

IDIS 393
Dr. Andrew K. Semmel
asemmel@moravian.edu or andsemm@aol.com
Nuclear Proliferation, Weapons and Energy Policy
Spring 2009
Mondays 6:30 – 9:30 PM

The principal subject we will address in this course is the proliferation of nuclear weapons. Proliferation can take different forms: (1) the accumulation and improvement of weapons by states that already have them (“vertical”), (2) the acquisition of weapons by new states that do not have them (“horizontal”), and (3) the acquisition of weapons by non-state or terrorist groups. Vertical proliferation is generally associated with the Cold War, but re-occurs in the post-Cold War in efforts by nuclear weapons states to improve the sophistication, rather than the numbers, of their weapons. Since September 11, 2001, attention has shifted to the latter two forms of proliferation -- horizontal proliferation and proliferation to non-state actors. The course will reflect this shift.

The course will examine various proposals, institutions, and policies that attempt to deal with or prevent proliferation. Historically, vertical proliferation has been countered by “arms control” efforts, a process that can either be a step in the direction of disarmament or an alternative to disarmament. Horizontal proliferation has been approached principally through the standards set by the Nuclear Nonproliferation Treaty (NPT) and the International Atomic Energy Agency (IAEA) whose main goal is to prevent the spread of nuclear weapons to non-nuclear weapon states. Some aspects of the NPT have been extended to deal with the proliferation involving non-state actors such as efforts to improve the physical protection of nuclear materials and to limit access to nuclear technology. Since 9/11, the new concept of “counter-proliferation” has been introduced; it refers to the use of intelligence information, interdiction, and the use of coercive or preemptive force.

This course has two broad purposes: to define and delineate the problem of nuclear proliferation and to examine its roots, institutions, evolution, current status, and challenges to the nuclear nonproliferation regime in which the NPT lies at its core. We will also discuss the prospects for a “nuclear renaissance”, i.e., the anticipated growth in nuclear power generation and the implications for weapons proliferation. The course will have a strong policy-oriented focus.

The following 3 books are required for the course:

Deadly Arsenals (DA), Joseph Cirincione, et al. 2nd ed. (Carnegie Endowment, 2005). Paperback
Atoms for Peace (AFP), Joseph F. Pilat, ed. Woodrow Wilson Center Press, 2007. Paperback
World at Risk (WAR), The Report of the Commission on the Prevention of WMD Proliferation and Terrorism. Vintage Books. December 2008. Paperback. Also at: <http://>

Recommended:

Bomb Scare (BS), Joseph Cirincione, (Columbia University Press, 2007). Paperback

Students are responsible for attending all classes, to read the assignments prior to class, to follow current developments in nuclear and nuclear related issues, and to come to class ready to participate actively in class discussion. Each student will prepare a short (NMT 10 pages) analytical paper on a topic relevant to the course, after agreeing on the topic with me by the fourth class session. Each student will

also prepare a draft Opinion Editorial (op-ed.) for submission to a newspaper advocating an aspect of nonproliferation policy. The piece should be between 600 and 800 words and is due on or before the tenth class session. The final few sessions will be devoted, in part (NMT 5 minutes), to brief oral presentations of student papers. The final grade will be determined primarily by the quality of class participation, two short written products (paper & op-ed.), the presentation of the research paper, and a final examination. One question on the final exam will be: draft a Memorandum to the President outlining the three most important issues facing U.S. nuclear nonproliferation today.

Readings

JANUARY 19: **INTRODUCTION AND OVERVIEW**

- Pilat, "Introduction" pp.1-14.
- Pilat, "Acronyms and Abbreviations" pp. xvii-xix.
- Cirincione, DA, Chapter 1
- WAR, pp. xv-xxxviii

JANUARY 26: **THE ROOTS OF PROLIFERATION: WHY DO STATES WANT NUCLEAR WEAPONS?**

- Sagan, Scott, "Why Do States Build Nuclear Weapons? International Security, 1996-7, Vol.21, #3, pp. 54-86. Available on Blackboard
- Erdogan, Ibrahim, "Why Do States 'Go Nuclear': The Iran Nuclear Program Re-visited", Turkish Weekly, November 25, 2008. Available on Blackboard
- WAR, pp. 3-20
- Cirincione, BS. Chapters 4 and 5
- National Strategy to Combat weapons of Mass Destruction – Presidential Report. Found at: <http://whitehouse.gov/news/releases/2002/12/WMDStrategy.pdf>

