

CURRICULUM VITAE

ALBERT CARNESALE

Chancellor Emeritus and Professor
University of California, Los Angeles
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CURRENT POSITIONS

July 1, 2006 - University of California, Los Angeles, Chancellor Emeritus and Professor
Present Holds professorial appointments in UCLA's School of Public Affairs and Henry Samueli School of Engineering and Applied Science. Holds an affiliate faculty appointment in UCLA Institute of the Environment.

PREVIOUS POSITIONS

July 1, 1997 - University of California, Los Angeles, Chancellor
June 30, 2006 As Chief Executive Officer of UCLA, led a leading research university community comprising more than 38,000 students and 27,000 faculty and staff in the College of Letters and Science, 11 professional schools, the UCLA Medical Center, and the largest university-based continuing education program in the world. Was responsible for all aspects of the University's mission of education, research, and service; managed an enterprise with an annual budget of \$4 billion; and served as principal spokesman for the University.

Oct. 1, 1974 - Harvard University
June 30, 1997 Provost of the University (July 1, 1994 – June 30, 1997)
Served as deputy to the President of the University. Oversaw academic and administrative programs that extended beyond one of the University's schools. Coordinated work of Harvard's central administration, supervised information technology activities, and represented the University in external affairs and development.

Dean, John F. Kennedy School of Government. (Nov. 20, 1991 – Dec. 16, 1995)
Served as principal academic and administrative officer of the School. Directed the activities of 100 faculty members, 70 research staff, and 350 administrative staff. Graduate degree program enrollment exceeded 700, and executive education programs served nearly 1,000 participants annually. Oversaw budget of approximately \$50 million.

Lucius N. Littauer Professor of Public Policy and Administration and Academic Dean (July 1, 1981 – November 19, 1991, John F. Kennedy School of Government (October 1, 1974 – June 30, 1997)
Research and teaching focus on international affairs and security, with emphasis on technological, military, and political issues associated with weapons of mass destruction. As Academic Dean, acted as principal advisor to the Dean on faculty personnel matters and on academic aspects of research and teaching programs. Served from 1974 to 1980 as Associate Director of the School's Center for Science and International Affairs.

- 1972-74 North Carolina State University, Raleigh, North Carolina
 Professor and Head, Division of University Studies, and University Coordinator for Environmental Studies
 Responsible for development and administration of university-wide interdisciplinary programs dealing with contemporary issues and problems. Coordinated teaching, research, and public service activities in energy and environmental issues, and taught and performed research in related subjects.
- 1969-72 U.S. Arms Control and Disarmament Agency, Washington, D.C.
 Chief, Defensive Weapons Systems Division, Science and Technology Bureau
 Responsible for formulation and evaluation of arms control policies and measures, primarily in area of strategic defensive weapons systems. Member of U.S. Delegation to Strategic Arms Limitation Talks (SALT) with the Soviet Union; served as Senior Advisor to the Head of the Delegation.
- 1962-69 North Carolina State University, Raleigh, North Carolina, Department of Nuclear Engineering:
 Instructor (1962-65), Assistant Professor (1965-67), and Associate Professor (1967-69).
 Served as Undergraduate Administrator for the Department, and taught and performed research in nuclear reactor analysis, energy conversion, radiation shielding, analytical and numerical methods, and state planning.
- 1957-62 Martin Marietta Corporation, Baltimore, Maryland
 Senior Engineer, Nuclear Division
 Performed engineering analysis and design of nuclear power systems for terrestrial and space applications.

EDUCATION

B.M.E.	(Mechanical Engineering)	Cooper Union	1957
M. S.	(Mechanical Engineering)	Drexel University	1961
Ph.D.	(Nuclear Engineering)	North Carolina State University	1966

HONORS AND AWARDS (SELECTED)

Pardee RAND Graduate School	Doctor of Public Policy (Honorary) 2010
North Carolina State University	D.H.L. (Honorary) 1997
Drexel University	LL.D. (Honorary) 1993
New Jersey Institute of Technology	Sc.D. (Honorary) 1984
Harvard University	A.M. (Honorary) 1979
American Association for the Advancement of Science	Fellow
American Academy of Arts and Sciences	Fellow
Council on Foreign Relations	Member

International Institute for Strategic Studies	Member
National Academy of Engineering	Member
Phi Beta Kappa	Honorary Member
Phi Kappa Phi	Member
Sigma Pi Sigma	Member
Sigma Xi	Member
Harvard-Radcliffe Club of Southern California	John Harvard Award for Distinguished Community Service, 2002
Cooper Union	Gano Dunn Award for Outstanding Professional Achievement, 1985
U.S. Arms Control and Disarmament Agency	Exceptional Achievement Award 1970, 1971, and 1972
North Carolina State University	Alumni Award for Outstanding Teaching, 1968

