

Panel 1

Bruce Goodwin, Lawrence Livermore National Laboratory



Dr. Bruce T. Goodwin is the Associate Director at Large for National Security Policy and Research and the Director of the Center for Global Security Research at Lawrence Livermore National Laboratory. Previously he was the Principal Associate Director for Weapons and Complex Integration at LLNL (2001–2013).

He has been a key contributor to the success of the U.S. nuclear weapons program since 1981, first at Los Alamos National Laboratory and since 1985 at LLNL. He led the process to certify LLNL nuclear weapons and was responsible for establishing priorities, developing strategies, and designing and maintaining LLNL's nuclear weapons. For 12 years, he was responsible for leading the Stockpile Stewardship Program at LLNL and was instrumental in developing the Quantification of Margins and Uncertainties methodology for sustaining the nation's nuclear deterrent without nuclear testing. He also led the development of innovative reuse methods to extend stockpile lifetimes and streamline manufacturing and championed cutting-edge high-performance computing for national security and competitiveness.

Goodwin received the Department of Energy's E. O. Lawrence Award for innovative weapons science for demonstrating that plutonium behaves in a fundamentally different way than previously thought, a finding that is now the basis for understanding weapons performance.

Goodwin received his doctorate in aerospace engineering from the University of Illinois. He is a recipient of many awards and author of numerous technical and policy papers. As one of the world's leading theoretical experts in plutonium and implosion dynamics, he often presents weapons physics to the community, officials, and members of Congress.

Henry Sokolski, Nonproliferation Policy Education Center



Henry Sokolski is the Executive Director of the Nonproliferation Policy Education Center (NPEC), a Washington, D.C.-based nonprofit organization founded in 1994 to promote a better understanding of strategic weapons proliferation issues among policy-makers, scholars and the media. He currently serves as an adjunct professor at the Institute of World Politics in Washington, D.C.

He previously served in the Pentagon (1989-1993) as Deputy for Nonproliferation Policy and received a medal for outstanding public service from Secretary of Defense Dick Cheney. He also worked in the Office of the Secretary of Defense's Office of Net Assessment, as a consultant to the National Intelligence Council, and as a member of the Central Intelligence Agency's Senior Advisory Group. In the U.S. Senate, Mr. Sokolski served as a special assistant on nuclear energy matters to Senator Gordon Humphrey (R-NH), and as a legislative military aide to Senate Armed Service Committee member Dan Quayle (R-IN).

In 2008, Congress appointed him to serve a two-year term as a member of the Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism. Congress previously appointed

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him in 1999 to serve on the Deutch WMD Proliferation Commission. Mr. Sokolski has authored and edited a number of works on proliferation, including *Underestimated: Our Not So Peaceful Nuclear Future* (2015); *Best of Intentions: America's Campaign Against Strategic Weapons Proliferation* (2001); *Nuclear Weapons Security Crises: What Does History Teach?* (2013), *The Next Arms Race* (2012), *Nuclear Power's Global Expansion: Weighing its Costs and Risks* (2010); *Nuclear Heuristics: Selected Writings of Albert and Roberta Wohlstetter* (2009); *Falling Behind: International Scrutiny of the Peaceful Atom* (2008); *Getting Ready for a Nuclear-Ready Iran* (2005); and *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice* (2004).

Panel 2

Victor Gilinsky, Nonproliferation Policy Education Center



Victor Gilinsky is an independent consultant primarily on matters related to nuclear energy. He was a two-term commissioner of the U.S. Nuclear Regulatory Commission from 1975-1984, and before that Head of the Rand Corporation Physical Sciences Department. He holds a Bachelors of Engineering Physics degree from Cornell University and a PhD in Physics from the California Institute of Technology, which gave him its Distinguished Alumni Award. He is a member of the American Physical Society and the Institute of Electrical and Electronics Engineers.

Frank von Hippel, Princeton University



Frank von Hippel, a nuclear physicist, is a Senior Research Physicist and Professor of Public and International Affairs emeritus at Princeton University where, in 1975, he co-founded what is now Princeton's Program on Science and Global Security and, in 1989, the journal *Science & Global Security*.

He has worked on policy proposals relating to the control of plutonium and highly enriched uranium (HEU) for more than three decades, including initiatives to end: the production of plutonium and highly-enriched uranium for weapons (the proposed Fissile Material Cutoff Treaty); the use of highly enriched uranium as a reactor fuel (the U.S. Global Threat Reduction Initiative); and plutonium separation from spent nuclear fuel (the U.S. decision in 1977 to abandon reprocessing).

Von Hippel co-founded the non-governmental International Panel on Fissile Materials, which includes experts from 18 countries and develops proposals for initiatives to reduce global stocks of plutonium and HEU and the numbers of locations where they can be found.

During 1993-4, he served as Assistant Director for National Security in the White House Office of Science and Technology Policy and played a major role in developing what is now called the International Nuclear Materials Protection and Cooperation Program.

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In 2010, he was awarded the American Physical Society's Leo Szilard Award for his "outstanding work and leadership in using physics to illuminate public policy in the areas of nuclear arms control and nonproliferation, nuclear energy, and energy efficiency."