FEBRUARY 2: **FISSILE MATERIALS, NUCLEAR WEAPONS AND RADIATION**

- Cirincione, DA. Chapter 3
- Cirincione, DA. Appendix F "Glossary"
- Cirincione, BS. Chapter 1
- "The Nuclear Fuel Cycle" Found at: <http://www.world-nuclear.org/info/inf03.html>

FEBRUARY 9: **THE NUCLEAR NONPROLIFERATION TREATY (NPT)**

- Cirincione, DA. Chapter 2
- Cirincione, DA, Appendix A "The Treaty on the Nonproliferation of Nuclear Weapons" pp, 421-426, OR in Pilat, Appendix 3, pp. 268-274.
- Pilat, Part I, Number 5, (Reiss).
- Rauf and Johnson, "After the NPT's Indefinite Extension" Found at: <http://cns.miis.edu/pubs/npr/pdfs/raufjo31.pdf>
- Bunn, George and John B. Rhinelander, "Looking Back: The Nuclear Nonproliferation Treaty Then and Now" Arms Control Today, July-August 2008. Found at: http://www.armscontrol.org/act/2008_07-08/lookingback.asp.
- Cirincione, BS. Chapters 2 and 3.

---Broad, William J. "Hidden Travels of the Atomic Bomb," *New York Times*, December 8, 2008. Found at <http://www.nytimes.com/2008/12/09/science/09Bomb.html?scp=21&sq=broad,%20william%20j.%20009&st=ce> or Available on Blackboard

FEBRUARY 16 **THE NUCLEAR NONPROLIFERATION TREATY (NPT) - CONTINUED**

---Pilat, Part I, Number 4, (Rademaker).

---Pilat, Appendix 6. "President Announces New Measures to Counter the Threat of Proliferation" -----

---Lawrence Scheinman, "Disarmament: Have the Five Nuclear Powers Done Enough?" *Arms Control Today*, Found at: <http://www.armscontrol.org/print/1740>.

---Wulf, N. "Observations from the 2000 NPT Review Conference" Found at: http://www.armscontrol.org/act/2000_11/wulf.asp

(NOTE: PAPER PROPOSALS ARE DUE BY CLASS TIME TODAY)

FEBRUARY 23: **INTERNATIONAL REGIMES, ORGANIZATION AND AGREEMENTS: IAEA, NSG, UNSCR 1540, OTHERS**

---Pilat, Appendix 1. "Atomic Power for Peace"

---Pilat, Part I, Number 2 (Schlesinger)

---Pilat, Appendix 2. "Statute of the International Atomic Energy Agency"

---WAR, "International Nonproliferation/Counterproliferation Treaties, Regimes and Initiatives" 122-125.

---Cirincione, DA. Appendix D (Nuclear Supplier Group)

---Semmel, A. "UN Security Council Resolution 1540: The U.S. Perspective" (2004), Found at:

<http://www.state.gov/t/isn/rls/rm/38256/html>.

March 2: NO CLASS

March 9: **RUSSIA, LOOSE NUKES AND COOPERATIVE THREAT REDUCTION**

---Walker, Paul, "Nunn-Lugar at 15: No Time to Relax Global Threat Reduction Efforts. *Arms Control Today*, May 2006. Found at: www.armscontrol.org/act/2006_05/nunn-lugar15.

---Cirincione, DA. Chapter 6 (Russia) and Chapter 18 (Non-Russian Successor States...)

---WAR, "Cooperative Nuclear Security Programs" pp.56-61.

---War, "Russian and the United States", pp. 76-81.

---Semmel, A. "Effective Multilateralism: The U.S. Strategy for Dealing with Global Nuclear Proliferation", (2005) Found at: <http://state.gov/t/isn/rls/rm/56942.html>

MARCH 16: **NUCLEAR ENERGY: PROSPECTS AND PERILS**

---Squassoni, Sharon, "Nuclear Renaissance: Is it Coming? Should it?" Carnegie Endowment, October 2008, (http://carnegieendowment.org/files/nuclear_renaissance1.pdf)

---Pilat, Part II: Numbers 8 (Litwak), 9 (Levite), 13 (Holgate).

