PONI 2015 WINTER CONFERENCE

Center for Strategic and International Studies
1616 Rhode Island Ave., NW
Washington, DC 20036

Day One: Wednesday, December 9

8:30  CONFERENCE CHECK-IN AND BREAKFAST

9:00  CONFERENCE WELCOME
Rebecca Hersman, Director, Project on Nuclear Issues and Senior Adviser, International Security Program, Center for Strategic and International Studies

9:10  PANEL 1: U.S. NUCLEAR POLICY AND POSTURE IN THE FACE OF MODERNIZATION AND SEQUESTRATION
Moderator: Todd Harrison, Director, Defense Budget Analysis and Senior Fellow, International Security Program, Center for Strategic and International Studies

Nuclear Weapons Modernization: Thinking about the Unthinkable
Michaela Dodge, Senior Policy Analyst, Defense and Strategic Policy, The Heritage Foundation

America’s Strategic Nuclear Force Structure in the 21st Century: Operational and Deterrence Impacts of Re-Phasing Current Modernization Plans
Marc Quint, Post Master’s Research Associate, Pacific Northwest National Laboratory

Balancing Deterrence
Katherine Blakeley, Policy Analyst, National Security and International Policy, Center for American Progress

Dime Store Deterrence: Getting What You Pay For
Evan Thompson, Research Associate, Octant Associates, LLC

10:40  BREAK

11:00  PANEL 2: NON-STATE ACTORS
Moderator: Jane Vaynman, Associate Director, Institute for Security and Conflict Studies, and Research Instructor, Elliott School of International Affairs, George Washington University

Rethinking the Proliferation Paradigm
Sarah Laderman, MS/MPP Candidate, University of California, Berkeley, and Fellow, Nuclear Science and Security Consortium
The Wild Wild East: Nuclear Trafficking and the ‘Lawless Land’ of Eastern Europe and the Russian Caucasus
Ross Hagan, Master’s Candidate in Applied Intelligence, Mercyhurst University

Apocalypse Now? Rethinking Nuclear Terror in the Age of ISIS
Minsu Crowder-Han, Graduate Student, Georgetown University

12:30 LUNCH

1:15 KEYNOTE ADDRESS
Tom Countryman, Assistant Secretary, Bureau of International Security and Nonproliferation, Department of State

2:45 BREAK

3:00 Panel 3: ESCALATION DYNAMICS
Moderator: Rebecca Hersman, Director, Project on Nuclear Issues and Senior Adviser, International Security Program, Center for Strategic and International Studies

Managing Escalation in Conventional Conflicts with Nuclear-Armed Adversaries
Vincent Manzo, Policy Analyst, Office of the Under Secretary of Defense for Nuclear and Missile Defense Policy, Department of Defense

Early Warning? Forecasting Escalation Patterns in South Asian Nuclear Crises
Hannah Haegeland, Scoville Peace Fellow, Stimson Center

Miscalculation Scare: Why ASBM and CPGS Weapons Will Not Increase Nuclear Escalation Risk
Kang Jiang, PhD Candidate, King’s College

4:30 RECEPTION

5:30 DINNER & DISCUSSION ON THE HEALTH OF THE NUCLEAR ENTERPRISE
Moderator: Madelyn Creedon, Principal Deputy Administrator, National Nuclear Security Administration

LT Casey Murphy, OPNAV N514, Navy Nuclear Weapons Policy

Major Matt Hudson, Deputy Chief, ICBM Force Development Branch, Strategic Deterrence & Nuclear Integration, Headquarters of the Air Force

Jordan Arnswald, Physical Scientist, Los Alamos National Laboratory

Captain Ashley Green, Nuclear Forensics Scientist, United States Air Force
Day Two: Thursday, December 10

8:00  END OF DAY ONE

8:30  CONFERENCE CHECK-IN AND BREAKFAST

9:00  PANEL 4: PERSPECTIVES ON EUROPE AND RUSSIA
Panel Moderator: Frank Miller, Former Special Assistant to the President and CSIS Senior Adviser

Making the Case for Preserving the INF Treaty - A European Perspective
Anna Peczeli, Research Fellow, Center for Strategic and Defense Studies

Whither Goes the Transatlantic Security Partnership?
Selim Sazak, Researcher, Foreign Policy Program, The Century Foundation
Lauren Sukin, Student, Political Science, Brown University

