



**Pugwash Conference on Science and World Affairs:
Restoring a Strained Global Security Architecture**
20-21 October 2022

Location:
Balsillie School of International Affairs
67 Erb Street West, Waterloo
Room 1-42

Thursday, October 20th, 2022

6:00pm - 7:30pm	Opening of the Conference Participants meet and greet. Video address by Ambassador Bob Rae
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Friday, October 21st, 2022

8:45am – 9:00am	Opening Remarks presented by Cesar Jaramillo
9:00am – 10:00am	Panel 1 Russia's Invasion of Ukraine: Causes, Implications and Lessons Learned Speakers: Peggy Mason, Jill Sinclair, David Welch Moderator: Adele Buckley
10:00am – 10:15am	Break
10:20am – 11:20am	Panel 2 Strategic Stability Among Major Powers: US-China, US-Russia relations, power Speakers: Jeremy Paltiel, Jacob Benjamin and Matt Korda Moderator: Ellen Judd
11:25am- 12:25pm	Panel 3 NATO: Direction, Strategic Concept and Post-Ukraine Expansion Speakers: Halyna Padalko, Ernie Regehr and Robin Collins Moderator: Veronica Kitchen
12:30pm - 1:30pm	Lunchtime speaker Passing the Torch: The Importance of Disarmament Education Speaker: Setsuko Thurlow
1:35pm – 2:35pm	Panel 4 Future of Global Non-Proliferation, arms control and disarmament regimes: The NPT and the TPNW Speakers: Tariq Rauf, Jennifer Simons and Julie Clark Moderator: Cesar Jaramillo
2:35pm – 2:50pm	Break

2:55pm – 3:55pm	Panel 5 New domains, challenges, capabilities: space security, cyberwar, AI, and the future of warfare Speakers: Jessica West, Walter Dorn, Branka Marijan Moderator: Paul Heidebrecht
4:00pm – 5:00pm	Panel 6 A Role for Canada: Foreign and Security Policy in a Changing World Speakers: Ulric Shannon, Paul Meyer and Tim Donais Moderator: Andrew Thompson
5:05pm – 5:20pm	Concluding Remarks Presented by Andrew Thompson



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Speaker Biographies

Ambassador Bob Rae

Bob Rae is the Ambassador and Permanent Representative of Canada to the United Nations in New York. Mr. Rae served as Premier of Ontario from 1990-1995, and interim Leader of the Liberal Party of Canada from 2011-2013. He was elected to federal and provincial parliaments 11 times between 1978 and 2013. Mr. Rae received his Honours B.A. in Modern History from the University of Toronto, an M.Phil in Politics as a Rhodes Scholar at Oxford University, and graduated from the University of Toronto Faculty of Law in 1977. He was named a Queen's Counsel in 1984.

Jacob Benjamin

Jacob Benjamin is a Ph.D. student at the Balsillie School of International Affairs and the University of Waterloo, specializing in Conflict and Security. His research broadly looks at intensifying strategic competition in the South China Sea and the Indo-Pacific. Jacob assesses the Indo-Pacific strategies of various countries, from Vietnam to France to Canada. Jacob regularly contributes to journalistic and scholarly outlets, writing on various international relations issues. He earned an M.A. in Political Science from the University of Waterloo in 2021, and a (Honours) B.A. in Philosophy from Wilfrid Laurier University in 2019.

Adele Buckley

Adele Buckley, M.Sc., Ph.D., D.Sc.(hon) is a physicist, engineer(aerospace) and environmental Scientist. She is a Past Chair of Canadian Pugwash (CPG), a member of the international Pugwash Council and was the lead organizer for the 2017 Pugwash anniversary convention – 'Canada's Contribution to Global Security. She sits on the Steering Committee of Canadians for a Nuclear Weapons Convention CCNWC). Adele leads the CPG campaign for the nuclear-weapon-free Arctic, a topic she has presented on in several countries.

