

2021 PPNT Boot Camp

July 26 - July 30

Speakers

A stylized atomic symbol graphic in the background, featuring a central orange circle and two elliptical orbits with orange dots at their foci.

UC INSTITUTE ON GLOBAL
CONFLICT & COOPERATION
**PUBLIC POLICY &
NUCLEAR THREATS**



Linton F. Brooks

Ambassador Linton F. Brooks is an independent consultant on national security issues, a non-resident Senior Advisor at the Center for Strategic and International Studies, a Distinguished Research Fellow at the National Defense University, a member of the National Academy of Sciences Committee on International Security and Arms Control, one of the Board of Managers overseeing the operations of the Sandia National Laboratories, and an advisor to three other Department of Energy national laboratories. Ambassador Brooks has six decades of experience in national security, much of it associated with nuclear weapons. He served from July 2002 to January 2007 as Administrator of the U.S. Department of Energy's National Nuclear Security Administration, where he was responsible for the U.S. nuclear weapons program and for the Department of Energy's international nuclear nonproliferation programs. His government service includes service as Deputy Administrator for Nuclear Nonproliferation at the National Nuclear Security Administration, Assistant Director of the United States Arms Control and Disarmament Agency, Chief U.S. Negotiator for the Strategic Arms Reduction Treaty, Director of Defense Programs and Arms Control on the National Security Council staff and a number of Navy and Defense Department assignments as a 30-year career naval officer.

Ambassador Brooks holds degrees in Physics from Duke University and in Government and Politics from the University of Maryland and is a Distinguished Graduate of the U.S. Naval War College. He is the author of a number of articles and book chapters on national and nuclear strategy and speaks frequently on these and related issues. Since 2008 he has served as an Expert in Residence during the annual Public Policy and Nuclear Threats program.



Bethany Goldblum

Dr. Bethany L. Goldblum is a staff scientist in the Nuclear Science Division at Lawrence Berkeley National Laboratory and an associate research engineer in the Department of Nuclear Engineering at the University of California, Berkeley. As Executive Director of the Nuclear Science and Security Consortium, she provides strategic direction for an effort bringing together seven universities and five U.S. DOE National Laboratories to train the next generation of nuclear security experts. Her research focuses on low-energy nuclear physics, neutron detection, and artificial intelligence for nuclear security applications. Goldblum leads the Bay Area Neutron Group, a research team focused on applied neutron physics for nuclear security applications, and founded and directs the Nuclear Policy Working Group, an interdisciplinary team of scholars developing policy solutions to strengthen global nuclear security. She has been involved with the Public Policy and Nuclear Threats Boot Camp nearly since its inception, and acted as director of the program since 2014. She is author or co-author of more than 80 publications on nuclear science and policy issues and recipient of the 2020 Corones Award in Leadership, Community Building and Communication. Goldblum received a Ph.D. in Nuclear Engineering from the University of California, Berkeley.



Marv Adams

Marv Adams is associate director at the Institute for National Security and Cybersecurity Education and Research at Texas A&M University. His research interests include computational transport theory, efficient algorithms for massively parallel scientific and engineering calculations, and quantification of uncertainties in predictive science and engineering groups. He received his Ph.D. in nuclear engineering from the University of Michigan.