Emerging Security Alliances Challenging the Status Quo and U.S. Foreign Policy Towards Russia
Sofie Roehrig, Student, International Relations, George Washington University

Russian Perspective on Strategic Non-Nuclear Deterrence
Harrison Menke, Wargaming Analyst, SAIC

10:30  BREAK

10:50  PANEL 5: NUCLEAR SECURITY
Panel Moderator: Amy Woolf, Specialist in Nuclear Weapons Policy, Congressional Research Service

Role of New Scientific Approaches in Tamper Detection for Nuclear Security
Tessa Pinon, Postdoctoral Scholar, Pennsylvania State University

Nuclear Monitoring in the Post-Cold War Era: Technology to Support Unilateral Actions
Heather Meeks, Program Manager, Defense Threat Reduction Agency

Portal Monitoring Systems for Nuclear Threat Reduction - Looking Inside the Box
Dr. Jonathan Burns, Threat Reduction Physicist, Atomic Weapons Establishment

Exporting Nuclear Safety
Captain Jeffrey Graham, Deputy Lead Project Officer, Nuclear Use Control, Defense Threat Reduction Agency

12:20  LUNCH
12:50 **KEYNOTE ADDRESS**  
Lt Gen Jack Weinstein, Deputy Chief of Staff for Strategic Deterrence & Nuclear Integration  

2:00 **CONCLUSION OF CONFERENCE**
Speakers Biographies

**CONFERENCE WELCOME**

**Rebecca Hersman, Director, Project on Nuclear Issues and Senior Adviser, International Security Program, Center for Strategic and International Studies**

Rebecca Hersman is director of the Project on Nuclear Issues and senior adviser for the International Security Program. Ms. Hersman joined CSIS in April 2015 from the Department of Defense, where she served as deputy assistant secretary of defense for countering weapons of mass destruction (WMD) since 2009. In this capacity, she led DoD policy and strategy to prevent WMD proliferation and use, reduce and eliminate WMD risks and respond to WMD dangers. Ms. Hersman was a key leader on issues ranging from the nuclear security summit to the elimination of Syria’s chemical weapons to the global health security agenda. She served as DoD’s principal policy advocate on issues pertaining to the Biological Weapons Convention, Chemical Weapons Convention, Nuclear Non-Proliferation Treaty and Cooperative Threat Reduction Program. Prior to joining the Department of Defense, Ms. Hersman was a senior research fellow with the Center for the Study of Weapons of Mass Destruction at the National Defense University from 1998-2009. Her primary projects focused on the role of the Department of Defense in mitigating the effects of chemical and biological weapons attack, concepts and strategies for eliminating an adversary’s WMD programs, as well as proliferation issues facing the United States. Ms. Hersman also founded and directed the WMD Center’s Program for Emerging Leaders, an initiative designed to shape and support the next generation of leaders from across the U.S. government with interest in countering weapons of mass destruction. Ms. Hersman previously held positions as an international affairs fellow at the Council on Foreign Relations, a special assistant to the undersecretary of defense for policy, and a member of the House Armed Services Committee professional staff. She holds an M.A. in Arab Studies from Georgetown University and a B.A. from Duke University.

**PANEL 1: U.S. NUCLEAR POLICY AND POSTURE IN THE FACE OF MODERNIZATION AND SEQUESTRATION**

**Moderator: Todd Harrison, Director, Defense Budget Analysis and Senior Fellow, International Security Program, Center for Strategic and International Studies**

Todd Harrison is the director of defense budget analysis and a senior fellow in the International Security Program at CSIS. He leads the Center’s efforts to provide in-depth, nonpartisan research and analysis of defense funding issues. He also provides expert analysis on space security and other key national security issues. Mr. Harrison joined CSIS from the Center for Strategic and Budgetary Assessments, where he was a senior fellow for defense budget studies. He has authored a number of publications on trends in the overall defense budget, defense acquisitions, military compensation, military readiness, cost of nuclear forces, military space systems, and cost of the wars in Iraq and Afghanistan. He frequently contributes to print and
broadcast media and has appeared on CNBC, CNN, NPR, Al Jazeera English, and Fox News. He has been a guest lecturer for a number of organizations and teaches a class on the defense budget at George Washington University’s Elliot School of International Affairs and a class on military space systems at Johns Hopkins University's School of Advanced International Studies. He is a term member of the Council on Foreign Relations and was named one of the Defense News 100 Most Influential People in U.S. Defense. Mr. Harrison previously worked at Booz Allen Hamilton, where he supported clients across the Department of Defense, assessing challenges to modernization initiatives and evaluating the performance of acquisition programs. Prior to Booz Allen, he worked in the aerospace industry developing advanced space systems and technologies and served as a captain in the U.S. Air Force Reserves. He is a graduate of the Massachusetts Institute of Technology with both a B.S. and an M.S. in aeronautics and astronautics.