Julie Clark

Julie Clark is in the Ph.D. Global Governance program at the Balsillie School of International Affairs through Wilfrid Laurier University. Julie completed a master's degree in History with a focus on Modern Korean History and Northeast Asian Politics, with a research focus on the 1946-47 US-USSR Joint Commission on Korea. Following her master's, she was an Intern with the United Nations Office for Disarmament Affairs in Geneva, Switzerland where she worked with the Conference on Disarmament. Upon her return home to Winnipeg, she worked with the Canadian Museum for Human Rights where she conducted tours with a focus on inspiration and proactive involvement with human rights. In the summer of 2019, Julie joined Canada and OSCE in Ukraine as an Electoral Observer.

Robin Collins

Robin Collins has supported disarmament, global governance and peacekeeping campaigns for 30+ years. He is the Co-chairperson of the Canadian Network to Abolish Nuclear Weapons (CNANW) and Secretary of the Canadian Pugwash Group. He helped formulate the language for CPG and CNANW policy regarding NATO members signing the Treaty on the

Prohibition of nuclear weapons. Collins helped develop the Group of 78's 2016 policy paper, "The Shift to Sustainable Peace and Common Security." He is Secretary of the World Federalist Movement - Canada and focuses there on UN peacekeeping, a UN Emergency Peace Service, and the Responsibility to Protect. While Board Chair of Mines Action Canada, he was the primary author of MAC's position paper on cluster bombs and initiated a national landmine action technology competition for engineering students.

Tim Donais

Tim Donais is an Associate Professor in the Department of Global Studies at Wilfrid Laurier University and a faculty member of the Balsillie School of International Affairs. He is the co-facilitator of the BSIA's Conflict and Security Research Cluster and serves as Laurier's faculty research ambassador in the area of governance and policy. From 2018-22, he was the Director of the master's in international policy (MIPP) program and Co-Director of the Ph.D. Program in Global Governance. Tim's primary research interests lie in the area of post-conflict peacebuilding, with a particular focus on questions of ownership and inclusivity in peace processes, and in the field of peace operations, with a specific emphasis on civilian protection issues.

Walter Dorn

Walter Dorn is Professor of Defence Studies at the Royal Military College of Canada (RMC) and the Canadian Forces College (CFC). He teaches officers of rank major to brigadier-general from Canada and about 20 other countries. He specializes in arms control, international criminal law, just war theory, peace operations, treaty verification and enforcement, and the United Nations. He has served as a consultant with the UN's Department of Peacekeeping Operations, including in 2014 on the Expert Panel on Technology and Innovation in UN Peacekeeping. In 2020, during sabbatical leave, Dr. Dorn was with the UN as a "Technology Innovation Expert" exploring technologies for testing, piloting and employing in UN field operations.

Paul Heidebrecht

Paul Heidebrecht is the inaugural director of the Kindred Credit Union Centre for Peace Advancement, and an adjunct assistant professor who teaches courses in Peace and Conflict Studies at Conrad Grebel University College. His current research interests reflect a range of academic fields and professional experiences, including the intersection of peacebuilding and social innovation, technology and ethics, and political advocacy.

Cesar Jaramillo

Cesar Jaramillo is the executive director at Project Ploughshares and Chair of the Canadian Pugwash Group. His focus areas include nuclear disarmament, outer space security, the protection of civilians in armed conflict, emerging military technologies and conventional weapons controls. As an international civil society representative, Cesar has addressed, among others, the UN General Assembly First Committee, the Conference on Disarmament, the UN Committee on the Peaceful Uses of Outer Space, as well as states parties to the Nuclear Non-Proliferation Treaty and the Arms Trade Treaty. Cesar graduated from the University of Waterloo with an MA in global governance and bachelor's degrees in political science and journalism.

Ellen Judd

Ellen Judd is Distinguished Professor Emerita at the University of Manitoba and Visiting Professor of Anthropology at the University of British Columbia. Her research focuses on political anthropology, political economy, gender and human rights. Her ethnographic work is concentrated on studies of sociocultural change in contemporary rural and urban China. She was educated at Queen's University, the University of British Columbia, Fudan University, Beijing University and the University of Cambridge, and has held visiting appointments at Sun Yatsen University, Chongqing University, Columbia University and the London School of Economics. She has been increasingly concerned with the renewed arms race, escalating tensions on the Korean Peninsula and the US pivot to Asia. Continuing wider concerns with disarmament, she finds her scholarly research converging with her concern for peace.