OTHER PROFESSIONAL ACTIVITIES (SELECTED)

The Cooper Union for the Advancement of Science and Art, President's Council
Member, 2013 - present

National Research Council Committee on NASA's Strategic Direction,
Chair, 2012-present

U.S. Secretary of Energy's Blue Ribbon Commission on America's Nuclear Future
Member, 2010-2012

National Research Council Committee on America's Climate Choices,
Chair, 2008-2011

Los Alamos National Security/Lawrence Livermore National Security Mission Committee,
Member, 2008-2012

World Economic Forum's Global Agenda Council on Weapons of Mass Destruction,
Member, 2008-2011

RAND Corporation's Center for Global Risk and Security Advisory Board,
Member, 2008-present

Teradyne, Board of Directors,
Director, 1993-present

NanoPacific Holdings, Inc., Board of Directors,
Director, 2009-present

Amicrobe, Inc., Board of Directors,
Member, 2011-present

National Research Council Committee on Sustaining and Improving the Nation's Nuclear Forensics Capabilities,
Chair, 2008-2010

National Research Council Committee on Conventional Prompt Global Strike Capability ,
Chair, 2007-2009

FBI Director's Advisory Committee on National Security and Higher Education,
Member, 2007-2011

Deemed Export Advisory Committee (Advisory to the U.S. Secretary of Commerce),
Member, 2006-2007

Harvard University's Belfer Center for Science and International Affairs Board of Directors,
Director, 1991-present

International Nuclear Fuel Cycle Evaluation,
Head of U.S. Delegation, 1978-80

U.S. Nuclear Regulatory Commission,
Member of special hearing board on safety, health, environment, and safeguards aspects of wide-scale
use of plutonium as nuclear reactor fuel, 1976-77

PUBLICATIONS

Books

New Nuclear Nations: Consequences for U.S. Policy (co-authored and edited with Robert D. Blackwill),
Council on Foreign Relations, 1993.

Fateful Visions: Avoiding Nuclear Catastrophe (co-authored and edited Graham T. Allison and Joseph S.
Nye, Jr.), Ballinger Publishing Company, 1988.

Superpower Arms Control: Setting the Record Straight (co-authored and edited with Richard N. Haass),
Ballinger Publishing Company, 1987.

Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War (with Graham T. Allison and
Joseph S. Nye, Jr.), W. W. Norton, 1985.

Living with Nuclear Weapons (with P. Doty, S. Hoffmann, S. Huntington, J. Nye, and S. Sagan),
Harvard University Press and Bantam Books, 1983.

Book Chapters and Articles

"Recommendations by the Blue Ribbon Commission on America's Nuclear Future: A Plan for Managing
Spent Nuclear Fuel and High-Level Nuclear Waste", National Academy of Engineering, *The Bridge*,
Summer 2012, pp. 15-22.

"Managing the ABM Treaty Regime: Issues and Options," in *Defending Deterrence*, edited by A.
H. Chayes and P. Doty, pp. 217-238, Pergamon Brassey's, 1989.

