

2021 PUBLIC POLICY FELLOWSHIP – COURSE SYLLABUS

COURSE AIMS

This course focuses on questions central to assessing the merits of any nation’s civil and military nuclear policies. Course topics include nuclear deterrence, nuclear energy and technology, the history of nuclear nonproliferation and arms control, energy economics, nuclear terrorism and intelligence, and future trends.

ATTENDANCE POLICY AND SCHEDULE

The course will cover the following topics over an 11 week period. Participants are expected to attend six or more seminars, and at least three must be priority topics. Any class marked with an (*) is considered a priority topic. Any class that is missed can be made up by taking the online quiz.

September 10 th	City Busting, the Nuclear Weapons Revolution, and Precision Guidance*
September 17 th	Nuclear Deterrence
September 24 th	Nuclear Energy Basics: Fission, Fusion and Bomb Designs, Part 1*
October 1 st	Nuclear Energy Basics: Fission, Fusion and Bomb Designs, Part 2*
October 8 th	Nuclear Energy Basics: Reactors and Fuel Making*
October 15 th	Early International Nuclear Controls: The Acheson-Lilienthal Report, the Baruch Plan, and Eisenhower’s Atoms for Peace*
October 22 nd	International Nuclear Controls, Part 2: International Atomic Energy Agency (IAEA) and Safeguards, The Nuclear Nonproliferation Treaty (NPT) and the Three Pillars View *
October 29 th	Arms Control
November 5 th	Energy Economics: Nuclear and Non-Nuclear
November 12 th	Nuclear Terrorism and Nuclear Proliferation Intelligence
November 19 th	Thinking About the Next Arms Race*

OPTIONAL DISCUSSION MEETINGS AND GUEST LECTURES

In between formal required lectures, several optional, additional guest lectures will be held at 5 pm on the following days:

September 13 th	Jim Thomas : The World Replete with Advanced Precision Strike Weapons
September 20 th	Eric Brown : How to Deter China
September 27 th	Eva Lisowski : Grim Prospect: Low-Yield Nuclear Weapons in the Middle East
October 4 th	Bruce Goodwin : Reactor-Grade Plutonium's Weapons Utility Commentary by Thomas Cochran
October 12 th (Tuesday)	Edwin Lyman : What Happened at Fukushima?
October 18 th	Victor Gilinsky : The Rise and Fall of the US Atomic Energy Commission
October 25 th	Gregory Jones : How Quickly Can Iran Get a Bomb?
November 1 st	Brian Chow : Technical and Policy Responses to Rendezvous Spacecraft and Ground-Based Laser ASAT
November 8 th	Peter Bradford : Economics of the UAMPS NuScale Reactor Project
November 15 th	William Tobey : Libya As a Nuclear Nonproliferation Intelligence Success

ACCESSING PASSWORD PROTECTED READINGS

Additional required and recommended readings/films listed in syllabus will be made available to the students at the following website: www.NuclearPolicy101.org.

Password protected readings can be accessed with the following information:

Username: NuclearPolicy101

Password: NP101

1. CITY BUSTING, THE NUCLEAR WEAPONS REVOLUTION, AND PRECISION GUIDANCE

REQUIRED READINGS

- Simon Denyer, [One-third of Americans would support a preemptive nuclear strike on North Korea, researchers say](#), *Washington Post*. June 25, 2019. (Last Accessed August 26, 2019)
- James Digby, [Precision Guided Weapons](#), *Adelphi Paper* no. 118 (London: International Institute for Strategic Studies, 1975). **Password protected PDF**
- Henry Sokolski, [City Busting, the Nuclear Weapons Revolution, and Precision Guidance Lecture Notes](#), *Nonproliferation Policy Education Center*. September 2021.
- Henry Sokolski and Greg Jones, [Two Modern Military Revolutions: Dramatic Increases in Explosive Yields and Aiming Accuracies](#), *Nonproliferation Policy Education Center*, October 4, 2013.