**Michaela Dodge, Senior Policy Analyst, Defense and Strategic Policy, The Heritage Foundation**

Michaela Dodge specializes in missile defense, nuclear weapons modernization and arms control as policy analyst for defense and strategic policy in The Heritage Foundation’s Allison Center for Foreign Policy Studies. Dodge has authored and co-authored research papers and commentary for Heritage as well as contributed defense and national security posts to the think tank’s policy blog, The Foundry. Her work has appeared in newspapers such as The Washington Times and online venues such as FoxNews.com and The Daily Caller. Dodge holds a Master of Science degree in defense and strategic studies from Missouri State University, where she was awarded the Ulrike Schumacher Memorial Scholarship for two years. She received a bachelor’s degree in international relations and defense and strategic studies from Masaryk University, Czech Republic. She is a former National Security Fellow with the Foundation for the Defense of Democracies and a former Publius Fellow at the Claremont Institute in addition to being a former Center for Strategic and International Studies PONI Nuclear Scholars Initiative scholar.

**Marc Quint, Post Master’s Research Associate, Pacific Northwest National Laboratory**

Marc Quint supports several programs at PNNL pertaining to export controls, regulatory compliance, risk analysis, nuclear safeguards, and nuclear & dual-use industry engagement. Previously, Mr. Quint was a Graduate Research Assistant at the James Martin Center for Nonproliferation Studies (CNS) in Monterey, California, where he focused on U.S. nuclear weapons modernization and export controls & sanctions relating to the Iranian nuclear program. Mr. Quint earned a Master of Arts degree in Nonproliferation and Terrorism Studies from the Middlebury Institute of International Studies at Monterey, formerly the Monterey Institute (MIIS). He earned a Bachelor of Arts degree in International Studies from the Henry M. Jackson School of International Studies at the University of Washington.

**Katherine Blakeley, Policy Analyst, National Security and International Policy, Center for American Progress**

Katherine Blakeley is a Policy Analyst with the National Security and International Policy team, focusing on the defense budget and defense policy issues. Prior to joining American Progress, Katherine was a defense analyst at the Congressional Research Service, working on defense appropriations, defense budget, defense health care, and defense energy issues for Congress. Katherine is also a doctoral candidate in political science.
at the University of California, Santa Cruz, where her dissertation focuses on congressional defense policymaking. She received her bachelor’s degree from Vassar College.

**Evan Thompson, Research Associate, Octant Associates, LLC**

Evan Thompson is a Research Associate with Octant Associates, LLC, where he conducts research on global and regional proliferation trends in the nuclear, missile, and chemical areas. He graduated with a B.A. in International Affairs from the University of Georgia and an M.A. in Security Studies from Georgetown University.

**PANEL 2: NON-STATE ACTORS**

**Moderator: Jane Vaynman, Associate Director, Institute for Security and Conflict Studies and Research Instructor, Elliott School of International Affairs, George Washington University**

Jane Vaynman is the Associate Director of the Institute for Security and Conflict Studies and Research Instructor at the Elliott School of International Affairs. She received her Ph.D. in Government from Harvard University. Her research focuses on security cooperation between adversarial states, the design of arms control agreements, and the nuclear nonproliferation regime. Jane is the co-founder of the Nuclear Studies Research Initiative, a project that promotes intellectual exchange and cross-fertilization for emerging nuclear research in history and political science. Previously, she was a Stanton Nuclear Security Fellow at the Council on Foreign Relations. She has also held positions with the Bureau of Arms Control, Verification, and Compliance at the U.S. Department of State and at the Carnegie Endowment for International Peace. She has also conducted research in Russia through a Fulbright. Jane received her B.A. in International Relations from Stanford University with honors in security studies from the Center for International Security and Cooperation.