Veronica Kitchen

Veronica Kitchen is an Associate Professor of Political Science at the University of Waterloo and the Balsillie School of International Affairs. Her research is primarily on national security in a Canadian context, from the perspective of critical

and feminist security studies. She is an executive member of the Canadian Network for Research on Terrorism, Security and Society (TSAS) and in 2018-2019 was its Acting Director. She is an active member of Women in International Security (WIIS) Canada, and part of the editorial board of International Journal. Before joining the University of Waterloo, Veronica was an SSHRC Post-Doctoral Fellow at the Centre of International Relations at the University of British Columbia. She completed her Ph.D. in political science at Brown University, where she was a Fulbright Scholar.

Matt Korda

Matt Korda is a Senior Research Associate and Project Manager for the Nuclear Information Project at the Federation of American Scientists, where he co-authors the Nuclear Notebook—an authoritative open-source estimate of global nuclear forces and trends. Matt is also an Associate Researcher with the Weapons of Mass Destruction Programme at the Stockholm International Peace Research Institute (SIPRI). Previously, he worked for the Arms Control, Disarmament, and WMD Non-Proliferation Centre at NATO HQ in Brussels. He received his MA in International Peace & Security from the Department of War Studies at King's College London, where he subsequently worked as a Research Assistant on nuclear deterrence and strategic stability. He also completed an internship with the Verification, Training and Information Centre (VERTIC) in London, where he focused on nuclear security and safeguards.

Branka Marijan

Branka Marijan is a Senior Researcher at Project Ploughshares, where she leads the research on emerging technologies' military and security implications. Her work examines concerns regarding the development of autonomous weapons systems and the impact of artificial intelligence and robotics on security provision and trends in warfare. Her research interests include trends in warfare, civilian protection, the use of drones, and civil-military relations. She holds a Ph.D. from the Balsillie School of International Affairs with a specialization in conflict and security. She has researched post-conflict societies and published academic articles and reports on the impacts of conflict on civilians and diverse issues of security governance, including security sector reform.

Peggy Mason

Peggy Mason is the President of the Rideau Institute, an independent think tank with a mandate to help revitalize Canada's peacekeeping, diplomatic peacemaking and peacebuilding roles in the world, through inclusive multilateralism, strengthening the UN capacity for conflict prevention and peaceful conflict resolution and the progressive enhancement of international law. Peggy has had a distinguished career in the field of international security, with a particular emphasis on the United Nations, where she served as Canada's Ambassador for Disarmament from 1989 to 1995. She has led Canadian delegations to NPT and BWC Review Conferences chaired UN expert groups on arms control verification and small arms regulation and served for two terms on the UN Secretary-General's Advisory Board on Disarmament. In 2013 she received an achievement award from Canadians for a Nuclear Weapons Convention for her commitment to a nuclear-weapons-free world.

Paul Meyer

Paul Meyer is a Fellow in International Security and Adjunct Professor of International Studies at Simon Fraser University in Vancouver (since 2011). Before assuming his current appointments in 2011, Paul had a 35-year career with the Canadian Foreign Service. He had diplomatic assignments in Oslo, Moscow, Brussels (NATO), Washington, Tokyo and from 2003-2007 in Geneva where he served as Canada's Ambassador and Permanent Representative to the United Nations and the Conference on Disarmament. At the Department of Foreign Affairs and International Trade's HQ, Paul held a variety of positions including Director General for International Security (1998-2001) and Director General for Security and Intelligence (2007-2010). He is a Senior Advisor to ICT4Peace and a Fellow of the Outer Space Institute. He teaches a course on diplomacy at SFU and writes on issues of nuclear non-proliferation and disarmament, space security and international cyber security.

Halyna Padalko

Halyna Padalko is MAGG student at Balsillie School of International Affairs. Halyna has a background in media communication, and she is doing a Ph.D. in computer science at the National Aerospace University, "Kharkiv Aviation Institute", working on analyzing Russian propaganda on social media.

She recently came to Canada and entered MAGG program to study security and peacebuilding."