- "American View [on Strategic Stability: Limiting Competition in Nuclear Arms]", in *Windows of Opportunity: From Cold War to Peaceful Competition in U.S.-Soviet Relations*, edited by Graham T. Allison and William L. Ury with Bruce J. Allyn, Ballinger Publishing Company, 1989.
- "Smart Weapons and Ordinary People: Implications of Increasingly Accurate Long-Range Missiles," in *Fateful Visions*, edited by Joseph S. Nye, Jr., Graham T. Allison, and Albert Carnesale, pp. 33-45, Ballinger Publishing Company, 1988.
- "Can the West Accept Da for an Answer?" (with Graham T. Allison), *Daedalus*, Summer 1987.
- "Lessons Learned from Superpower Arms Control" (with Richard N. Haass), *The Washington Quarterly*, Summer 1987.
- "The Owls' Agenda for Avoiding Nuclear War" (with Graham T. Allison and Joseph S. Nye, Jr.), *The Washington Quarterly*, Summer 1986.
- "Hawks, Doves and Owls: A New Perspective on Avoiding Nuclear War" (with Graham T. Allison and Joseph S. Nye, Jr.), *International Affairs*, 1985.
- "The Strategic Defense Initiative," in *American Defense Annual, 1985-1986*, edited by G. E. Hudson and J. J. Kruzal, Lexington Books, 1985.
- "Faucons, Colombes et Hiboux: une Nouvelle Approche pour Evitar la Guerre Nucleaire" (with Graham T. Allison and Joseph S. Nye, Jr.), *Politique Etrangere*, No. 4, Winter 1985.
- "Die Verringerung der Gefahr eines Nuklearkriegs. Eine neue Sichtweise des Problems," *Europa Archiv* 17, 1985, pp. 521-528.
- "The Strategic Defense Initiative and Arms Control," *Harvard International Review*, January/February 1985, pp. 29-31.
- "Governance of Nuclear Power," in *The Nuclear Chain Reaction: Forty Years Later*, edited by Robert G. Sachs, pp. 220-229, University of Chicago, 1983.
- "The Utility Director's Dilemma: The Governance of Nuclear Power" (with Graham T. Allison), in *Uncertain Power*, edited by Dorothy Zinberg, pp. 134-153, Pergamon Press, 1983.
- "On Limiting Technology by Negotiated Agreement," in *Physics, Technology and the Nuclear Arms Race*, edited by D. W. Hafemeister and D. Schroerer, pp. 230-238, American Institute of Physics, 1983.
- "Personal Views on Ballistic Missile Defense," in *Ballistic Missile Defense*, edited by Ashton B. Carter and David N. Schwartz, pp. 373-380, The Brookings Institution, 1983.
- "ICBM Vulnerability: The Cures are Worse than the Disease" (with Charles Glaser), *International Security* 7, 1982, pp. 70-85.
- "June 7 in Baghdad," *The Bulletin of the Atomic Scientists*, August/September 1981, pp. 11-13.
- "Reviving the ABM Debate," *Arms Control Today*, vol. II, 1981, pp. 1-8.
- "International Nuclear Fuel Cycle Evaluation," in *International Energy Strategies*, edited by Joy Dunkerley, pp. 29-36, Oelgeschlager, Gunn and Hann, 1980.

"U.S. Nonproliferation Policy," in *Nuclear Energy and Alternatives*, edited by Osman, Kadiroglu, et al., pp. 333-346, Ballinger Publishing Co., 1978.

"The Nuclear Fuel Cycle and Nuclear Proliferation" (with G. Rathjens), in *International Arrangements for Nuclear Fuel Reprocessing*, edited by Abram Chayes and Bennett Lewis, pp. 3-15, Ballinger Publishing Company, 1977.

"Nuclear Power and Nuclear Proliferation," *Options for U.S. Energy Policy*, pp. 61-76, Institute for Contemporary Studies, 1977.

"The Race to Control Nuclear Arms" (with P. Doty and M. Nacht), *Foreign Affairs* 55, 1976, pp. 119-132.

"The Implications of the Growth of Nuclear Power for the Proliferation of Nuclear Weapons," *Bulletin of the American Academy of Arts and Sciences* 29, 1976, pp. 4-10.

"The Devil's Advocates" (with T. S. Elleman), in *The Energy Question: An International Failure of Policy, Vol. 1: The World*, edited by Edward W. Erickson and Leonard Waverman, pp. 267-271, University of Toronto Press, 1974.

"Semi-Empirical Formulas for Gamma Ray Dose Rates through Two-Layer Slab Shields" (with D. A. Sharp), in *Nuclear Technology* 12, 1971, pp. 375-380.

"The Solid Angle Subtended at a Point by a Circular Disk" (with R. P. Gardner), in *Nuclear Instruments and Methods* 73, 1969, pp. 228-230.

"Monte Carlo Simulation of a Neutron Soil Density Gauge" (with R. P. Gardner and J. Lippold), in *Nuclear Engineering and Design* 10, 1969, pp. 373.

"Operating Characteristics of a Capillarity-Limited Heat Pipe" (with J. Cosgrove and J. K. Ferrell), in *Journal of Nuclear Energy* 21, 1967, pp. 548-558.

"Hydraulic Stability in Heated Parallel Channels," *Transactions of the American Nuclear Society* 7, 1964, pp. 508-509.

Miscellaneous Publications (Selected)

"NASA's Strategic Direction and the Need for a National Consensus", *Report to the National Research Council of the National Academies*, The National Academies Press, 2012.
<http://www.nap.edu>.
(Committee Chair)

"Blue Ribbon Commission on America's Nuclear Future", *Report to the Secretary of Energy*,
<http://brc.gov>, 2012.
(Co-author)

"America's Climate Choices", National Research Council of the National Academies, *National Academies Press*, 2011.
(Co-author)

"Nuclear Forensics A Capability at Risk", National Research Council of the National Academies, *National Academies Press*, 2010.
(Co-author)