**Sarah Laderman, MS/MPP Candidate, University of California, Berkeley, and Fellow, Nuclear Science and Security Consortium**

Sarah Laderman is a first year graduate student at UC Berkeley pursuing an MS in Nuclear Engineering and a Master's of Public Policy. She received her BS in Nuclear Science and Engineering and Political Science from MIT in 2012. Between schools, Sarah was working as a contractor in the Pentagon for the Deputy Assistant Secretary of Defense for Nuclear Matters, where she worked on nuclear stockpile management, coordination of weapon modernization programs, and nuclear survivability of DoD systems. Under her current fellowship with the Nuclear Science and Security Consortium, Sarah is researching topics of interest at the nexus of nuclear weapons technology and policy.

**Ross Hagan, Master’s Candidate in Applied Intelligence, Mercyhurst University**

Ross Hagan is a first-year graduate candidate enrolled at Mercyhurst University’s Tom Ridge School for Intelligence and Information Science pursuing a M.S. in Applied Intelligence. His interest in the nuclear field
began through an undergraduate nuclear security course that included a trip to Oak Ridge National Laboratory, pairing well with his interests in both terrorism and intelligence. Originally from North Carolina, Hagan received his B.A. in 2015 from the University of North Carolina at Chapel Hill with a double major in History and Peace, War, and Defense.

**Minsu Crowder-Han, Graduate Student, Georgetown University**

Minsu Crowder-Han is a recent graduate of Georgetown University’s Security Studies Program, where she completed her second Master’s degree, focusing primarily on terrorism, terrorist ideologies, recruitment and radicalization, and Iranian security issues. While at Georgetown, she worked as a research assistant and wrote her thesis on Iran’s sponsorship of terrorism. Prior to attending Georgetown University, Minsu worked in the International Atomic Energy Agency’s Division of Nuclear Security, where her work focused on the development of metrics for the analysis and assessment of nuclear security, the illicit trafficking of nuclear and other radioactive material, and nuclear forensics. Minsu also holds a Master’s degree from King’s College London’s War Studies department, where she studied nuclear security and nonproliferation. She wrote her first Master’s thesis on the proliferation sensitivity of pyroprocessing.

**KEYNOTE ADDRESS**

**Tom Countryman, Assistant Secretary, Bureau of International Security and Nonproliferation, Department of State**

Thomas Countryman, a career member of the Senior Foreign Service, is currently serving as the Assistant Secretary for International Security and Nonproliferation. Mr. Countryman began his State Department career in 1982, serving as a consular and political officer in Belgrade, Yugoslavia from 1983 to 1985. From 1985 to 1988, he worked in the Department's Office of Eastern European and Yugoslav Affairs. From 1988 to 1990, Mr. Countryman studied Arabic language and culture in the U.S. and Tunisia. During Operations Desert Shield and Desert Storm, he served as the Political-Military Officer at the American Embassy in Cairo, Egypt. From 1991 to 1993, he was the senior officer for reporting on political, security, and religious affairs within Egypt. In 1993 and 1994, Mr. Countryman worked in the State Department's Office of Counter-Terrorism. From 1994-97, he was responsible for advising Ambassador Albright on Middle East affairs at the U.S. Mission to the United Nations, and served as liaison with the UN Special Commission investigating Iraq's weapons programs. From 1997 to 1998, Mr. Countryman served as Director for Near East and South Asian Affairs at the National Security Council, with responsibility for the region stretching from Morocco to Syria. As part of his position at the NSC, he served as the White House representative on Ambassador Dennis Ross' peace process team. From 1999 to 2001, Mr. Countryman was Director of the Office of South Central European Affairs in the Department of State, where he focused on working with the democratic opposition in Serbia. From 2001 to 2005, he was the Minister-Counselor for Political Affairs at the American Embassy in Rome, Italy. After a short assignment as Director of the Office of United Nations Political Affairs in the
Department, he served as Deputy Chief of Mission at the US Embassy in Athens, Greece from 2005 to 2008. In 2008-9, he was the Foreign Policy Advisor to General James Conway, the Commandant of the US Marine Corps. He served as the Principal Deputy Assistant Secretary for Political-Military Affairs in 2009-10, and as Deputy Assistant Secretary for European Affairs in 2010-11. Mr. Countryman graduated from Washington University in St. Louis with a degree in economics and political science, and studied at the Kennedy School of Government at Harvard University.

