SPRING 2004 FRESHMAN SEMINAR Mon., Wed., 1:15-3:05 Wallenberg Hall Room 120

DAVID HOLLOWAY Office hours: Friday, 1:30-3:30 Room C442, Encina Hall Tel: 3-1737 e-mail: david.holloway@stanford.edu

THE CHALLENGE OF NUCLEAR WEAPONS

This course examines the way in which states, individually and collectively, have responded to the challenges posed by nuclear weapons. The atomic bomb was developed during World War II, the most destructive war in history. In the aftermath of Hiroshima there were many who believed that, unless the bomb was abolished or international states system reformed in a fundamental way, catastrophic nuclear war was inevitable. But the bomb has not been abolished, and states still exist. How then have we avoided nuclear war? And will the approaches that we have taken to avoiding nuclear war in the past still work in the future? These questions have become especially topical in the last year, with the war in Iraq, the crisis on the Korean Peninsula, and the tension between India and Pakistan.

Course Materials

There are two required books for the course:

- Jonathan Schell, <u>The Fate of the Earth and the Abolition</u>, Stanford University Press, 2000.
- Sidney D. Drell and James E. Goodby, <u>The Gravest Danger: Nuclear</u> <u>Weapons</u>, Hoover Institution Press, 2003.

Most readings are available on the web or in a reader available from the Stanford Bookstore.

There are many websites with useful information about nuclear weapons, nuclear policies and nuclear issues. Among the useful ones are:

- The Carnegie Endowment for International Peace. http://www.ceip.org/

- The Monterey Institute for International Studies, Center for Non-Proliferation. <u>http://cns.miis.edu/</u>
- The Nuclear Threat Initiative. <u>http://www.nti.org/</u>
- Global Security <u>http://globalsecurity.org</u>
- The Center for International Security and Cooperation, Stanford University <u>http://cisac.stanford.edu/</u>
- The Federation of American Scientists http://www.fas.org/
- The International Atomic Energy agency <u>http://www.iaea.org</u>
- The Institute for Science and International Security <u>http://www.isis-online.org/</u>

Course Requirements

Students will be expected to write a paper of about twenty pages, on a topic to be agreed with the instructor. Students will also be expected to make presentations in class, and to take part in debates. Attendance at class is required; the course grade will be affected by participation in class discussions. The final grade will be based on the papers (70 per cent) and the class discussion (30 per cent).

Class Schedule

Week One: Introduction

<u>March 31</u>: What are nuclear weapons? How did they come into existence? How destructive are they? What kind of challenge do they pose to the human race? How has that challenge been interpreted? What responses have been adopted?

- The Frisch/Peierls Memoranda of March 1940, in Robert Serber, <u>The Los</u> <u>Alamos Primer</u>, (University of California Press, 1992) pp. 79-88.
- Lynn Eden, "City on Fire," <u>The Bulletin of the Atomic Scientists</u>, Jan-Feb 2004, pp. 33-43, at <u>http://www.thebulletin.org/issues/2004/jf04/jf04eden.html</u>
- The Federation of American Scientists provides basic information about nuclear weapons. <u>http://www.fas.org/nuke/intro/nuke/index.html</u>

Week Two: Two Current Crises: Iraq and North Korea

<u>April 5</u>: What attempts did Iraq make to build nuclear weapons? Why would an Iraqi nuclear program be unacceptable to the international community? What can we say about intelligence and the decision to go to war against Iraq?

- <u>Iraq's Weapons of Mass Destruction</u>. The Assessment of the British <u>Government</u>, December 2002, at <u>http://www.officialdocuments.co.uk/document/reps/iraq/iraqdossier.pdf</u>
- President Bush's remarks on 3/17/03, at http://www.whitehouse.gov/news/releases/2003/03/20030317-7.html
- <u>Report of the Carnegie Endowment for International Peace. WMD in Iraq:</u> <u>Evidence and Implications</u> (January 2004), pp. 1-61, at <u>http://www.ceip.org/files/projects/npp/resources/iraqintell/home.htm</u>
- David Kay's Testimony to the Senate Armed Services Committee, January 28, 2004 at www.ceip.org/files/projects/npp/pdf/Iraq/kaytestimony.pdf

<u>April 7</u>: What attempts has North Korea made to build nuclear weapons? Why has the North Korean nuclear program been unacceptable to the international community? Why is this a crisis? What policy should the US pursue to try to end the crisis?