- “U.S. Conventional Prompt Global Strike: Issues for 2008 and Beyond”, National Research Council of the National Academies, *National Academies Press*, 2008.
(Co-author)
- “Nuclear Forensics: Role, State of the Art, Program Needs”, Joint Working Group of the American Physical Society and the American Association for the Advancement of Science, *AAAS Center for Science, Technology and Security Policy Press*, 2008.
(Co-author)
- “The Deemed Export Rule in the Era of Globalization”, Deemed Export Advisory Committee (a federal advisory committee to the U.S. Secretary of Commerce), *Department of Commerce*, 2007.
(Co-author)
- “The Private-Public Gap in Higher Education,” *The Chronicle of Higher Education*, Point of View, January 6, 2006.
- “The Future of the Research University,” *Los Angeles Times*, Opinion, March 5, 2002.
- “The UCLA Library: A Home for the World’s Collective Knowledge,” *Los Angeles Times*, Opinion, February 19, 2002.
- “The Arts: Preserving the Past, Understanding the Present, Shaping the Future,” *Los Angeles Times*, Opinion, February 5, 2002.
- “IT: A Revolution,” *Los Angeles Times*, Opinion, January 22, 2002.
- “UCLA Extension: Learning for a Lifetime,” *Los Angeles Times*, Opinion, January 8, 2002.
- “The University: Society’s Forum for the Free Exchange of Ideas,” *Los Angeles Times*, Opinion, December 18, 2001.
- “The Future of the Teaching Hospital at Risk,” *Los Angeles Times*, Opinion, December 4, 2001.
- “Genetics and Society: Unraveling the Mysteries of Life,” *Los Angeles Times*, Opinion, November 20, 2001.
- “Improving Our Schools: The Test We All Must Pass,” *Los Angeles Times*, Opinion, November 6, 2001.
- “UCLA in LA: A Dynamic Partnership,” *Los Angeles Times*, Opinion, October 23, 2001.
- “The Research University Next Door,” *Los Angeles Times*, Opinion, November 9, 2001.
- “The First Real Lesson of the 21st Century,” *Los Angeles Times*, Opinion, September 25, 2001.
- “UCLA in LA: An Enduring Partnership,” *Los Angeles Times*, Opinion, September 11, 2001.
- “When Teaching Hospitals Ail, the Cure is a Private Matter,” *Los Angeles Times*, Opinion, August 6, 2000.
- “A New Test for the New Freshman Class,” *Los Angeles Times*, Opinion, March 20, 1998.
- “Defusing Doomsday,” (with Graham Allison and Joseph Nye), *The Boston Globe*, May 29, 1988.

"Why Ratifying the INF Treaty Really Matters" (with Graham Allison), *The Christian Science Monitor*, May 3, 1988.

"Why Say No to 1,500 Warheads?" (with Graham Allison), *The New York Times*, November 15, 1987.

"Arms Control Plus 'Star Wars'" (with Richard N. Haass), *The New York Times*, February 2, 1987.

"Hard-Site Defense," an editorial, *Issues in Science and Technology*, Winter, 1986.

"Getting There From Here," Interview in *Nuclear Times*, March-April 1986.

"Is Europe Contrary?" (with Graham T. Allison), *The New York Times*, March 26, 1986.

"Damping the Fuse: Command in Crisis" (with Graham T. Allison and Joseph S. Nye, Jr.), *Science* 85, December 1985.

"Of Hawks, Doves -- and, Now, Owls" (with Graham T. Allison and Joseph S. Nye, Jr.), *The New York Times*, July 31, 1985.

Commentary, *The Nuclear Connection* (Ch. 3, Richard Lester's "Backing off the Back End"), edited by Weinberg, A., Alonso, M., Barkenbus, J., Paragon House Publishers, 1985.

"Governance of Nuclear Power," (with Graham T. Allison, Paul Zigman, and Francis X. De Rosa), a report submitted to The President's Nuclear Safety Oversight Committee, September, 1981.

"Nuclear Fission on the Road to War and Peace," a book review, *The Washington Post, Book World*, May 10, 1981.

"Bombs Away: The War Against Nuclear Weapons," a book review, *The Washington Post, Book World*, February 20, 1983.

"Wise Hawks Will Support SALT Accords," *Los Angeles Times*, Opinion, May 13, 1979.

"The Progressive Should Drop the H-Bomb Case," *The Christian Science Monitor*, May 23, 1979.

"Under the Cloud of the Atom," an interview in *Die Ziet*, January 21, 1977.

