dispel concerns about technology discrimination.

Concerns about asymmetric capabilities can also be eased. As with nuclear weapons, ASAT missiles have a limited use in combat, because no one, including the aggressor, can be protected from the destructive environmental effects of a strike. As well, the growing diversity and redundancy of space-based capabilities mean that the ability to strike at one or even a few satellites won't necessarily debilitate a system capability. Because states with fewer space capabilities



As with nuclear weapons, ASAT missiles have a limited use in combat, because no one, including the aggressor, can be protected from the destructive environmental effects of a strike. As well, the growing diversity and redundancy of space-based capabilities mean that the ability to strike at one or even a few satellites won't necessarily debilitate a system capability.





This telescope image shows debris from the Kosmos 1408 debris cloud shortly after destruction by impact with Russia's A-235 "Nudol" anti-satellite weapon. The image was collected at 5:43:11 UTC on 15 November, 2021, shortly after destruction of the satellite. "Kosmos 1408 post impact debris" by Cam Key on behalf of Numerica Corporation is licensed under CC BY-SA 4.0

are most vulnerable to the testing of destructive weapons, they have an incentive to rein in such behaviour.

### Thinking bigger

But increased political fragmentation of the space governance framework is still possible. To avoid such an outcome, we need to think bigger.

While the inherent threats created by destructive ASAT missile tests – both debris and arms racing – merit a moratorium, momentum on this initiative should also be used to expand the scope of security commitments related to outer space.

The narrative that the moratorium doesn't adequately constrain the United States hinders adoption and may reinforce political divides. The pursuit of additional modes of self-restraint can help. These might include moratoria or commitments related to other types of tests or demonstrations, such as directed energy or on-orbit capabilities; as well as restrictions on the deployment of space-

based anti-ballistic missile interceptors. To build confidence and trust, all commitments must be specific, unambiguous, and easy to observe or otherwise verify.

The point is not to hold one initiative hostage to others. As the United States admits, the moratorium is only one of many initiatives needed to improve outer space security. For this reason, ongoing meetings of the OEWG, where discussions address a wide range of threats to space systems and avenues for responsible behaviour, are extremely valuable.

We must also think beyond restraint. What is needed for space security to be realized is a range of new tools and mechanisms that allow better communication, consultation, information exchange, and data sharing.

Even without additional measures, this new U.S.-led moratorium is a win for both space sustainability and arms control. While more is needed, we should take a moment to appreciate the progress that has been made. □

*Jessica West is a Senior Researcher at Project Ploughshares. She can be reached at [jwest@ploughshares.ca](mailto:jwest@ploughshares.ca).*

## Space Café Canada

### Law and Peace in Space: Presenting the *McGill Manual on International Law*

On September 30, Ploughshares Senior Researcher Dr. Jessica West met with Dr. Ram Jakhu and David Kuan-Wei Chen, co-editor and managing editor, respectively, of the *McGill Manual on International Law Applicable to Military Uses of Outer Space* (McGill Manual). *Volume I – Rules* of the McGill Manual was published in July. *Volume II – Rules with Commentaries* will follow.

The Manual has been years in the making. One of the inspirations for it was the Space Security Index, which was managed by Project Ploughshares for many years and involved both Jessica and Dr. Jakhu, among others.

The McGill Manual is the product of technical and legal experts from around the world and from many sectors, including government, the military, academia, and civil society. It garnered significant support from McGill University as well as outside sources, including Canada's Department of National Defence and the Social Sciences and Humanities Research Council (SSHRC). The project attracted the attention of international observers, indicating that international law for outer space is high on the agendas of many governments and agencies.

However, even though there has been some government involvement, both guests emphasized that the process has been independent, neutral, and based on evidence, not opinion.

While the 52 Rules contained in the Manual apply to the military, they are not focused on armed conflict in space, nor do they relate only to the military. Instead, as Jessica noted, the focus is on peace and how these rules can support the continuing peaceful use of outer space by all humanity, even in times such as now, when tensions are rising. Dr. Jakhu asserted that conflict or war in space is not inevitable; this is also the view held by countries such as the United States.

International law makes no distinction between military and non-military activities or applications, except for such aspects as military communications. While all the rules covered in the Manual are important, getting the definitions straight is a solid place to begin, according to Dr. Jakhu.

Due regard for the interests of other States is an overriding principle that applies to all space activities. It is a core principle of the Outer Space Treaty, and arguably of international space law in general. Due regard includes the obligation to consult and be consulted before engaging in activities that affect other parties; this concept can be seen to relate to many other rules. The idea of due regard restricts freedom of action – in other words, in outer space, and on celestial bodies, you cannot simply do anything that you want.

The Manual relies on and refers to primary sources and statements of governments, not academic articles. One area in which consensus among the experts could not be reached dealt with environmental protection, as not all parties involved in the consensus-forming and rule-drafting process were convinced of the extent to which existing international laws addressing the protection of the environment apply to outer space.

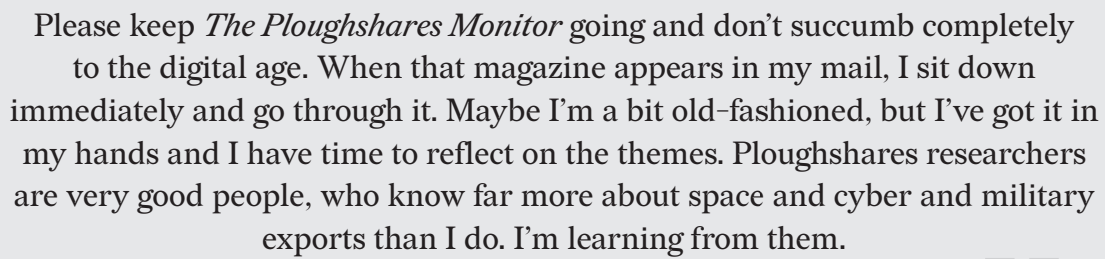
However, the Manual was not intended to cover everything. Some areas of law are not yet well defined. It might not be clear how to apply certain laws to space, as with environmental regulations.

This Manual is designed to be of practical value and relevance for all space actors. According to Mr. Chen, the use of technical experts grounded the rules in the scientific and technological realities of space activities and gave a better sense of what might happen in the next two decades. Upcoming outreach events will teach participants how to apply the rules in the Manual.

The forthcoming volume of the McGill Manual, expected to be published in early 2023, contains the commentaries to the Rules. Relying solely on existing jurisprudence, and the opinions and practices of States, the Commentaries will capture and elaborate on how the Rules were derived. A public consultation process was in place to solicit feedback from governments and interested parties to ensure that the commentaries reflect, to the greatest extent possible, viewpoints and perspectives on fundamental rules governing outer space.







Please keep *The Ploughshares Monitor* going and don't succumb completely to the digital age. When that magazine appears in my mail, I sit down immediately and go through it. Maybe I'm a bit old-fashioned, but I've got it in my hands and I have time to reflect on the themes. Ploughshares researchers are very good people, who know far more about space and cyber and military exports than I do. I'm learning from them.

**Ploughshares supporter Doug Roche**

With YOUR help, we will continue to produce high quality publications. Please continue to support our work. We value each donation so much. Thank you.

**Donate at [www.ploughshares](http://www.ploughshares) or call 1-888-907-3223**