- Ashton B. Carter and William J. Perry, <u>Preventive Defense</u> (Brookings, 1999) pp. 123-142.
- Michael Armacost, Daniel Okimoto, Gi-Wook Shin, <u>Addressing the North</u> <u>Korea Nuclear Challenge</u>, Asia-Pacific Research Center, 2003, at <u>http://iis-db.stanford.edu/viewpub.lhtml?pid=20180&cntr=aparc</u>
- A good deal of information about the North Korean nuclear program is available at <u>http://globalsecurity.org/wmd/world/dprk/index.html</u>

Week Three: Hiroshima

<u>April 12</u>: Nuclear weapons have been used only twice as weapons of war. Why and how did the United States decide to drop atomic bombs on Hiroshima and Nagasaki?

- McGeorge Bundy, <u>Danger and Survival</u>, Vintage Books, 1990, pp. 54-97.
- Barton Bernstein, "The Atomic Bombings Reconsidered," <u>Foreign Affairs</u>, Jan/Feb 1995, pp. 135-152.
- Michael Walzer, Just and Unjust Wars (Basic Books, 1977) pp. 251-267.

<u>April 14</u>: There are different ways to approach the history of nuclear weapons. One important approach is through documentary film. We shall watch and discuss a film about J. Robert Oppenheimer, the director of Los Alamos Laboratory during World War II.

- The Day after Trinity

Week Four: The Failure of International Control and the Emergence of Deterrence

<u>April 19</u>: During World War II some of the key individuals in the Manhattan Project made recommendations designed to head off a postwar nuclear arms race. After the war negotiations were held under UN auspices to bring atomic energy under international control.

- Abraham Pais, Niels Bohr's Times (Oxford U.P.) 1991, pp. 479-508.
- The Franck Report (<u>www.atomicarchive.com/Docs/Franck.shtml</u>)
- The Acheson-Lilienthal Report, at http://www.learnworld.com/ZNW/LWText.Acheson-Lilienthal.html
- <u>The Baruch Plan (www.nuclearfiles.org/docs/1946/460614-baruch.html)</u>

<u>April 21</u>: The theory of deterrence began to develop in response to the assumptions underlying the effort at international control of atomic energy.

- Jacob Viner, "The Implications of the Atomic Bomb for International Relations," in Viner, <u>International Economics</u> (The Free Press, 1951) pp. 300-309.
- Albert Wohlstetter, "The Delicate Balance of Terror," <u>Foreign Affairs</u>, January 1959, pp. 211-234.
- Thomas Schelling, "The Threat That Leaves Something to Chance," in his <u>Strategy of Conflict</u> (Oxford U.P., 1963), pp. 187-203.

Week Five: Critiques of Deterrence

<u>April 26</u>: One of the criticisms of deterrence theory is that it treats the problem of nuclear war in a very abstract way. Several films have been made to bring home to people what a nuclear war would be like.

- <u>The War Game</u> (BBC, 1968)

<u>April 28</u>: Film is of course not the only medium that tries to convey the reality of nuclear war.

- Schell, <u>The Fate of the Earth</u>

Week Six: Nuclear Crises and Arms Control

May 3: The Cuban Missile Crisis was the most dangerous of the nuclear crises.

- Bundy, op.cit., pp. 390-462.
- Correspondence between Nikita Khrushchev and Fidel Castro.

<u>May 5</u>: Beginning in the late 1950s the United States and the Soviet Union adopted measures of crisis management and signed arms control treaties in the effort to present nuclear war.

- Lawrence Freedman, <u>The Evolution of Nuclear Strategy</u> (Macmillan 1981) pp. 190-207.
- Alexander George, "U.S.-Soviet Efforts to Cooperate in Crisis Management and Crisis avoidance," in Alexander George, Philip J. Farley and Alexander Dallin, eds., <u>U.S.-Soviet Security Cooperation</u>, (Oxford U.P., 1988) pp. 581-599.
- Philip J. Farley, "Strategic Arms Control, 1967-87," in Alexander George et al., op.cit., pp. 215-253.