Newell Highsmith

Newell Highsmith served for 30 years as an attorney at the U.S. Department of State, with primary responsibility for legal issues related to arms control and the nonproliferation of weapons of mass destruction and missiles. He headed the legal office responsible for such issues from 2002 to 2013 before taking on broader responsibilities as a deputy legal adviser from 2013 to 2017. He served as primary or sole legal adviser on the U.S. delegations that negotiated the 1994 Agreed Framework with North Korea, the 2008 Agreement for Nuclear Cooperation with India and the 2015 Joint Comprehensive Plan of Action with Iran. In addition, he was directly involved in negotiating the New START Treaty with Russia, analyzing the legal issues raised by Syria's use of chemical weapons and its construction of a clandestine nuclear reactor, establishing dual-use export controls in the Nuclear Suppliers Group, responding to Indian and Pakistani nuclear testing, facilitating Libya's renunciation of weapons of mass destruction, and responding to the revelations regarding Iraq's nuclear weapons program. He was responsible for the legal interpretation of numerous arms control and nonproliferation statutes and treaties, including the Nuclear Nonproliferation Treaty, the Statute of the IAEA, the Atomic Energy Act, relevant U.N. Security Council resolutions and various U.S. sanctions laws. Prior to joining the State Department, Highsmith worked in private practice and was a teaching fellow at George Washington University Law School. He received a B.A. in English from the University of North Carolina at Chapel Hill, a J.D. from Harvard Law School and an LLM in international law from the George Washington University Law School.



Laura S. Holgate

Ambassador Laura S. Holgate is vice president of materials risk management at the Nuclear Threat Initiative. Previously, she served as U.S. Representative to the Vienna Office of the United Nations and the International Atomic Energy Agency from July 2016 to January 2017. Holgate led the design and launch of Gender Champions in Nuclear Policy in November 2018. Holgate was the special assistant to the president and senior director for weapons of mass destruction terrorism and threat reduction on the U.S. National Security Council. She was the U.S. Sherpa to the Nuclear Security Summits and co-led the effort to advance the President's Global Health Security Agenda. From 2001 to 2009, Holgate was the vice president for Russia/New Independent States programs at the Nuclear Threat Initiative. Holgate received a B.A. in politics from Princeton University and an M.A. in political science from the Massachusetts Institute of Technology. Holgate currently advises the Third Way Foundation's project on advanced nuclear reactors and national security. She serves on the Steering Group of the Fissile Material Working Group and on the Szilard Advisory Board of the Center for Arms Control and Nonproliferation. She is a senior nonresident fellow at the Belfer Center, and a member of advisory panels for the nuclear engineering departments at the University of Michigan and Pennsylvania State University. She is a past president of Women in International Security and a member of the Council on Foreign Relations.



Rose Gottemoeller

Rose Gottemoeller is the Frank E. and Arthur W. Payne Distinguished Lecturer at Stanford University's Freeman Spogli Institute for International Studies and its Center for International Security and Cooperation. Before joining Stanford, Gottemoeller was the Deputy Secretary General of NATO from 2016 to 2019 where she helped to drive forward NATO's adaptation to new security challenges in Europe and in the fight against terrorism. Prior to NATO, she served for nearly five years as the Under Secretary for Arms Control and International Security at the U.S. Department of State, advising the Secretary of State on arms control, nonproliferation and political-military affairs. While Assistant Secretary of State for Arms Control, Verification and Compliance in 2009 and 2010, she was the chief U.S. negotiator of the New Strategic Arms Reduction Treaty (New START) with the Russian Federation. Prior to her government service, she was a senior associate with the Carnegie Endowment for International Peace, with joint appointments to the Nonproliferation and Russia programs. She served as the Director of the Carnegie Moscow Center from 2006 to 2008, and is currently a nonresident fellow in Carnegie's Nuclear Policy Program. She is also a research fellow at the Hoover Institution. At Stanford, Gottemoeller teaches and mentors students in the Ford Dorsey Master's in International Policy program and the CISAC Honors program; contributes to policy research and outreach activities; and convenes workshops, seminars and other events relating to her areas of expertise, including nuclear security, Russian relations, the NATO alliance, EU cooperation and nonproliferation.