RECOMMENDED READINGS

The Importance of Reading History

- Richard Fontaine and Vance Serchuck, [“The Uses and Misuses of Historical Analogy for North Korea,”](#) *The Atlantic*, October 3, 2017.
- Richard E. Neustadt and Ernest May, [Thinking in Time: The Uses of History for Decisions Makers](#) (New York: The Free Press, 1986).
- Roger C. Schank, [Tell Me a Story: Narrative and Intelligence](#) (Branston, IL: Northwestern University Press, 1990).

Targeting Innocents before World War II: Theories and Practice

- A. J. Barker, [The Civilizing Mission: A History of the Italo-Ethiopian War of 1935-1936](#) (New York: Dial Press, 1968), 231-244. **Password protected PDF**
- Thomas M. Coffey, [Lion by the Tail: The Story of the Italian-Ethiopian War](#) (New York: Viking Press, 1974), 262-282. **Password protected PDF**
- Erik J. Dahl, [“Net-Centric Before Its Time: The Jeune Ecole and Its Lessons for Today,”](#) *Naval War College Review* 58, no. 4 (Autumn 2005): 109-125.
- Giulio Douhet, [Command of the Air](#), trans. Dino Ferrari (Washington, DC: Air Force History and Museum Programs, 1998).
- William Mitchell, [Winged Defense: The Development and Possibilities of Modern Air Power—Economic and Military](#) (New York: G.P. Putnam’s Sons, 1925).

Hugh Trenchard, "[The War Object of an Air Force](#)," in *The Art of War in World History: From Antiquity to the Nuclear Age*, ed. Gérard Chaliand (Berkeley: University of California Press, 1994), 905-910.

Strategic Bombing: World War II

["Battle of Britain,"](#) *Wikipedia*, last modified August 4, 2021.

["Battle of the Netherlands,"](#) *Wikipedia*, last modified August 8, 2021.

["Bombing of Cologne in World War II,"](#) *Wikipedia*, last modified June 14, 2021.

["Bombing of Dresden in World War II,"](#) *Wikipedia*, last modified August 2, 2021.

["Rotterdam Blitz,"](#) *Wikipedia*, last modified July 17, 2021.

Tami Davis Biddle, "[Dresden 1945: Reality, History, and Memory](#)," *Journal of Military History* 72 (April 2008): 413-449. **Password protected PDF**

Sebastian Cox, ed. *The Strategic Air War against Germany, 1939-1945: The Official Report of the British Bombing Survey Unit* (London: Frank Cass Publishers, 1998).

[First Half:](#) **Password protected PDF**

[Second Half:](#) **Password protected PDF**

Daniel Gelernter, "[Was Dropping the Atomic Bomb Necessary?](#)" *Washington Examiner*, August 27, 2015.

B. H. Liddell Hart, "[The Crescendo of Bombing: The Strategic Air Offensive against Germany](#)," in *History of the Second World War* (New York: G.P. Putnam's Sons, 1970), 589-612. **Password protected PDF**

Alexander McKee, *Dresden 1945: The Devil's Tinderbox* (New York: E.P. Dutton, 1984), 46-68. **Password protected PDF**

Richard Overy, *The Bombing War: Europe 1939-1945* (New York: Penguin Books, 2013).

Robert A. Pape, "Japan, 1944-1945" and "Germany, 1942—1945," in *Bombing to Win: Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996), 87-136; 254-313. **Password protected PDF**

U.S. Department of War, *U.S. Strategic Bombing Survey: European War* (Washington, DC: Government Printing Office, September 30, 1945).

U.S. Department of War, *U.S. Strategic Bombing Survey: Pacific War* (Washington, DC: Government Printing Office, July 1, 1946).

Kurt Vonnegut, *Slaughterhouse-Five, or, The Children's Crusade: A Duty-Dance with Death* (New York: Delacorte, 1969).

