



**Stephen M. Younger**

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Stephen M. Younger is the president of National Security Technologies, LLC, the manager and operator of the Nevada Test Site and satellite research facilities in California, New Mexico, Nevada and Washington, D.C. He is also a Senior Policy Scholar at the Woodrow Wilson International Center for Scholars in Washington, DC, an adjunct faculty member at the University of New Mexico, and a Special Advisor to the Vice Chancellor for Research and Graduate Education at the University of Hawai'i Manoa.

From 2001 to 2004, Younger was the director of the Defense Threat Reduction Agency, a component of the U.S. Department of Defense whose mission is to reduce the threat of weapons of mass destruction. In this capacity, he led an organization of more than 2,000 people with a budget over \$2 billion, and supervised activities including arms control inspections, cooperative threat reduction, new weapons development, chemical and biological defense programs, and operations in Iraq. During this period he developed a new model for multi-agent simulation and published several papers on applications to normative behavior in egalitarian societies.

Prior to government service, Younger was senior associate director for national security at the Los Alamos National Laboratory. He was responsible for assuring the safety and reliability of most of America's nuclear deterrent, and managed a wide array of capabilities and facilities ranging from basic research to manufacturing. Younger was a driving force in the development of a new approach to strategic forces and deterrence in the post Cold War era and was a leading advocate of reductions in the nuclear arsenal.

Younger held senior management positions at Los Alamos from 1989 to 2001, and led technical projects in lasers, pulsed power and other technologies. He was the founder and first director of the Center for International Security Affairs at Los Alamos and took a leading role in opening the Russian nuclear weapons institutes for international collaboration. His research during this period included the use of large lasers and pulsed power facilities to study various processes in high energy density physics. He also developed a new computer code for the study of quantum molecular dynamics with an emphasis on dense helium.

From 1982 to 1989, Younger was a nuclear weapons designer at Lawrence Livermore National Laboratory in Livermore, Calif., where he developed and oversaw the testing of several new concepts in nuclear explosives. He previously served as computational atomic theorist at the National Bureau of Standards in Gaithersburg, Md. He published extensively in atomic scattering physics and identified a new class of giant resonances in the electron impact ionization of heavy atoms and ions.

In recent research, Younger has developed a family of social simulation computer codes that model normative behaviors such as reciprocity, tolerance, leadership, and violence in small societies. This has led to a systematic study of the conditions and mechanisms for peace in pre-contact Oceanic societies and other topics in historical anthropology.

Stephen Younger earned his bachelor's degree in physics from The Catholic University of America in Washington, D.C., in 1973; a master's degree in physics from the University of Maryland in College Park, Md., in 1975; and a doctorate degree in physics from the University of Maryland in 1978. He has published more than 70 papers in theoretical physics, social simulation, anthropology, and public policy. His book *Endangered Species: How We Can Avoid Mass Destruction and Build a Lasting Peace* (Harper Collins, 2007) looks across the full spectrum of human violence and offers practical suggestions for its suppression. His most recent book, *The Bomb: A New History* (Harper Collins, 2009), offers a concise but comprehensive overview of the history and future of nuclear weapons. Stephen Younger is a Fellow of the American Physical Society, recipient of the Secretary of Defense Award for Outstanding Public Service, a member of Threat Reduction Advisory Committee and a member of the Board of Advisors of the School of Philosophy of the Catholic University of America. He serves on various government panels and review committees.

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