Susan J. Koch

Dr. Susan J. Koch is an independent consultant, specializing in arms control and nonproliferation policy. She is a Distinguished Research Fellow at the National Defense University Center for the Study of Weapons of Mass Destruction and a Senior Scholar at the National Institute for Public Policy. From 1982 until 2007, Dr. Koch held a series of senior positions in the White House National Security Council Staff, the Office of the Secretary of Defense, the Department of State and the U.S. Arms Control and Disarmament Agency, focused on nonproliferation and arms reduction policy. Dr. Koch received the Presidential Distinguished and Meritorious Executive Awards, the Department of Defense Distinguished Civilian Service Medal five times, the Department of Defense Nunn-Lugar Trailblazer Award, the Arms Control and Disarmament Agency Distinguished Honor Award, the Department of State Meritorious Honor Award, and the Mount Holyoke College Alumnae Achievement Award. Dr. Koch received a B.A. from Mount Holyoke College and an M.A. and Ph.D. in political science from Harvard University.



Matthew Kroenig

Matthew Kroenig is the deputy director of the Atlantic Council's Scowcroft Center for Strategy and Security at the Atlantic Council and a tenured associate professor of government and foreign service at Georgetown University. He previously served in several positions in the U.S. government, including in the Strategy Office in the Office of the Secretary of Defense and the Strategic Assessments Group at the Central Intelligence Agency. He regularly consults with a range of U.S. government entities. He is the author or editor of seven books, including *The Return of Great Power Competition: Democracy versus Autocracy from the Ancient World to the United States*, *Russia, and China Today* and *A Time to Attack: The Looming Iranian Nuclear Threat*. His articles and opinion pieces have appeared in *American Political Science Review*, *Foreign Affairs*, *Foreign Policy*, *International Organization*, *Politico*, the *Wall Street Journal*, the *Washington Post* and many other outlets. He has previously worked as a fellow at the Council on Foreign Relations, Harvard University and Stanford University. Kroenig provides regular commentary for major media outlets, including PBS, NPR, BBC, CNN and C-SPAN. He is a life member of the Council on Foreign Relations and holds an M.A. and Ph.D. in political science from UC Berkeley.



Rolf Mowatt-Larssen

Rolf Mowatt-Larssen is a senior fellow at the Belfer Center, having served until July 2019 as director of the Center's Intelligence Project. Before coming to the Belfer Center, Mowatt-Larssen served over three years as the Director of Intelligence and Counterintelligence at the U.S. Department of Energy. Prior to this, he served for 23 years as a CIA intelligence officer in various domestic and international posts, including Chief of the Europe Division in the Directorate of Operations, Chief of the Weapons of Mass Destruction Department, Counterterrorist Center, and Deputy Associate Director of Central Intelligence for Military Support. Prior to his career in intelligence, Mr. Mowatt-Larssen served as an officer in the U.S. Army. He is a graduate of the United States Military Academy, West Point, NY. He is married to Roswitha and has three children. He is a recipient of the CIA Director's Award, the George W. Bush Award for Excellence in Counterterrorism, the Secretary of Energy's Exceptional Service Medal, the Distinguished Career Intelligence Medal, Secretary of Defense Civilian Distinguished Service Medal, and the National Intelligence Superior Performance Medal, among others.



Per Peterson

Dr. Per Peterson is the William S. Floyd and Jean McCallum Floyd Chair in Engineering and professor in the Nuclear Engineering Department at the University of California, Berkeley.

Peterson's research focuses on problems in energy and environmental systems, including high-temperature reactors, high level nuclear waste processing, and nuclear materials management. Peterson also manages the UC Berkeley Thermal Hydraulics Research Laboratory. Peterson teaches undergraduate and graduate courses in heat and mass transfer, fluid dynamics, reactor thermal hydraulics, and reactor safety. The courses focus on nuclear applications. His research interests involve issues in reactor safety and licensing, high-temperature reactor technology, nuclear air combined cycle power conversion, condensation and large-scale mixing processes in advanced passive reactors, and nuclear materials management and security. Specific ongoing research projects include studies of heat transport and fluid mechanics in liquid-fluoride salt cooled reactors; gas-Brayton power conversion for nuclear systems; performance based, technology neutral regulation and licensing of advanced reactors; seismic base isolation and modular construction methods; and security and safeguards technologies for nuclear materials and facilities. He received his Ph.D. in mechanical engineering from the University of California, Berkeley.