Week Seven: Defenses and Abolition

<u>May 10</u>: How feasible are defenses against nuclear weapons? One major debate took place in the early 1980s – the "Star Wars" debate.

- Fred S. Hoffman, "The SDI in U.S. Nuclear Strategy," <u>International Security</u>, Summer 1985 (available through JSTOR)
- Sidney D. Drell, Philip J. Farley, and David Holloway, "Prerving the ABM Treaty," <u>International Security</u> Fall 1984, (available through JSTOR)

May 12: Proposals for the abolition of nuclear weapons.

- George Shultz, "What Really Happened at Reykjavik," in his <u>Turmoil and</u> <u>Triumph</u> (Scribner's, 1993) pp. 751-780.
- Schell, The Abolition
- Canberra Commission on the Elimination of Nuclear Weapons (www.dfat.gov.au/cc/cchome.html)

Week Eight: Proliferation and its Effects

<u>May 17</u>: Why do states acquire nuclear weapons? What impact does the spread of nuclear weapons have on international politics and the risk of war? What efforts have been undertaken to prevent the spread of nuclear weapons?

- Michael May, "Nuclear Weapons Supply and Demand," <u>American Scientist</u>, Nov-Dec 1994, pp. 526-537.
- Kenneth Waltz, "Nuclear Myths and Political Realities," <u>APSR</u>, September 1990, pp. 731-745 (available on line through JSTOR)
- Scott D. Sagan, "The Perils of Proliferation," <u>International Security</u>, Spring 1994, pp. 66-107 (available on line through JSTOR)

<u>May 19</u>: What has the impact of nuclear weapons been on relations between India and Pakistan?

- <u>From Surprise to Reckoning: The Kargil Review Committee Report</u> (Sage Publications, 2000) pp. 183-213.
- Gregory S. Jones, <u>From Testing to Deploying Nuclear Forces: The Hard</u> <u>Choices Facing India and Pakistan</u> (Rand Corporation, 2000)

Week Nine: Reforming the Nonproliferation Regime

<u>May 24</u>: The nuclear nonproliferation regime has come under serious challenge in recent years by states that remain outside the treaty and by states that have signed the nuclear nonproliferation treaty but have conducted clandestine nuclear weapons programs.

- <u>The Nuclear Nonproliferation Treaty</u> at www.nuclearfiles.org/docs/1968/680701-npt.html
- Andrew Koch, "The Nuclear Network Khanfessions of a proliferators, Jane's Defense Weekly, February 25, 2004, at http://www4.janes.com/subscribe/jdw/doc_view.jsp?K2DocKey=/content1/ja

nesdata/mags/jdw/history/jdw2004/jdw07203.htm@current&Prod_Name=JD W

- David Albright and Corey Hinderstein, "The Centrifuge Connection," <u>Bulletin</u> of the Atomic Scientists, March/April 2004, pp. 61-66, at <u>www.thebulletin.org</u>
- Drell and Goodby, pp. 29-102.

<u>May 26</u>: How might the nuclear nonproliferation regime be strengthened? Do recent shifts in U.S. national security strategy enhance the regime?

- <u>Findings of the Nuclear Posture Review</u> (DoD, January 9, 2002). Excerpts from the Review may be found at <u>www.globalsecurity.org/wmd/library/policy/dod/npr.htm</u>
- The National Security Strategy of the United States of America (September 2002), at <u>http://www.whitehouse.gov/nsc/nss.html</u>
- National Strategy to Combat Weapons of Mass Destruction (December 2002), at http://www.whitehouse.gov/response/index.html
- New Measures to Counter the Threat of WMD, at <u>http://www.whitehouse.gov/news/releases/2004/02/20040211-4.html</u>
- Mohamad ElBaradei, "Saving Ourselves from Self-Destruction," <u>New York</u> <u>Times</u>, February 12, 2004, at <u>http://www.iaea.org/NewsCenter/Statements/2004/ebNYT20040212.html</u>

Week Ten: Where Do We Stand Now?

May 31: Memorial Day, no class.

June 2: How have we avoided nuclear war?

- Thomas Schelling, "A Half Century Without Nuclear War," <u>The Key</u> <u>Reporter</u>, Spring 2000, pp. 3-5.