The Nuclear Revolution and Weapons Effects

- Patrick Maynard Stuart Blackett, *Fear, [War and the Bomb: Military and Political Consequences of Atomic Energy](#)* (New York: Whittlesey House, 1949), 39-73. **Password protected PDF**
- Tom Demerly, "[80 Years Ago Today: The Japanese Secret Weapons Used at Pearl Harbor](#)," *The Aviationist*, December 7, 2021.
- Lawrence Freedman, "[The Strategy of Hiroshima](#)," *Journal of Strategic Studies* 1, no. 1 (May 1978): 76-97.
- Alexander Glaser, "[Effects of Nuclear Weapons](#)" (lecture slides, Princeton University, Princeton, NJ, February 12, 2009).
- Samuel Glasstone and Philip J. Dolan, "[The Effects of Nuclear Weapons. Third edition](#)," U.S. Department of Defense, 1977.
- John Hersey, "[Hiroshima](#)," *New Yorker* 22, no. 29 (August 31, 1946).
- Eva Lisowski, "[Grim Prospect: Low-Yield Nuclear Weapons in the Middle East](#)," Nonproliferation Policy Education Center, May 27, 2021.
- John Mueller, *Atomic Obsession: [Nuclear Alarmism from Hiroshima to Al-Qaeda](#)* (New York: Oxford University Press, 2010), 29-53. **Password protected PDF**
- Richard Muller, "[The Origins of MAD: A Short History of City-Busting](#)," in *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice*, ed. Henry Sokolski (Carlisle, PA: Strategic Studies Institute, 2004), 15-50.
- Keiji Nakazawa, *[Barefoot Gen](#)*, directed by Mori Masaki, July 21, 1983, 85 min, DVD. See especially the clip, "Hiroshima Destroyed."
- David Alan Rosenberg, "[The Origins of Overkill: Nuclear Weapons and American Strategy 1945-1960](#)," *International Security* 7, no. 4 (Spring 1983): 3-71. **Password protected PDF**
- Eric Schlosser, *[Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety](#)* (New York: Penguin Press, 2013), 83-88, 119-144. **Password protected PDF**
- Harry S. Truman, "[Annual Message to the Congress on the State of the Union](#)," January 7, 1953.
- Alex Wellerstein, "[Counting the dead at Hiroshima and Nagasaki](#)," *Bulletin of the Atomic Scientists*, August 4, 2020.
- Alex Wellerstein, "[The First Atomic Stockpile Requirements \(September 1945\)](#)," *Restricted Data: The Nuclear Secrecy Blog*, May 9, 2012.
- Alex Wellerstein, "[NUKEMAP](#)," *Restricted Data: The Nuclear Secrecy Blog*, 2013.
- Ward Wilson, "[The Bomb Didn't Beat Japan...Stalin Did](#)," *Foreign Policy*, May 29, 2013.

Civil Defense

Atomic Theater, "[Civil Defense Films](#)," accessed May 30, 2013.

Garrett Graff, [Raven Rock: The Story of the U.S. Government's Secret Plan to Save Itself--While the Rest of Us Die](#), Simon and Schuster, May 22, 2018.

Fred Charles Iklé, [The Social Impact of Bomb Destruction](#) (Norman, OK: University of Oklahoma Press, 1958).

National Security Resources Board, Civil Defense Office, [Survival Under Atomic Attack](#), NSRB Doc. 130 (Washington, DC: Government Printing Office, 1950).

National Security Resources Board, [United States Civil Defense](#) (Blue Book), NSRB Doc. 128. (Washington, DC: Government Printing Office, 1950).

War Department Civil Defense Board, [A Study of Civil Defense](#) (Bull Board Report) (Washington, DC, National Military Establishment, Office of the Secretary of Defense, February 1948).

Precision Guidance

James Digby, [Precision Guided Weapons](#), *Adelphi Paper* no. 118 (London: International Institute for Strategic Studies, 1975). **Password protected PDF**

Mark Gunzinger and Bryan Clark, [Maintaining the U.S. Military's Advantage in Precision Strike](#), Center for Strategic and Budgetary Assessments, 2015.

Michael Peck, "[The Nazi Smart Bombs that Inspired China's ship-killing Missiles](#)," *War is Boring* (blog), February 19, 2014.

Henry Sokolski, "[Dr. Strangelove's New Passion: Precision-Guided Mayhem](#)," *American Purpose*, March 17, 2021.