**PANEL 3: ESCALATION DYNAMICS**

**Moderator:** Rebecca Hersman, Director, Project on Nuclear Issues and Senior Adviser, International Security Program, Center for Strategic and International Studies

**Vincent Manzo, Policy Analyst, Office of the Under Secretary of Defense for Nuclear and Missile Defense Policy, Department of Defense**


**Hannah Haegeland, Scoville Peace Fellow, Stimson Center**

Haegeland is a Herbert Scoville Jr. Peace Fellow in the Stimson Center’s South Asia program working on nuclear security, crisis management, and regional politics. Prior to joining Stimson, she interned for the National Bureau of Asian Research, working on their *Strategic Asia* and *Asia Policy* publications. During her graduate studies, Haegeland was a Fulbright Scholar, Boren Fellow, and Foreign Language and Area Studies Academic Year and Summer Urdu and Hindi Fellow. She has a M.A.I.S. in South Asian Studies from the Henry M. Jackson School of International Studies, University of Washington, and a B.A. in History and English Literature from Concordia College, Moorhead.

**Kang Jiang, PhD Candidate, King’s College**
Kang Jiang holds an MA with Distinction in Non-Proliferation and International Security (2011) from King’s College London, and a BA in English (2009) from Guangxi University, China. He is currently working on his PhD on nonnuclear strategic weapons and Sino-American strategic stability. His research areas include deterrence and escalation dynamics, nuclear weapon policy and missile defense issues.

**HEALTH OF THE NUCLEAR ENTERPRISE DISCUSSION**

**Moderator: Madelyn Creedon, Principal Deputy Administrator, National Nuclear Security Administration**

Madelyn Creedon was confirmed by the Senate on Wednesday, July 23, 2014, as the Department of Energy’s (DOE) Principal Deputy Administrator for the National Nuclear Security Administration (NNSA). As NNSA’s Principal Deputy Administrator, Ms. Creedon will support NNSA Administrator Frank Klotz in the management and operation of the NNSA, as well as policy matters across the DOE and NNSA enterprise in support of President Obama’s nuclear security agenda. Prior to her Senate confirmation, Ms. Creedon served as the Assistant Secretary of Defense for Global Strategic Affairs at the Department of Defense (DoD), overseeing policy development and execution in the areas of countering Weapons of Mass Destruction, U.S. nuclear forces and missile defense, and DoD cybersecurity and space issues. She was confirmed to serve in this position by the Senate in August 2011. Previously, Ms. Creedon was counsel for the Democratic staff on the Senate Committee on Armed Services and was the staff lead for the Subcommittee on Strategic Forces as well as threat reduction and nuclear nonproliferation issues. In 2000, she left the Armed Services Committee to become the Deputy Administrator for Defense Programs at the NNSA, and returned to the Committee in January 2001. Prior to joining the Armed Services Committee staff in March 1997, she was the Associate Deputy Secretary of Energy for National Security Programs at the DOE, beginning in October 1995.

Ms. Creedon is a graduate of St. Louis University School of Law. Her undergraduate degree is in political science from the University of Evansville, Evansville, Indiana.

**LT Casey Murphy, OPNAV N514, Navy Nuclear Weapons Policy**

LT Casey Murphy was born and raised in Atlanta, GA. He graduated in 2008 with a Bachelor’s of Science in Mathematics from the University of Georgia. After two years working in the civilian sector, he joined the Navy through the NUPOC program, commissioning in July of 2010 at Officer Candidate School. For the next two years, LT Murphy navigated the nuclear training pipeline, attending Nuclear Power School in Charleston, SC, Submarine Officer Basic Course in Groton, CT, and finishing up at the S8G Prototype in Saratoga Springs, NY. In May 2012, LT Murphy checked in aboard the USS TENNESSEE (SSBN 734) on the Gold Crew. While on the USS TENNESSEE, LT Murphy rotated through various Division Officer roles while working to earn his qualification in submarines. As Main Propulsion Assistant and Tactical Systems Officer, LT Murphy helped lead the USS TENNESSEE to two successful Operational Reactor Safeguards Exams and two successful Tactical Readiness Exams, with the boat earning an Average on each. As the senior Junior Officer aboard USS TENNESSEE, LT Murphy was selected to pilot the Operational Safety Officer (OSO) program, where he was able to utilize fleet lessons learned to assist heavily in developing operational plans. He successfully wrote the instruction, developed the program, and provided vital feedback to the fleet.
regarding the OSO program. After completing his JO tour, LT Murphy reported to the Pentagon to work on
the OPNAV staff in the Navy Nuclear Weapons and Arms Control Policy branch. He gained experience doing
staff work on New START, Intermediate Range Nuclear Forces and Open Skies treaties working across
several agencies to include the State Department, the Intelligence Community, the Department of Energy, and
the Air Force.