Jeremy Paltiel

Jeremy Paltiel is a professor of political science at Carleton University in Ottawa and was visiting professor at the department of international relations at Tsinghua University in Beijing in 2009. He previously taught at the University of Alberta (1984-1990), the University of Arizona (1983-84), and the University of California at San Diego (1981-83). He received his BA in East Asian Studies from the University of Toronto in 1974 a diploma in Philosophy from Beijing University in 1976 his MA (1979) and his Ph.D. (1984) in political science from the University of California, Berkeley, where his Ph.D. dissertation was a comparative study of political succession and economic reform in the Soviet Union and China. He continues to study the elite politics of the Chinese Communist including, "How the Party Markets Itself to China" (2009); "PLA Allegiance On Parade: Civil-Military Relations in Transition"(1995); "Jiang Talks Politics—Who Listens? Institutionalization and Its Limits in Market Leninism"(2001). He has published widely on subjects relating to China and its foreign relations, including the political economy of the transition to market economies, management training in the People's Republic of China, and a comparison of business culture in China and Canada.

Tariq Rauf

Tariq Rauf was Head of Verification and Security Policy Cooperation at the International Atomic Energy Agency; Alternate Head of the IAEA NPT Delegation 2002-2010; IAEA Liaison and Point-of-Contact for the Trilateral Initiative, the Plutonium Management and Disposition Agreement, the Fissile Material Control Treaty, the Nuclear Suppliers Group, the Zangger Committee, Committee UNSCR 1540, and the (UN) Counter-Terrorism Implementation Task Force (CTITF); and responsible for the IAEA Forum on Experience of Nuclear-Weapon-Free Zones Relevant for the Middle East. He has attended all NPT meetings since 1987 as an official delegate including as Non-Proliferation Expert with Canada's NPT Delegation 1987-2000, and Senior Advisor to the 2014 NPT PrepCom Chair and the Chair of Main Committee I at the 2015 review conference.

Ernie Regehr

Ernie Regehr is Senior Fellow in Arctic Security and Defence with The Simons Foundation Canada and is Research Fellow at the Centre for Peace Advancement, Conrad Grebel University College, University of Waterloo. He is co-founder and former Executive Director of Project Ploughshares and currently chairs the Steering Committee of Can Asians for a Nuclear Weapons Convention. His publications include books, monographs, journal articles, policy papers, parliamentary briefs, and op-eds. Ernie has served as an NGO representative and expert advisor on Government of Canada delegations to multilateral disarmament forums, including Review Conferences of the Nuclear Non-Proliferation Treaty and UN Conferences on Small Arms. He is an Officer of the Order of Canada.

Ulric Shannon

Ulric Shannon is Director General of the Peace and Stabilization Operations Program at Global Affairs Canada. He is a career diplomat in the Canadian foreign service who has specialized in stabilization and conflict issues, mainly in the Arab and Muslim worlds. He served as Canada's ambassador to Iraq from 2019 to 2021, overseeing one of Canada's largest development, humanitarian, stabilization, and military assistance programs anywhere in the world. His previous postings have included Egypt, the Palestinian Territories, Pakistan, and Turkey, where he served as Canada's Consul General in Istanbul from 2016 to 2019.

Jennifer Simons

Jennifer Allen Simons, C.M., Ph.D., LL.D. is Founder and President of The Simons Foundation Canada, an innovative private foundation based in Vancouver committed to advancing positive change through education in peace, disarmament, international law, and human security. Dr. Simons is an Adjunct Professor with Simon Fraser University's School for International Studies and Senior Visiting Fellow and Dialogue Associate at SFU's Morris J. Wosk Centre for Dialogue. Dr. Simons is a Founding Partner of Global Zero, a Council Member of Pugwash Conferences on Science and World Affairs, a member of the Steering Committee of Canadians for a Nuclear Weapons Convention (CNWC), a Patron of Initiatives pour le Désarmement Nucléaire – IDN (Nuclear Disarmament Initiative – NDI). She has been instrumental in the establishment of several important non-governmental organizations and has worked with many other NGOs, multilateral institutions and educational centres on a common agenda.