Jim Thomas, "[A Blueprint for Rebuilding America's Military After the Coronavirus](#)," *The National Interest*, March 28, 2020.

U.S. Department of Defense, [Discriminate Deterrence: Report of the Commission on Integrated Long-Term Strategy](#) (Washington, DC: Government Printing Office, 1988).

Uzi Rubin, "[Israel and the Precision-Guided Missile Threat](#)," The Begin-Sadat Center for Strategic Studies, June 16, 2020.

The Morality of City Busting

Justin Anderson, "[Law of War Considerations in Fielding Nuclear Forces](#)," *Arms Control Today* Vol. 46, September 2016.

Barton J. Bernstein, "[American Conservatives Are the Forgotten Critics of the Atomic Bombing of Japan](#)," *San Jose Mercury News*, August 2, 2014.

- William Burr, ed., "[U.S. Cold War Nuclear Target Lists Declassified for First Time](#)," *The National Security Archive*, December 22, 2015.
- Richard P. DiMeglio, et al., [Law of Armed Conflict Deskbook](#) ed. William J. Johnson and Andrew D. Gillman (Charlottesville, VA: United States Army Judge Advocate General's Legal Center and School, 2012).
- Alexander B. Downes, *Targeting Civilians in War*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell University Press, 2008), 1-12, 83-155.
- [Introduction](#): Password protected PDF
- [Chapter 3](#): Password protected PDF
- [Chapter 4](#): Password protected PDF
- Freeman Dyson, [Weapons and Hope](#) (New York: Harper and Row, 1984), 3-15, 286-295.
Password protected PDF
- A. C. Grayling, [Among the Dead Cities: The History and Moral Legacy of the WWII Bombing of Civilians in Germany and Japan](#) (New York: Walker and Company, 2006), 209-281. **Password protected PDF**
- Richard Gunderman, "[H.G. Wells vs. George Orwell: Their debate whether science is humanity's best hope continues today](#)," *The Conversation*, December 21, 2017.
- Max Hastings, [Retribution](#) (New York: Alfred A. Knopf, 2008).
- Zachary Keck, "[How Hiroshima and Nagasaki Saved Millions of Lives](#)," *The Diplomat*, August 7, 2014.
- Steven P. Lee, *Morality, [Morality Prudence, and Nuclear Weapons](#)*, Cambridge Studies in Philosophy and Public Policy (New York: Cambridge University Press, 1993).
- Jeffrey G. Lewis and Scott D. Sagan, "[The Common-Sense Fix that American Nuclear Policy Needs](#)," *The Washington Post*, August 24, 2016/.
- Matthew G. McKenzie, Thomas B. Cochran, Robert S. Norris, and William M. Arkin, "[Attacking Russian Cities: Two Countervalue Scenarios](#)" in *The U.S. Nuclear War Plan: A Time for Change* (Washington, DC, National Resources Defense Council, June 2001), 113-128.
- Katherine McKinney, Scott D. Sagan, "[Why the atomic bombing of Hiroshima would be illegal today](#)," *Bulletin of the Atomic Scientists*, Vol. 76, July 20, 2020.
- Wilson Miscamble, [The Most Controversial Decision](#) (New York: Cambridge University Press, 2011).
- Richard Overy, [The Bombers and the Bombed: Allied Air War Over Europe, 1940-1945](#) (New York: Viking, 2013).
- Daryl G. Press, Scott D. Sagan and Benjamin A. Valentino, "[Atomic Aversion: Experimental Evidence on Taboos, Traditions, and the Non-Use of Nuclear Weapons](#)," *American Political Science Review* 107, no. 1 (February 2013).