**Major Matt Hudson, Deputy Chief, ICBM Force Development Branch, Strategic Deterrence &
Nuclear Integration, Headquarters of the Air Force**

Major Hudson is Deputy Chief, ICBM Force Development Branch, Strategic Deterrence & Nuclear
Integration, Headquarters Air Force (HAF) Pentagon, Washington DC. He is responsible for the force
development of over 1,300 nuclear and missile operations officers providing the operational excellence and
subject matter expertise required for the nation’s Intercontinental Ballistic Missile (ICBM) strategic
deterrence force. Major Hudson enlisted in the Air Force in 1995 and served as an Aerospace Ground
Equipment Technician in the 437th Airlift Wing. Major Hudson received his commission through the Air
Force ROTC program at Charleston Southern University in 2003. Following ICBM Initial Qualification
Training, Major Hudson was certified for Missile Combat Crew Duty and served in numerous positions
within the 90th Operations Group to include Crew Commander, Evaluator, Senior Standardization/Evaluation
Crew Commander, Assistant Flight Commander and Emergency War Orders Planner. Major Hudson served
as Chief of TF-214’s ICBM Targeting Section in the 625th Strategic Operations Squadron where he was
responsible for all ICBM targeting operations followed by a tour in USSTRATCOM JFCC Global Strike
where he was responsible for translating Presidential guidance into operational concepts for development and
employment of the nation’s nuclear ballistic missile war plan. Preceding his current assignment, Maj Hudson
was a student at Air Command and Staff College.

**Jordan Arnswald, Physical Scientist, Los Alamos National Laboratory**

Jordan Arnswald currently works as a physical scientist for the Department of Energy/National Nuclear
Security Administration at the Los Alamos Field Office. She began working in this field as a NNSA Graduate
Program Fellow, where she gained a broad understanding of the nuclear enterprise and federal budget
process. She has a MA in National Security Studies, BS in Biology, and is currently pursuing a PhD in Public
Safety with an emphasis on Emergency Management.

**Captain Ashley Green, Nuclear Forensics Scientist, United States Air Force**

Capt Ashley Green graduated from the United States Air Force Academy in 2011 with a B.S. in Physics. Her
first assignment was at the Air Force Technical Applications Center (AFTAC) at Patrick Air Force Base
(AF B) in Florida. AFTAC’s mission is to provide nuclear treaty monitoring. Capt Green worked in the
Atmosphere on Space Directorate as a space systems analyst. Capt Green then attended the Air Force Institute
of Technology (AFIT) at Wright-Patterson AFB in Ohio where she received her M.S. in Nuclear Engineering.
Capt Green’s current assignment is at the Air Force Research Laboratory (AFRL) at Kirtland AFB New
Mexico where she is deputy program manager for the Nuclear Explosion Monitoring Program. The program
is in charge of research efforts for seismic monitoring of nuclear explosions.
**Panel 4: Perspectives on Europe and Russia**

**Moderator: Frank Miller, Former Special Assistant to the President and CSIS Senior**

Frank Miller served 31 years in the US government. After 3 years in the Navy and 2 years at the State Department, he joined OSD Policy in 1979 and served there until January 2001 rising from action officer to Principal Deputy Assistant Secretary and Acting Assistant Secretary. He has also served as the chair of NATO’s nuclear policy from 1997 – 2001. From October 1981 through January 2001 he was the senior OSD official directly responsible for US nuclear policy. He served from January 2001 to March 2005 as a special assistant to President George W. Bush and as senior director for defense policy and arms control on the National Security Council staff. During his career, Miller had unusual influence on the evolution of national deterrence and nuclear targeting policy, as well as on the START 1 and START 2 treaties, and he was instrumental in forging important new nuclear policy relationships with the United Kingdom. He is currently a principal at the Scowcroft Group and a Senior Adviser at CSIS.