"Nuclear Power Issues and Choices: Report of the Nuclear Energy Policy Study Group", *Ballinger Publishing Company*, 1977. (Co-author)

INVITED LECTURES (SELECTED)

U.S. Nuclear Waste Technology Review Board, "Overview of the Final Report of the Blue Ribbon Commission on America's Nuclear Future", Albuquerque, NM, March 7, 2012

2012 Waste Management Symposium, "Key Elements of the Final Report of the Blue Ribbon Commission on America's Nuclear Future", Phoenix, AZ, March 1, 2012

RAND Corporation, "Zero Nuclear Weapons", Santa Monica, CA, February 8, 2012

UCLA Institute for the Environment and Sustainability, Oppenheimer Lecturer, “America’s Climate Choices”, October 12, 2011

Pacific Council on International Policy, “The Future of Nuclear Weapons”, Sun Valley, ID, August 11, 2011

Hammer Museum, “Death of the Nuclear Renaissance”, Los Angeles, CA, June 22, 2011

UCLA School of Dentistry, “Commencement Address”, June 5, 2011

J.F.K. School of Government, Harvard University, “Hawks, Doves, and Owls: Then and Now”, May 16, 2011

UCLA Institute for the Environment and Sustainability, “Lessons from Fukushima”, April 18, 2011

World Affairs Council of Orange County, “Countdown to Zero”, October 21, 2010

Physicians for Social Responsibility, Global Security Seminar, “Zero Nuclear Weapons: Good Idea? Bad Idea? So What?”, Los Angeles, CA, June 16, 2010.

Pacific Council on International Policy, “Countdown to Zero”, Los Angeles, CA, June 8, 2010.

Milken Institute Global Conference, “Halting the Spread of Nuclear Weapons”, Los Angeles CA, April 27, 2010.

UCLA Institute of the Environment’s “Environmental Science Colloquium: America’s Climate Choices”, Los Angeles, CA, April 14, 2010.

The Gulf States, European & North American Law Enforcement Symposium The International Perspective on Law Enforcement Cooperation, Beverly Hills, CA November 3-5, 2009.

UCLA Day, Los Angeles, CA, Panel on Climate Change, “America’s Climate Choices: How Will America Tackle Climate Change,” May 9, 2009.

National Research Council of the National Academies of Science, Engineering, and Medicine, Summit for America’s Climate Choices, Washington DC, “Developing the Framework for a National Response to Climate Change,” March 30-31, 2009.

RAND Center for Global Risk and Security Advisory Board, Los Angeles, CA, “Climate Change and National Security, “Many Questions – Few Answers,” March 23, 2009.

UCLA School of Public Affairs, Los Angeles, CA, “The First 51 ½ Days of the Obama's Term in Office,” March 12, 2009.

UCLA Henry Samueli School of Engineering and Applied Sciences, Los Angeles, CA, “National Academies of Sciences U.S. Conventional Prompt Global Strike: Issues for 2008 and Beyond,” December 2, 2008.

Los Angeles Air Force Base, El Segundo, CA “Seeking the Right Stuff: Ensuring a Vibrant Aerospace Industrial Base,” September 15, 2008.

Centre for Global Studies, University of Victoria, British Columbia, “Strategies for Avoiding Nuclear War and Their Implications for Avoiding Catastrophic Climate Change,” August 12, 2008.

Harvard Kennedy School, Belfer Center for Science and International Affairs, Board of Directors, “Nuclear Forensics,” May 21, 2008.

UCLA Los Donas Alumni Association Club, Los Angeles, CA, "Nuclear Proliferation: What's New? What's Not? What's Next?" May 7, 2008.

UCLA Anderson School of Management, Los Angeles, CA, Terrorism, and Counterterrorism: Public and Private Responses graduate course "Are we any safer now than before 9/11?," April 9, 2008.

National Research Council Governing Board, Executive Committee, Irvine, CA, "An Alternative to Nuclear Weapons?," November 14, 2007.

UCLA International Institute, Global Studies Course, Los Angeles, CA, "Contemporary Challenges to U.S. National Security," October 25, 2007.

U.S. Department of State/Hudson Institute/NATO (International Information Programs Conference) Moscow, Russia, "U.S. Non-Proliferation and Counter-Proliferation Policy," June 28, 2007.

Harvard University, Edmond J. Safra Foundation Center for Ethics, Cambridge, MA, "University Ethics," May 19, 2007.

UCLA Burkle Center Nuclear Weapons Conference, Los Angeles, CA, "Is Proliferation Inevitable? And Do We Need a New Regime to manage it?," March 6, 2007.

KCRW Radio Broadcast "To the Point," Los Angeles, CA, "American Nuclear Proliferation and North Korea," March 5, 2007.

NECN Boston Network News, Boston, MA, "Agreement Reached at North Korea Nuclear Talks," February 12, 2007.

Rotary Club of Beverly Hills, Beverly Hills, CA, "UCLA and the Future of Public Higher Education," September 19, 2005.

California Club, Los Angeles, CA, "Stemming Nuclear Proliferation," April 28, 2005.

Rotary Club of Rancho Park, Rancho Park, CA, "Nuclear Weapons in a Changing World," October 27, 2004.