Laura Rockwood

Laura Rockwood is the director of Open Nuclear Network (ONN), a program of One Earth Future. Rockwood has over 30 years of experience in nonproliferation and international safeguards. She has published extensively on safeguards and nonproliferation. In July 2012, she was honored with the Distinguished Service Award by the Institute of Nuclear Materials Management (INMM) for long-term noteworthy accomplishments in, and service to, the nuclear materials management profession. Rockwood retired from the International Atomic Energy Agency (IAEA) in November 2013 as the Section Head for Non-Proliferation and Policy in the Office of Legal Affairs after 28 years of service. During her employment with the IAEA, she was the senior legal advisor on all aspects of the negotiation, interpretation and implementation of IAEA safeguards, and was the principal author of the document that became the Model Additional Protocol. She participated in high-level negotiations on Iran, Iraq and North Korea, and in the IAEA/U.S./Russian Federation negotiations on the Trilateral Initiative and the Plutonium Management and Disposition Agreement. Rockwood came to ONN from her position as executive director of the Vienna Center for Disarmament and Non-Proliferation (VCDNP) between 2015 and 2019. Prior to joining the VCDNP, she served as a resident senior research fellow at Harvard University's Kennedy School Belfer Center Managing the Atom Project. She received her B.A. degree from the University of California, Berkeley, and her Juris Doctor from the University of California's Hastings College of Law in San Francisco.



Matthew Rojansky

Matthew Rojansky is the director of the Kennan Institute at the Woodrow Wilson Center in Washington, D.C. An expert on U.S. relations with the states of the former Soviet Union, especially Russia, Ukraine, and Belarus, he has advised governments, intergovernmental organizations, and major private actors on conflict resolution and efforts to enhance shared security throughout the Euro-Atlantic and Eurasian region. Previously, Rojansky was deputy director of the Russia and Eurasia Program at the Carnegie Endowment for International Peace. He also served as an embassy policy specialist at the U.S. Embassy in Kyiv, Ukraine, and as a visiting scholar in the Research Division at the NATO Defense College. Rojansky previously served as executive director of the Partnership for a Secure America (PSA). While at PSA, Rojansky orchestrated high-level bipartisan initiatives aimed at repairing the U.S.-Russian relationship, strengthening the U.S. commitment to nuclear arms control and nonproliferation, and leveraging global science engagement for diplomacy. Rojansky is an adjunct professor at Johns Hopkins SAIS, and serves as U.S. Executive Secretary for the Dartmouth Conference, a track-two U.S.-Russian conflict resolution initiative begun in 1960. He has lectured at colleges and universities throughout the United States, Russia and Europe, and is a member of the OSCE Cooperative Security Initiative and the Euro-Atlantic Security Leaders Group. Rojansky is frequently interviewed on TV and radio, and his writing has appeared in the New York Times, the Washington Post, and Foreign Policy. He holds an A.B. from Harvard College and a J.D. from Stanford Law School.



Scott D. Sagan

Scott D. Sagan is the Caroline S.G. Munro Professor of Political Science, the Mimi and Peter Haas University Fellow in Undergraduate Education and senior fellow at the Center for International Security and Cooperation and the Freeman Spogli Institute at Stanford University. He also serves as chairman of the American Academy of Arts and Sciences' Committee on International Security Studies. Before joining the Stanford faculty, Sagan was a lecturer in the Department of Government at Harvard University and served as special assistant to the director of the Organization of the Joint Chiefs of Staff in the Pentagon. Sagan has also served as a consultant to the office of the Secretary of Defense and at the Sandia National Laboratory and the Los Alamos National Laboratory. In 2018, Sagan received the Andrew Carnegie Fellowship from the Carnegie Corporation of New York. In 2017, he received the International Studies Association's Susan Strange Award which recognizes the scholar whose "singular intellect, assertiveness, and insight most challenge conventional wisdom and intellectual and organizational complacency" in the international studies community. Sagan was also the recipient of the National Academy of Sciences William and Katherine Estes Award in 2015, for his work addressing the risks of nuclear weapons and the causes of nuclear proliferation. The award, which is granted triennially, recognizes "research in any field of cognitive or behavioral science that advances understanding of issues relating to the risk of nuclear war." In 2013, Sagan received the International Studies Association's International Security Studies Section Distinguished Scholar Award.