**Anna Peczeli, Research Fellow, Center for Strategic and Defense Studies**

Anna Peczeli recently finished her PhD studies at Corvinus University of Budapest. Her thesis focused on the Obama administration’s nuclear strategy and examined to what extent the legacies of the Cold War still define U.S. nuclear posture and planning. Peczeli currently works as an assistant lecturer at Corvinus University of Budapest, and as a research fellow at the Center for Strategic and Defense Studies at the National University of Public Service. During her PhD studies, she was an adjunct fellow at the former Hungarian Institute of International Affairs for over two years, she spent a 3-month visiting research fellowship at the Peace Research Institute Frankfurt (Germany), and she also has held a 7-month Fulbright fellowship at the Nuclear Information Project of the Federation of American Scientists in Washington, DC. Besides, she has participated in several workshops, trainings and research projects on nuclear arms control, and she is a member of the G7 Berlin Group – International Coalition for CBRN Security Culture; the European Defence and Security Network (sponsored by the European Parliament); the CSIS Project on Nuclear Issues (PONI); the EU Non-Proliferation and Disarmament Consortium; and chair of the Executive Board of the International Student/Young Pugwash (ISYP) group.

**Selim Sazak, Researcher, Foreign Policy Program, The Century Foundation**

Selim Can Sazak was a Middle East policy intern at The Century Foundation in 2015. Selim is a Fulbright scholar studying at Columbia University’s School of International and Public Affairs. His interests are in security policy, arms control and nuclear nonproliferation, non-state political violence with a focus on the Middle East. He has previously worked as the assistant to the Secretary-General of Pugwash Conferences on Science and World Affairs, laureate of the 1995 Nobel Peace Prize and at NATO’s Defense Against Terrorism Center.

**Lauren Sukin, Student, Political Science, Brown University**
Lauren Sukin is a senior-year student studying Political Science and Literary Arts at Brown University. Her work has been published by The Century Foundation, Bulletin of Atomic Scientists, The National Interest, and American Nuclear Society, among others.

**Sofie Roehrig, Student, International Relations, George Washington University**

Sofie Roehrig is a German national who is anticipated to graduate in July 2016 with a liberal arts B.A. in International Relations from the University College Maastricht at Maastricht University (Netherlands). Her concentration is the nexus between international security and international law. Currently, she is spending her semester abroad at the Elliott School of International Affairs of the George Washington University. She co-organised the Global Order Conference on Pragmatism and Justice at Maastricht University and is a correspondent of the online student publication on International Affairs of the University of Southern California called Glimpse from the Globe. Her research paper on EU policies was published by the Oxford Monitor of Forced Migration in December 2015 (Vol. 5, No. 2).

**Harrison Menke, Wargaming Analyst, SAIC**

Harrison Menke is currently a wargaming analyst at SAIC and a recent graduate of Missouri State Defense and Strategic Studies program headed by Dr. Keith Payne. Harrison's studies focused on nuclear deterrence and Russian nuclear strategy. His thesis examined Russian nuclear posture with regard to Europe and earned Thesis with Distinction honors. Harrison's writings have appeared in US News & World Report, Defense News, and the Missile Defense Review. His views are his own and do not represent those of organizations' he is affiliated with.

**PANEL 5: NUCLEAR SECURITY**

**Moderator: Amy Woolf, Specialist in Nuclear Weapons Policy, Congressional Research Service**

Amy F. Woolf is a Specialist in Nuclear Weapons Policy in the Foreign Affairs, Defense, and Trade Division of the Congressional Research Service at the Library of Congress. She provides Congress with information, analysis, and support on issues related to U.S. and Russian nuclear forces and arms control. She has authored many studies and participated in numerous seminars on these issues, addressing such topics as nuclear weapons strategy and doctrine, nuclear force structure, strategic arms control and the U.S-Russian arms control agenda, ballistic missile defense policy, and issues related to nuclear weapons and threat reduction in the former Soviet Union. Ms. Woolf received a Masters in Public Policy from the Kennedy School of Government at Harvard University and a BA in Political Science from Stanford University.