Town Hall Los Angeles, Los Angeles, CA, "UCLA and the Future of Public Higher Education," October 7, 2004.

Operation HOPE Inner City Economic Summit, Los Angeles, CA, "UCLA in LA," April 18, 2002.

Town Hall Los Angeles, Los Angeles, CA, "Rethinking National Security," April 17, 2002.

UCLA Campus-wide Lecture, Los Angeles, CA, "Rethinking National Security," February 28, 2002.

Rotary Club of Los Angeles, Los Angeles, CA, "UCLA and Los Angeles - a Unique Relationship," January 11, 2002.

Los Angeles Committee on Foreign Relations Dinner and Roundtable Discussion, featured speaker, "Defending the American Homeland," October 15, 2001.

Town Hall Los Angeles, Los Angeles, CA, "Missile Defense – How Much is Enough?," August 14, 2001.

University of California Management Institute conference, Berkeley, CA, "Strategic Leadership From a Chancellor's Perspective," July 26, 2001.

Cambridge Executive Enterprises, Long Beach, CA, "Challenges to Higher Education," November 17, 2000.

Foreign Correspondents' Club of Japan, Tokyo, Japan, "America's Next International Agenda," November 9, 2000.

Waseda University, Tokyo, Japan, "IT and the Future of the Research University," November 8, 2000.

The Milken Institute Forum, Santa Monica, CA, "Challenges Facing Higher Education," May 31, 2000.

The Sunset Club, Los Angeles, CA, "America's Next International Agenda," October 27, 1999.

Santa Monica College Associates Board of Directors' 17th Annual Membership Celebration, Marina del Rey, CA, "America's Next International Agenda," September 23, 1999.

University of California Management Institute Conference, Irvine, CA, "A Chancellor's Perspective on Leadership," July 29, 1999.

20th Bernard Brodie Distinguished Lecture on the Conditions of Peace, UCLA, Los Angeles, CA, "America's Next International Agenda," April 15, 1999.

Belfer Center for Science and International Affairs, Harvard University, Cambridge, MA, "From Harvard to UCLA: A Transition, a Goal, and a Strategy," March 24, 1999.

UCLA Faculty Women's Club Scholarship Awards Dinner, Los Angeles, CA, "UCLA: Where Great Futures Begin," February 9, 1999.

The Jacob Marschak Interdisciplinary Colloquium on Mathematics in the Behavioral Sciences, UCLA, Los Angeles, CA, "Nuclear Proliferation: What's New? What's Not? What's Next?," December 4, 1998.

Cambridge Forum, Cambridge, MA, "America's Role in the Next Millennium," October 16, 1996.

David J. Rose Lecture, Massachusetts Institute of Technology, Cambridge, MA, "Nuclear Proliferation after the Cold War," October 7, 1996.

IBM Telecommunications Solutions Conference, Orlando, FL, "International Order and Disorder," July 17, 1996.

World Affairs Council of Boston, Boston, MA, facilitator of discussion on "East Asia and the Pacific Rim," April 12, 1994.

World Affairs Council of Boston, Boston, MA, "After the Cold War: America's New Agenda," February 23, 1994.

Temple Emunah, Lexington, MA, "After the Cold War: America's New Agenda," February 6, 1994.

Renaissance Weekend, Hilton Head, SC, panelist for discussion of "'The Situation Room': International Crises and Peacekeeping," December 30, 1993.

World Affairs Council of Northern California, San Francisco, CA, "Off the Record Lunch," October 28, 1993.

World Affairs Council of Northern California, San Francisco, CA, "The Cold War Is Over: The Next American Agenda," June 24, 1993.

World Forum of Silicon Valley, San Jose, CA, "The Cold War Is Over: The Next American Agenda," June 23, 1993.

World Economic Forum, Davos, Switzerland, panelist for "Non-Proliferation Session," January 30, 1993.

Russian Federation General Staff Academy, Moscow, Russia, "Coping with the Proliferation of Weapons of Mass Destruction," January 20, 1993.

Carey Library, Lexington, MA, "Coping with New Nuclear Nations," November 15, 1992.

Dallas Committee on Foreign Relations, Dallas, TX, "Coping with New Nuclear Nations," November 5, 1992.

San Francisco Committee on Foreign Relations, San Francisco, CA, "Coping with New Nuclear Nations," October 29, 1992.

U.S. Naval Postgraduate School, Monterey, CA, "U.S. Foreign Policy in the 1990's," July 31, 1991.

Center for International and Strategic Affairs, UCLA, "National Security in a Changing World," March 15, 1991.

Institute of International Studies, UC Berkeley, "Nuclear Weapons in a Changing World," March 14, 1991.

American Association for the Advancement of Science Colloquium on Science and International Security, Washington, DC, "Offense & Defense: The Future of Strategic Relationships," December 13-14, 1990.