John Scott

John Scott leads the National Security and International Studies Office at Los Alamos National Laboratory, which helps to engage on policy issues associated with nuclear weapons. He also leads the director's Strategic Resilience Initiative, an effort aimed at understanding how we ensure the efficacy of the stockpile in light of a rapidly changing world. Scott started at Los Alamos National Laboratory in 1998 as a postdoctoral research associate studying challenges related to Inertial Confinement Fusion physics. He became a staff member in the secondary design group in 2000 working on nuclear weapon problems as part of the broader stockpile stewardship program. Scott was the secondary physics lead for the W88 and B61 weapons and was the lead secondary designer for the RRW project during the second half of the 2000s. Scott became the group leader for the secondary design group in 2014 and later moved to deputy division leader for stockpile for the weapons design division.



Mark Schanfein

Mark Schanfein is senior nonproliferation advisor at Idaho National Laboratory (INL). He has over 40 years' experience in nonproliferation and safeguards including a 20-year career at Los Alamos National Laboratory (LANL). He served as a technical expert on the ground in the DPRK during the disablement activities resulting from the 6-Party Talks under the Bush administration. He has previously worked for Pacific Northwest National Laboratory (PNNL) and oversight at Lawrence Livermore National Laboratory (LLNL). Mark has 8 years of experience working at the International Atomic Energy Agency (IAEA) in Vienna, Austria, 4 years as a safeguards inspector and 4 years as the Unit Head for Unattended Monitoring Systems (UMS), responsible for the installation of all IAEA unattended autonomous systems in nuclear fuel cycle facilities worldwide. He supports multiple safeguards training programs including International Nuclear Safeguards Engagement Program and Human Capital Development and has recently supported projects on pandemic considerations for the IAEA and State Regulatory Authorities. His current focus is on emerging technologies for applications in international safeguards with a current interest in digital twins, artificial intelligence and machine learning. In 2020, Mark was elected as the Vice President for the Institute of Nuclear Materials Management.



Nina Tannenwald

Nina Tannenwald is director of the International Relations Program at Brown University's Watson Institute for International Studies and a senior lecturer in political science. Her research focuses on the role of international institutions, norms and ideas in global security issues, efforts to control weapons of mass destruction, and human rights and the laws of war. Her book, *The Nuclear Taboo: The United States and the Non-use of Nuclear Weapons Since 1945* was awarded the 2009 Leggold Prize for best book in international relations. Her current research projects include targeted killing, the future of the nuclear normative order, and the effectiveness of the laws of war. In 2012–2013 she served as a Franklin Fellow in the Bureau of International Security and Nonproliferation in the U.S. State Department. She holds a master's degree from the Columbia School of International and Public Affairs and a Ph.D. in international relations from Cornell University.



William Tobey

William Tobey is director of U.S. – Russia Initiative to Prevent Nuclear Terrorism at the Harvard Kennedy School Belfer Center for Science and International Affairs. He was Deputy Administrator for Defense Nuclear Nonproliferation at the National Nuclear Security Administration from 2006-2009. There, he managed the U.S. government’s largest program to prevent nuclear proliferation and terrorism by detecting, securing, and disposing of dangerous nuclear material. Mr. Tobey also served on the National Security Council Staff under three presidents, in defense policy, arms control, and counter-proliferation positions. He has participated in international negotiations ranging from the START talks with the Soviet Union to the Six Party Talks with North Korea. He also has ten years experience in investment banking and venture capital. He serves on the Nuclear and Radiation Studies Board of the National Academies of Sciences Engineering and Medicine. He chairs the board of the World Institute for Nuclear Security.