- Richard Price and Nina Tannenwald, "[Norms and Deterrence: The Nuclear and Chemical Weapons Taboos](#)," in *The Culture of National Security: Norms and Identity in World Politics*, ed. Peter J. Katzenstein (New York: Columbia University Press, 1996), 114-152. **Password protected PDF**
- Scott Sagan and Benjamin Valentino, "[Revisiting Hiroshima in Iran](#)," *International Security* 42, no. 1 (Summer 2017): 41-79.
- Ronald Schaffer, "[American Military Ethics in World War II: The Bombing of German Civilians](#)," *Journal of American History* 67, no. 2 (September 1980): 318-324. **Password protected PDF**
- Joseph Trevithick, "[America Nearly Attacked Japan with Chemical Weapons in 1945](#)," *War is Boring*, June 10, 2016.
- Alex Wellerstein, "[A 'purely military' target? Truman's changing language about Hiroshima](#)," *Restricted Data: The Nuclear Security Blog*, January 19, 2018.
- H.G. Wells, [The World Set Free: A Story of Mankind](#) (London: Macmillan & Co., 1914).
- Ward Wilson, "[Did bombing Hiroshima and Nagasaki save lives?](#)" *Beyond Nuclear International*, August 13, 2018.

2. NUCLEAR DETERRENCE

REQUIRED READINGS

- William Burr, ed., "[How Much is Enough?: The U.S. Navy and 'Finite Deterrence,'](#)" *National Security Archive*, Electronic Briefing Book No. 275, May 1, 2009.
- Sir Michael Quinlin, [Easements and Escape Routes](#), in *Thinking About Nuclear Weapons* (Oxford: Oxford University Press, 2009): 99-104. **Password Protected PDF**
- Henry Sokolski, [Nuclear Deterrence Lecture Notes](#), Nonproliferation Policy Education Center. September 2021.
- Albert Wohlstetter, [The Delicate Balance of Terror](#), paper P-1472 (Santa Monica, CA: RAND Corporation, November 6, 1958).

RECOMMENDED READINGS

First Thoughts on Nuclear Deterrence

- William L. Borden, [There Will Be No Time: The Revolution in Strategy](#) (New York: The Macmillan Company, 1946).
- Bernard Brodie, ed., [The Absolute Weapon: Atomic Power and World Order, preliminary draft for Restricted Distribution](#), February 15, 1946 (New Haven, CT: Yale Institute of International Studies, 1946), 14-89.
- J. Franck, et al. "[The Franck Report](#)," reprinted in Alice Kimball Smith, *A Peril and a Hope* (Chicago: University of Chicago Press, 1965), 560-565. **Password Protected PDF**
- Zay Jefferies, et al., "[Prospectus on Nucleonics \(The Jeffries Report\)](#)," reprinted in Alice Kimball Smith, *A Peril and a Hope* (Chicago: University of Chicago Press, 1965), 539-559. **Password Protected PDF**
- Dexter Masters and Katherine Way, ed., [One World or None](#). (New York: McGraw-Hill, 1946). **Password Protected PDF**
- National Committee on Atomic Information, "[One World or None](#)," filmed 1946, YouTube video, posted by FA Scientists, 9:12, posted August 5, 2013.
- Louis N. Ridenour, "[There is No Defense](#)," in *One World or None*, ed. Dexter Masters and Katherine Way (New York, NY: McGraw-Hill, 1946). **Password Protected PDF**
- Alice Kimball Smith, *A Peril and a Hope: The Scientists' Movement in America, 1945-47* (Chicago: University of Chicago Press, 1965).
- [Part 1 and 2](#): **Password Protected PDF**
- [Part 3](#): **Password Protected PDF**
- [Part 4](#): **Password Protected PDF**

Jacob Viner, "[The Implications of the Atomic Bomb for International Relations](#)," in *Symposium on Atomic Energy and its Implications: Papers read at the joint meeting of the American Philosophical Society and the National Academy of Sciences, November 16 and 17, 1945* (Philadelphia: American Philosophical Society, 1946). **Password Protected PDF**

Robust Nuclear Deterrence: Requirements and Practice

[Always Never, the Quest for Safety, Control, and Survivability](#). YouTube video by the National Security Archive, December 23, 2014.

Keith B. Payne, "[Why Do US Nuclear Force Numbers Matter for Deterrence?](#)" *National Institute for Public Policy*, Information Series no. 404, March 9, 2016.