Military Operations Research Society Symposium, Strategic Air Command, Omaha, Nebraska, "Nuclear Weapons in a Changing World," November 28, 1990.

Lawrence Livermore National Laboratory, Livermore, CA, "Nuclear Weapons in a Changing World," October 22-25, 1990.

Stanley Foundation Foreign Policy Program for Congressional Staff, Annapolis, MD, "U.S. Security in the 1990s and Beyond," March 15, 1990.

Air Force University, Maxwell AFB, Alabama, "Balance of Power," March 8-9, 1990.

Central Intelligence Agency Arms Control Seminar, Langley, VA, "Arms Control: What Lies Ahead?," January 10, 1990.

American Association for the Advancement of Science Colloquium, Washington, DC, "Concluding a START Treaty: Prospects, Obstacles, and Implications for Security," November 17, 1989.

National Defense University, Washington, DC, "Implementing National Strategy and Security Policy," November 16, 1989.

University of Washington, Seattle, WA, "Windows of Opportunity: Prospects for US/USSR Relations," November 10, 1989.

Nuclear War and Peace Education Conference, George Mason University, "Superpower Arms Control: What Path Are We On?," June 2-4, 1989.

American Association for the Advancement of Science Congressional Seminar, Washington, DC, "The Enduring Problem of ICBM Basing," June 1, 1989.

Physicians for Social Responsibility, Baltimore, MD, "What Decreases the Chances of Nuclear War?," March 11, 1989.

Distinguished Lecturer, The Distinguished Lecturer Series, Mitre Corporation, Washington, DC, "Superpower Arms Control," February 2, 1989.

Distinguished Lecturer, The Distinguished Lecturer Series, Mitre Corporation, Bedford, MA, "Superpower Arms Control," November 29, 1988.

Columbia University Seminar on Arms Control, New York City, "Stability and Verification in Nuclear Weapons," November 2, 1988.

Council on Economic Priorities, New York City, "Nuclear Weapons Issues," October 27, 1988.

Cambridge Forum, Cambridge, MA, "Smart Weapons and Ordinary People," October 26, 1988.

The McBride Lecture Series, Global Currents '88, Case Western Reserve University, OH, "Nuclear Arms Control: What to Do?," October 25, 1988.

Heritage Foundation, Washington, DC, "Technological Feasibility of the Strategic Defense Initiative," August 30, 1988.

Corliss Lamont Lecture, University of Wisconsin, "Avoiding Nuclear War Over the Long Term," April 11-12, 1988.

Harrelson Lecturer, North Carolina State University, "Superpower Arms Control: Myths and Realities" and "Beyond Nuclear Deterrence: Visions of a Safer Future," April 11-12, 1988.

National War College, Washington, DC, "The Strategic Defense Initiative," March 3, 1988.

Central Intelligence Agency, Langley, VA, "Two Sides of Strategic Arms Issues," June 1, 1987.

Sandia National Laboratory, Albuquerque, NM, "Arms Control Verification: The Broad Context," April 14, 1987.

UCLA, Center for International & Strategic Affairs, "Learning From Experience with Arms Control," May 19, 1986.

Visiting Kistiakowsky Fellow, Knox College, IL, "Beyond Nuclear War?"; "Star Wars: Cruel Hoax or Moral Imperative"; "Arms Control: Treaties, International Law, and Realpolitik," April 14-17, 1986.

Visiting Kistiakowsky Fellow, Lake Forest College, IL, "SDI"; "ANW"; "Living with Nuclear Weapons"; "Arms Control," December 5-7, 1985.

World Affairs Council of Boston, Young Professionals Forum, "Hawks, Doves and Owls: An Agenda for Avoiding Nuclear War," October 10, 1985.

University of North Carolina, Triangle University Security Seminar, "Avoiding Nuclear War," August 16, 1985.

World Affairs Council of Boston, "Star Wars: Cruel Hoax or Moral Imperative?," December 11, 1984.

National Security Issues Symposium, MA, "Space Defense," October 25-26, 1984.

Interfaith Symposium, The Nuclear Threat, Houston, TX, "Why Do Nations Really Want Nuclear Weapons?," June 24, 1984.

Drexel University, Philadelphia, Distinguished Alumni Lecture, "Living With Nuclear Weapons," April 3, 1984.

Lawrence Livermore National Laboratory, Livermore, CA, "The University and National Security Policy," August 29, 1983.

American Physical Society, Baltimore, "On Limiting Technology by Negotiated Agreement," April 17, 1983.

University of Chicago, Nuclear Symposium, "Governance of Nuclear Power," December 2, 1982.

American Nuclear Society, MIT, Cambridge, "Nuclear Arms Control," September 28, 1982.