Christopher P. Twomey

Christopher P. Twomey is an associate professor in the Department of National Security Affairs at the Naval Postgraduate School, where he focuses on Chinese foreign policy and East Asian security issues in his teaching and research. He authored *The Military Lens: Doctrinal Difference and Deterrence Failure in Sino-American Relations* (Cornell University Press, 2010) and articles in journals such as *Security Studies*, *Journal of Contemporary China*, *The Washington Quarterly*, and *Asian Survey*. He has edited two books and published chapters in a dozen others, including most recently, “China’s Nuclear Doctrine and Deterrence Concept,” in Paul Bolt and James Smith, eds., *China’s Strategic Arsenal: Worldview, Doctrine, and Systems* (Washington, DC: Georgetown University Press, 2021). His work has supported of the Office of the Secretary of Defense, the State Department, INDOPACOM, RAND, NBR, and others. He has led a track 2 diplomatic engagement with China centering on strategic issues since its inception in 2005. Dr. Twomey received his B.A. and M.A. from the University of California, San Diego, his Ph.D. in political science from the Massachusetts Institute of Technology, and conducted postdoctoral research at Harvard.



John K. Warden

John K. Warden is a researcher in the Strategy, Forces and Resources Division (SFRD) at the Institute for Defense Analyses (IDA), where he contributes to studies and analyses in support of the Office of the Secretary of Defense, the Joint Staff, the Combatant Commands, and other national security agencies. Mr. Warden's areas of focus include U.S. defense and foreign policy; defense strategy; nuclear weapons and operations; deterrence, escalation, stability, and arms control; space security; technology and the future of warfare; and Asia-Pacific and Korean Peninsula security. He has more than eleven years of experience as a national security analyst and is the author, coauthor, and editor of numerous studies, reports, and articles, including *Limited Nuclear War: The 21st Century Challenge for the United States* (Livermore Papers on Global Security, No. 4, July 2018) and "North Korea's Nuclear Posture: An Evolving Challenge for U.S. Deterrence" (Proliferation Papers, Ifri, March 2017).



Heather Williams

Dr. Heather Williams is a lecturer in the Centre for Science and Security Studies (CSSS) at King's College London. From 2020–2021, Heather was a Stanton Nuclear Security Fellow at MIT. She is also an adjunct research staff member at the Institute for Defense Analyses in Alexandria, Virginia, where she has worked since 2008 on U.S. nuclear policy for the U.S. Department of Defense. Heather currently leads projects on emerging technology and the future of arms control, risks of social media to conflict escalation, and the global nuclear order. Her research is supported by the MacArthur Foundation, Carnegie Corporation of New York, U.S. Department of Defense, and U.S. Department of Energy. From 2018 to 2019, Dr. Williams served as a specialist advisor to the House of Lords International Relations Committee inquiry into the Nuclear Non-Proliferation Treaty and Disarmament, and until January 2015 she was a research fellow on nuclear weapons policy at Chatham House. Heather completed her Ph.D. in the Department of War Studies at King's College London, and she has a B.A. in international relations and Russian studies from Boston University and an M.A. in security policy studies from The George Washington University. Her most recent publications include "UK Nuclear Weapons: Beyond the Numbers" in *War on the Rocks* (April 2021), "The Unavoidable Technology: How Artificial Intelligence Can Strengthen Strategic Stability" in *The Washington Quarterly* (with Jessica Cox, March 2021), and "Asymmetric arms control and strategic stability: Scenarios for limiting hypersonic glide vehicles" in *Journal of Strategic Studies* (autumn 2019).