Glenn H. Snyder, "[Deterrence and Defense](#)," reprinted in Robert J. Art and Kenneth N. Waltz, eds., *The Use of Force: International Politics and Foreign Policy* (New York: University Press of America, 1983), 56-76. **Password Protected PDF**

Albert Wohlstetter, Fred S. Hoffman, Robert J. Lutz and Henry S. Rowen, [Selection of Strategic Air Bases](#), special staff report R-244-S (Santa Monica, CA: RAND Corporation, March 1, 1953), and special staff report [R-266](#) (Santa Monica, CA: RAND Corporation, April 1954).

Albert Wohlstetter, Fred S. Hoffman and Henry S. Rowen, [Protecting U.S. Power to Strike Back in the 1950's and 1960's](#), staff report R-290 (Santa Monica, CA: RAND Corporation, September 1, 1956), top secret, declassified circa mid-1960s.

Roberta Wohlstetter, [Pearl Harbor: Warning and Decision](#) (Stanford, CA: Stanford University Press, 1962).

William C. Yengst, et al., "[Nuclear Weapons that Went to War](#)," draft final report DNA-TR-96 (Alexandria, VA: Defense Special Weapons Agency, October 1996).

Origins of "Finite Deterrence"

Commander P.H. Backus, "[Finite Deterrence, Controlled Retaliation](#)," *United States Naval Institute Proceedings* 85, no. 3 (March 1959), 23-29.

Pierre Marie Gallois, [Strategie de l'age nuclear](#) (Paris: Francois-Xavier de Guibert, 1960).

David Alan Rosenberg, "[The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960](#)," in *Strategy and Nuclear Deterrence: An International Security Reader*, ed. Steven E. Miller (Princeton, NJ: Princeton University Press, 1984), 113-181. **Password Protected PDF**

Harvey Sapolsky, "[The U.S. Navy's Fleet Ballistic Missile Program and Finite Deterrence](#)," in Henry Sokolski, ed. *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practices* (Carlisle, PA: Strategic Studies Institute, 2004), 123-135.

Henry D. Sokolski, ed., [Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice](#) (Carlisle, PA: Strategic Studies Institute, November 2004).

Bruno Tertrais, "['Destruction Assurée': The Origins and Development of French Nuclear Strategy](#)," in *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice*, ed. Henry Sokolski (Carlisle, PA: Strategic Studies Institute, 2004), 51-122.

David S. Yost, "[France's Nuclear Deterrence Strategy: Concepts and Operations Implementation](#)," in *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice*, ed. Henry Sokolski (Carlisle, PA: Strategic Studies Institute, 2004), 197- 237.

Proliferation: A Plus or Minus for Deterrence?

Matthew Fuhrmann, "[Preventive War and the Spread of Nuclear Programs](#)," NPEC Working Paper 1221, (Arlington, VA: Nonproliferation Policy Education Center, June 28, 2012).

Steven Kidd, "[Nuclear proliferation risk – is it vastly overrated?](#)" *Nuclear Engineering International*, July 23, 2010.

Matthew Kroenig, "[The History of Proliferation Optimism: Does It Have a Future?](#)" in *Moving Beyond Pretense: Nuclear Power and Nonproliferation* (Carlisle, PA: Strategic Studies Institute, 2014), 45-89.

John Mueller, "[Deterring World War III: Essential Irrelevance](#)" in *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al Qaeda* (New York, NY: Oxford, 2010), 29-42. **Password Protected PDF**

Bruce Mueno de Mesquita and William Riker, "[An Assessment of the Merits of Selective Nuclear Proliferation](#)," *Journal of Conflict Resolution* 26, no. 2 (1982): 283-306.

Scott Sagan and Kenneth Waltz, [The Spread of Nuclear Weapons: A Debate](#) (New York: W.W. Norton, 1995).

Henry D. Sokolski, ed., "[Should We Let the Bomb Spread?](#)" (Carlisle PA: Strategic Studies Institute, 2016).

Accidents and Illicit Use

Peter Burt, [Playing With Fire: Nuclear Weapons Incidents and Accidents in the United Kingdom](#) (Reading, UK, Nuclear Information Service, February 2017).