MARCH 23: **NUCLEAR ENERGY: PROLIFERATION AND TERRORISM**

---Allison, Graham, "The Ongoing Failure of Imagination", Bulletin of Atomic Scientists, Sept/Oct, 2006. Available on Blackboard.

---Totty, Michael, "The Case For and Against Nuclear Power" The Wall Street Journal, June 30, 2008, (<http://online.wsj.com/article/SB121432182593500119.html>).

---Perry, William, et al. "After the Bomb" New York Times, June 12, 2007. (<http://NYTimes.com/2007/06/12/opinion/12carter.html>)

---Pilat, Part III, Number 15 (Domenici), 16 (Suzuki), 17 (Bouchard), 19 (Lester)

---WAR, pp. "Nuclear Proliferation and Terrorism" 43-55.

MARCH 30: **CHALLENGES OUTSIDE THE REGIME: INDIA, PAKISTAN AND ISRAEL**

---Cirincione, DA. Chapters 11 (India), 12 (Pakistan), and 13 (Israel)

---Cohen A. and T. Graham. "An NPT for Non-Members". Bulletin of Atomic Scientists, May/June 2004, Available on Blackboard

---WAR, "Pakistan" pp.65-75.

April 6: **CHALLENGES INSIDE THE REGIME: NORTH KOREA AND IRAN**

---Cirincione, DA. Chapters 14 (North Korea), 15 (Iran)

---Pilat, Part II, Number 10 (Choi Young-jin)

---WAR. "Country Specific Challenges..." pp. 61-64.

APRIL 13: **COUNTERPROLIFERATION AND IRAQ AND LIBYA**

---Cirincione, DA. Chapters 17 (Iraq) and 16 (Libya)

---Steinbruner, John, "Confusing Ends and Means: The Doctrine of Coercive Pre-emption" Found at: http://armscontrol.org/act/2003_01-02/steinbruner_janfeb03.asp

APRIL 20: **ARMS CONTROL, DISARMAMENT AND VERIFICATION & STUDENT PRESENTATIONS**

---Daalder, Ivo and Jan Lodal, "The Logic of Zero" Foreign Affairs, November/December 2008, pp. 80-95. Found at: <http://www.foreignaffairs.org/20081001faessay87606/ivo-daadler-jan-lodal/nuclear-policy-and-the-next-administration.html>

---Perkovich, George. "Abolishing Nuclear Weapons: Why the United States Should Lead", Carnegie Endowment, Oct. 2008. At: http://www.carnegieendowment.org/files/abolishing_nuclear_weapons.pdf.

---George Schultz, et al., "Toward a Nuclear Free World" The Wall Street Journal, January 15, 2008. Found at: http://online.wsj.com/public/article_print/SB120036422673589947.html

---George Schultz, et al., "A World Free of Nuclear Weapons" The Wall Street Journal, January 4, 2007, Found at: http://www.fcni.org/issues/item.php?item_id=22528&issue_id=54.

---Cirincione, DA, Appendix E, "The Comprehensive Nuclear Test Ban Treaty"

---Cirincione, BS. Chapters 6, 7, 8, and "Afterword."

APRIL 27: **WRAP-UP AND STUDENT PRESENTATIONS**

Useful Websites**Web Address**

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| Union of Concerned Scientists | www.ucusa.org |
| Federation of American Scientists | www.fas.org |
| Nuclear Control Institute | www.nci.org |
| The Nonproliferation Review | cns.miis.edu/pubs/npr/ |
| Ballistic Missile Defense Organization | www.acq.osd.mil/bmdo/ |
| Stockholm International Peace Research Institute | www.world-nuclear.org |
| World Nuclear Association | www.nei.org |
| Carnegie Endowment for International Peace | www.ceip.org/npp |
| Bulletin of the Atomic Scientists | www.thebulletin.org |
| Arms Control Today | www.armscontrol.org |
| American Nuclear Society (Nuclear News) | www.ans.org |
| Nuclear Threat Initiative | www.nti.org |
| Global Security | http://globalsecurity.org |
| Acronym Institute for Disarmament Diplomacy | www.acronym.org.uk/ |
| Institute for Science and International Security | www.isis-online.org |
| International Atomic Energy Agency | www.iaea.org/worldatom |
| Natural Resources Defense Council | www.nrdc.org |
| The Inventory of International Nonproliferation Organizations and Regimes | http://cns.miis/pubs/inven/index.htm |
| Russian-American Nuclear Security Advisory Council | www.ransac.org |