Lawyers Alliance for Nuclear Arms Control, Inc., Boston, "The Promises and Problems of Arms Limitations," March 16, 1982.

Arthur D. Lithe, Cambridge, MA, "Governance of Nuclear Power," February 8, 1982.

Kellogg Foundation, Boston, Conference on Technology in Society, "Technology and Policy," November 5, 1981.

Foreign Service Institute, Department of State, "The Future of Nuclear Power," October 7, 1980.

Naval War College, Newport, RI, "SALT II Issues," December 3, 1979.

Harvard University, "Ballistic Missile Defense: Updating the Debate," presented at a symposium, November 1-2, 1979.

IAEE-RFF Conference on International Energy Issues, Washington, DC, "The International Nuclear Fuel Cycle Evaluation (INFCE)," June 6, 1979.

North Carolina State University, Raleigh, NC, Symposium 1984: Fact or Fiction?, "Nuclear Arms Control," February 6, 1979.

American Association for the Advancement of Science, Annual Meeting, Houston, TX, "Nuclear Non-Proliferation Policy: Technology and Institutions," January 7, 1979.

Atomic Industrial Forum Annual Conference, Washington, DC, "International Nuclear Fuel Cycle Evaluation," November 15, 1978.

University of Pittsburgh, Seminar on Energy Futures and U.S. National Security, "Nuclear Power and Nuclear Proliferation," April 24, 1978.

Cambridge Forum, Cambridge, MA, "Nuclear Power and Nuclear Proliferation," April 24, 1978.

The Brookings Institute, Advanced Study Program Public Policy Conference for Senior Federal Executives, "Policy Issues in Energy: Nuclear Power and Nuclear Proliferation," March 16, 1978.

North Carolina State University, Raleigh, Symposium on International Interdependence, "Interdependence and International Security," February 17, 1978.

Duke University, NC, The Duke Colloquia on National Security, Institute of Policy Sciences & Public Affairs, "Nuclear Energy & Nuclear Proliferation," December 8, 1977.

Racine, Wisconsin, Pugwash Symposium on International Arrangements for the Nuclear Fuel Cycle, "The Nuclear Fuel Cycle and Nuclear Proliferation," May 14-17, 1976.

Pugwash, Nova Scotia, Meeting of the American and Canadian Pugwash Groups, "Arms Control Implications of Alternative Nuclear Fuel Cycles," July 25-26, 1975.

CONGRESSIONAL TESTIMONY AND PRESENTATIONS

Senate Armed Forces Committee and House Armed Service Committee, "U.S. Conventional Prompt Global Strike: Issues for 2008 and Beyond," Final Report from Conventional Prompt Global Strike Committee, August 25-26, 2008.

House Armed Services Committee, Subcommittee on Strategic Forces, "Preliminary Report from Conventional Prompt Global Strike Committee," July 10, 2007.

Senate Foreign Relations Committee, "Strategic Nuclear Reductions in a Post-Cold War World: National Security Issues," February 27, 1992.

House Armed Services Committee; Research and Development Subcommittee, "The ABM Treaty and the Senate Plan," September 25, 1991.

House Armed Services Committee, "The Future of the Strategic Defense Initiative," April 16, 1991.

House Armed Services Committee; Research and Development Subcommittee, "Defense Research & Development," February 23, 1989.

House Armed Services Committee, Defense Policy Panel, "Process and Implications of the Iceland Summit," December 4, 1986.

House Armed Services Committee; Special Panel on Arms Control and Disarmament of the Procurement and Military Nuclear Systems Subcommittee, "Arms Control Oversight," October 31, 1985.

House Armed Services Committee, Panel on Defense Policy, "Avoiding Nuclear War," June 11, 1985.

Senate Armed Services Committee, Subcommittee on Strategic and Theater Nuclear Forces, "Department of Defense Authorization for Fiscal Year 1986," March 18, 1985.

House of Representatives Intelligence Committee, Classified Testimony on "Verification," April 26, 1984.

Senate Foreign Relations Committee, "Strategic Defense and Anti-Satellite Weapons," April 25, 1984.

House Committee on Foreign Affairs, Subcommittees on International Security and Scientific Affairs on Europe and the Middle East and on International Economic Policy and Trade, "Israeli Attack on Iraqi Nuclear Facilities," June 25, 1981.

Senate Foreign Relations Committee, "The Israeli Air Strike," June 19, 1981.

Senate Subcommittee on Energy, Nuclear Proliferation, and Federal Services, Committee on Governmental Affairs, "Nuclear Nonproliferation Act of 1977," April 29, 1977.

Senate Committee on Government Operations, "Export Reorganization Act of 1976," January 20, 1976.

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