Scott Sagan, "[Perils of Proliferation: Organization Theory, Deterrence Theory, and the Spread of Nuclear Weapons](#)," *International Security* 18, No. 4 (Spring 1994).

Scott Sagan, [The Limits of Safety: Organizations, Accidents, and Nuclear Weapons](#) (Princeton: Princeton University Press, 1995).

Eric Schlosser, [*Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety*](#) (New York: Penguin Press, 2013).

Eric Schlosser, "[World War Three, by Mistake,](#)" *The New Yorker*, December 23, 2016.

Tactical Nuclear Weapons and First Use

Elbridge Colby, "[Russia's Evolving Nuclear Doctrine and its Implications,](#)" *Foundation pour la Recherche Stratégique*, No. 1 (January 2016).

Michael Krepon, "[Not Just Yet for No First Use,](#)" *Arms Control Wonk* (blog), July 31, 2016.

Fredrik Logevall, "['We Might Give Them a Few.' Did the US Offer to Drop Atom Bombs at Dien Bien Phu?](#)" *Bulletin of the Atomic Scientists*, February 21, 2016.

Jeffrey D. McCausland, "[Pakistan's Nuclear Weapons: Operational Myths and Realities,](#)" Stimson Center Analysis, March 10, 2015.

Clark Murdock, et al., "[Project Atom: A Competitive Strategies Approach to Defining U.S. Nuclear Strategy and Posture for 2025-2050,](#)" CSIS Reports, Center for Strategic & International Studies, May 2015.

Sir Michael Quinlin, "[Easements and Escape Routes,](#)" in *Thinking About Nuclear Weapons* (Oxford: Oxford University Press, 2009): 99-111. **Password Protected PDF**

Josh Rogin, "[U.S. Allies Unite to Block Obama's Nuclear 'Legacy',](#)" *The Washington Post*, August 14, 2016.

Scott Sagan, "[The Case for No First Use,](#)" *Survival* 51, No. 3 (June-July 2009): 163-182.

Mark Schneider, "[The Nuclear Forces and Doctrine of the Russian Federation](#)" (Fairfax, VA: National Institute Press, 2006).

What Might Nuclear Deterrence Require Today?

William Burr, "[SAC Nuclear Planning for 1959,](#)" The National Security Archive, December 22, 2015

Brian Chow, "[Stalkers in Space: Defeating the Threat,](#)" *Strategic Studies Quarterly* (Summer 2017): 82-116.

Benjamin Friedman, Christopher Preble, and Matt Fay, "[The End of Overkill: Reassessing U.S. Nuclear Weapons Policy,](#)" *CATO Institute*, 2013.

Michael S. Gerson, "[The Origins of Strategic Stability: The United States and the Threat of Surprise Attack,](#)" in Elbridge A. Colby and Michael S. Gerson, eds., *Strategic Stability: Contending Interpretations* (Carlisle PA: Strategic Studies Institute, 2013), 1-46.

Victor Gilinsky, "[What if the taboo on nuclear weapon use is broken,](#)" Paper prepared for 15th PIIC Beijing Seminar, October 16, 2016.

Peter Huessy, "[In Defense of the Nuclear Triad,](#)" *Defense One*, October 18, 2013.

Keith Payne and Matthew Costlow, "[Nuked: Destroying the Myth of Minimum Deterrence,](#)" *The National Interest*, December 12, 2014.

Sara Scoles, "[New Space Robots Will Fix Satellites, Or Maybe Destroy Them,](#)" *Wired*, September 10, 2018.

Harold Smith and Raymond Jeanloz, "[Britain Leads the Way to Global Zero,](#)" *Arms Control Today* 40, no. 10 (December 2010).

Madina Ali Zamani, "[New Wars and the Fallacies of Traditional Deterrence Approaches,](#)" *Modern Diplomacy*, August 30, 2020.

How Effective Is Nuclear Deterrence?

Paul Bracken, [The Second Nuclear Age: Strategy, Danger, and the New Power Politics](#) (New York: Times Books, 2012).