**Tessa Pinon, Postdoctoral Scholar, Pennsylvania State University**

Dr. Tessa Piñon is currently a Postdoctoral Scholar with the U.S. Department of Defense University Strategic Partnership program between the Pennsylvania State University and the Defense Threat Reduction Agency
(DTRA). She supports DTRA basic research initiatives and assists with identifying new scientific trends relevant to combating CBRN threats. Prior to her work at DTRA, she was a Postdoctoral Researcher in the Physics Department at the University of Texas at El Paso leading a new research effort in designing and constructing a laser-based super-resolution microscopy system for biomedical imaging. As a doctoral student at the University of California, Merced, she constructed an optical trapping system for studying the mechanical responses of lipid vesicles to optical forces. This project has relevance for surveying the mechanical responses of soft biomaterials in a non-contact fashion. Dr. Piñon enjoys applying her multidisciplinary background in bioengineering and applied optics for considering innovative approaches for tackling challenges of weapons of mass destruction.

**Heather Meeks, Program Manager, Defense Threat Reduction Agency**

Heather Meeks received a PhD in radiation biology from Texas Tech University. She joined the Defense Threat Reduction Agency, Basic and Applied Sciences Department in 2010. Meeks developed and manages a research portfolio in the life sciences, with a particular focus on development of countermeasures against radiation and use of biological systems for nuclear proliferation monitoring. Presently, countermeasures research involves study of organisms naturally resistant to the effects of ionizing radiation in order to characterize the intracellular environment following irradiation and to identify strategies for mitigating radiation insult. Research in biomonitoring involves manipulation of biological recognition elements, including microbial systems and enzymes, for incorporation into standard detection platforms. Dr. Meeks also chairs an Interagency cross-functional advisory team as part of an overarching effort to develop strategies for future biomonitoring constructs, promote across-government collaboration for R&D efforts that show promise in terms of specific concepts of operation, and identify transition pathways for advanced development.

**Dr. Jonathan Burns, Threat Reduction Physicist, Atomic Weapons Establishment**

After graduating with an MSci degree in physics at Glasgow University, I completed a PhD entitled “Deeply Virtual Compton Scattering off an unpolarised proton target at HERMES” based at the HERMES in Hamburg, Germany. After graduating I spent a year as a post-doctoral researcher at Glasgow and six months as a consultant with the IAEA, investigating airborne radiation detection in response to the Fukushima incident. For the last four years I have been working as a nuclear threat reduction physicist at the UK Atomic Weapons Establishment, developing detectors for portal scanning, with a particular emphasis on muon scattering tomography.

**Captain Jeffrey Graham, Deputy Lead Project Officer, Nuclear Use Control, Defense Threat Reduction Agency**

Captain Jeffrey Graham, United States Air Force, currently works on nuclear surety for the Defense Threat Reduction Agency at Ft Belvoir, VA. He is currently interested in nuclear energy, national energy policy,
nuclear counterproliferation, and strategic studies. He holds a MS in Nuclear Engineering from the Air Force Institute of Technology and a BS in Physics from the California Institute of Technology.

**KEYNOTE ADDRESS**

**Lt Gen Jack Weinstein, Deputy Chief of Staff for Strategic Deterrence & Nuclear Integration**

Lt. Gen. Jack Weinstein is the Deputy Chief of Staff for Strategic Deterrence & Nuclear Integration. Previously he was the Commander, Twentieth Air Force, Air Force Global Strike Command, and Commander, Task Force 214, U.S. Strategic Command, Francis E. Warren Air Force Base, Wyoming. General Weinstein is responsible over 10,200 people for the nation’s intercontinental ballistic missile force, organized into three operational wings. In addition, General Weinstein oversees the 377th Air Base Wing at Kirtland AFB, New Mexico, which provides critical support to the nuclear operation and mission partners. General Weinstein was commissioned through the ROTC program in 1982 and received distinguished graduate honors. He has served as a Minuteman III missile combat crew commander, instructor, evaluator, flight commander, emergency war order instructor and as executive officer to the Commander, 20th Air Force. He also served on the Headquarters Air Combat Command, Air Force Space Command and U.S. Strategic Command staffs. He has commanded at the squadron, group and wing levels. In 2005, he deployed to Southwest Asia as Director of Space Forces for operations Enduring Freedom and Iraqi Freedom. General Weinstein has also served as the Director of Programs, Office of the Deputy Chief of Staff for Strategic Plans and Programs, Headquarters U.S. Air Force. Prior to his current assignment, he was Vice Commander, Air Force Global Strike Command, Barksdale AFB, Louisiana.