Jill Sinclair

Jill Sinclair has been a member of Canada's defence, international security and foreign policy community for most of her professional career. As part of the Strategic Joint Staff at the Dept of National Defence, she was appointed by the Chief of Defence Staff and Deputy Minister as Canada's representative to the Ukraine Defence Reform Advisory Board. She was the Senior Official for Global Affairs Canada for the Toronto Ukraine Reform Conference 2019. Jill worked with Chief Military Personnel and the Canadian Defence Academy as Executive Director of Strategic Leadership and Engagement. She served for seven years as Assistant Deputy Minister of Policy, DND after an appointment as Assistant Secretary to the Cabinet at PCO's Foreign and Defence Policy Secretariat, and acting Advisor to the PM for a period. She joined the government as a Foreign Service officer, with postings in Prague, Havana and the Middle East as Canada's envoy to the Middle East Peace Process.

Andrew Thompson

Andrew Thompson is an adjunct assistant professor of political science at the University of Waterloo, a senior fellow at the Centre for International Governance Innovation, and the Global Governance Programs and Partnership Manager at the Balsillie School of International Affairs. He holds a Ph.D. in history from the University of Waterloo and is a specialist in the fields of international human rights, civil society movements and fragile states. He is the author and co-editor of five books, *On the Side of the Angels: Canada and the United Nations Commission on Human Rights* (UBCP, 2017), *Fixing Haiti: MINUSTAH and Beyond* (UNUP, 2011), *In Defence of Principles: NGOs and Human Rights in Canada* (UBCP, 2010), *Critical Mass: The Emergence of Global Civil Society* (CIGI/WLUP 2008), and *Haiti: Hope for a Fragile State* (CIGI/WLUP 2006), along with numerous journal articles and book chapters.

Setsuko Thurlow

Setsuko Thurlow is a survivor of the atomic bombing of Hiroshima and she has been engaged in educating the public and actively advocating for nuclear disarmament throughout her life. Over the years, the scope of her efforts has expanded from the local to the global level. She was appointed to the Order of Canada, and received commendation from the Japanese Government. She is a recipient of the 2015 Arms Control Person of the Year (Arms Control Association, Washington, DC); the Distinguished Peace Leadership Award (Nuclear Age Peace Foundation, California); and the Ahmadiyya Muslim Prize for the Advancement of Peace (London, UK). In 2017, she accepted the Nobel Peace Prize on behalf of the International Campaign to Abolish Nuclear Weapons, and in 2018, she received honorary degrees from her alma mater, the University of Lynchburg, and the University of Waterloo.

David Welch

David Welch is the University Research Chair and Professor of Political Science at the University of Waterloo and the Balsillie School of International Affairs. His 2005 book *Painful Choices: A Theory of Foreign Policy Change* (Princeton University Press) is the inaugural winner of the International Studies Association ISSS Book Award for the best book published in 2005 or 2006, and his 1993 book *Justice and the Genesis of War* (Cambridge University Press) is the winner of the 1994 Edgar S. Furniss Award for an Outstanding Contribution to National Security Studies. He is co-author of *Understanding Global Conflict and Cooperation* 10th ed. (Pearson Longman, 2016); *Virtual JFK: Vietnam If Kennedy had Lived* (Rowman & Littlefield, 2009); *The Cuban Missile Crisis: A Concise History* (Oxford University Press, 2nd ed. 2011); *On the Brink: Americans and Soviets Reexamine the Cuban Missile Crisis* (2nd ed., Noonday 1990); and *Cuba on the Brink: Castro, The Missile Crisis, and the Soviet Collapse* (2nd ed., Rowman & Littlefield, 2002).

Jessica West

Jessica West is a Senior Researcher at Project Ploughshares, a Canadian peace research institute with a focus on disarmament efforts and international security. She serves as Managing Editor for the international Space Security Index project as part of a larger research and policy focus on technology, security, and governance. As an international civil society representative, Jessica has addressed, among others, the UN General Assembly First Committee (Disarmament and International Security), the UN Conference on Disarmament, the UN Committee on the Peaceful Uses of Outer Space (COPUOS), and presented at conferences in Canada, the United States, Europe, and Asia. She holds a Ph.D. in global governance and international security studies from the Balsillie School of International Affairs, Wilfrid Laurier University.