Chris Ford, "[The Future of Nuclear Deterrence,](#)" *Hudson Institute*, March 17, 2011.

Matthew Furfman and Todd S. Sechser, [Nuclear Weapons and Coercive Diplomacy](#), (Cambridge: Cambridge University Press, 2017).

Victor Gilinsky, "[On Tickling the Dragon's Tail,](#)" *Bulletin of the Atomic Scientists*, February 26, 2016.

Robert Jervis, [The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon](#) (Ithaca: Cornell University Press, 1989).

Tod Lindberg, "[Nuclear and Other Retaliation After Deterrence Fails,](#)" in Henry D. Sokolski, ed., *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice* (Carlisle, PA: Strategic Studies Institute, 2004), pp. 317-339.

John Mueller, "[Nuclear Weapons Don't Matter,](#)" *Foreign Affairs*, October 15, 2018.

Sebastien Roblin, "[Madmen With Nuclear Codes — An History of Unpredictable Foreign Policy,](#)" *War is Boring*, November 22, 2016.

Ward Wilson, "[The Myth of Nuclear Deterrence,](#)" *Nonproliferation Review* 15, no. 3 (November 2008): 421-439.

William C. Yengst, et al., "[Nuclear Weapons that Went to War,](#)" draft final report DNA-TR-96 (Alexandria, VA: Defense Special Weapons Agency, October 1996).

3. NUCLEAR ENERGY BASICS, PART 1: FISSION, FUSION AND BOMB DESIGNS

REQUIRED READINGS

Henry Sokolski, [*Nuclear Energy Basics, Part 1: Fission, Fusion, and the Bomb*](#), Nonproliferation Policy Education Center. September 2020.

Sutherland Productions and General Electric, [A is for Atom, B is for Bomb](#) Daily Motion video, 14:44, from a film produced in 1953, posted by "Propaganda Hound," November 2, 2008.

RECOMMENDED READINGS

Histories of the First Bombs

Jim Baggott, [The First War of Physics: The Secret History of the Atom Bomb, 1939-1949](#) (New York: Pegasus Books, 2010).

Kai Bird and Martin J. Sherwin, [American Prometheus: The Triumph and Tragedy of J. Robert Oppenheimer](#), Vintage Books, May 1, 2006.

Thomas B. Cochran, Robert S. Norris, and Oleg A. Bukharin, [Making the Russian Bomb: From Stalin to Yeltsin](#) (Boulder, Colorado: Westview Press, 1995).

Albert Einstein, [Albert Einstein to President Franklin D. Roosevelt \(letter\)](#), August 2, 1939.

Jon Else, David Webb Peoples, and Janet Peoples, [The Day after Trinity: J. Robert Oppenheimer and the Atomic Bomb](#), directed by Jon H. Else (Pyramid Films, 1981), 1:28:57.

Graham Farmelo, [Churchill's Bomb: How the United States Overtook Britain in the First Nuclear Arms Race](#) (New York: Basic Books, 2013).

Kenneth W. Ford, [Building the H Bomb: A Personal History](#) (Hackensack, NJ: World Scientific Publishing Co., 2015).

O.R. Frisch and R. Peierls, [Memorandum on the Construction of a 'Super-bomb' based on a Nuclear Chain Reaction in Uranium](#), March 1940.

David Holloway, [Stalin and the Bomb: The Soviet Union and Atomic Energy, 1939-1956](#) (New Haven: Yale University Press, 1994).

John McPhee, [The Curve of Binding Energy](#) (Westminster, MD: Ballantine Books, 1975).

Richard Rhodes, [Dark Sun: The Making of the Hydrogen Bomb](#) (New York: Simon and Schuster, 1995).

Richard Rhodes, [The Making of the Atomic Bomb](#) (New York: Simon and Schuster, 1986).

Robert Serber, [*The Los Alamos Primer: The First Lectures on How to Build An Atomic Bomb*](#), (Berkeley: University of California Press, 1972), Sections 20-22.

Weapons Physics and Design

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