

KING'S COLLEGE LONDON

**DEPARTMENT OF WAR STUDIES
POSTGRADUATE
2007-2008**

**SWM104/7SSWM104
THE PROLIFERATION OF WEAPONS**

Lecture: Monday 1000 - 1200
Room: Please see timetable
Course Organiser: Dr Susan Martin
Office Hours: Mondays 2-3:30 p.m. and by appointment
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AIMS AND OBJECTIVES

This course considers one of the key security issues of the 21st Century, the proliferation of weapons. We focus on chemical, biological and nuclear weapons, and begin with an examination of various theoretical explanations of their proliferation. During the first part of the course we use case studies of both proliferation and nonproliferation to assess the adequacy of these explanations. In the second term we investigate the utility of various responses to the problem of proliferation, including disarmament, arms control, non-proliferation regimes, supply-side policies and defence. We examine the role played by non-state actors (e.g. terrorists and proliferation supply networks) in proliferation and whether we need new policies to address it. We also analyse the debate between nuclear pessimists and optimists and assess the extent to which proliferation poses a threat to strategic stability and international security. This entails an examination of the applicability of deterrence, a central concept of war studies, to the Post-Cold War, Post-September 11th world. It therefore connects to some of the central concerns of the MA Core Course and extends the discussion of those concerns to the issue of proliferation.

By the end of the course, students will:

- have a clear understanding of the proliferation threats posed by chemical, biological, and nuclear weapons as well as by ballistic missiles;
- have analysed the ability of various explanations of proliferation to account for the spread of these weapons;
- be knowledgeable about the debate between optimists and pessimists on the issue of nuclear proliferation and be able to relate these positions to different understandings of the operation of deterrence during and after the Cold War;
- have considered the various attempts that have been made to tackle the problem of proliferation, and assessed both the success and value of initiatives such as regime formation, international organizations, arms control and disarmament treaties, and military responses.

COURSE REQUIREMENTS

This course requires extensive reading, up to 150-200 pages per week. Students are required to attend all lectures and seminars and complete all assessed work. Each student is expected to be prepared to participate in and lead discussion for each class session. Students will be given supplemental assignments designed to increase the productivity of class sessions; these will be discussed in more detail at the first class session.

What is expected of students:

- Students are expected to read widely for each week's lecture or seminar. Since we are covering issues of

theory and policy as well as case studies, the amount of reading you are expected to do outside of class is substantial. In addition, you are expected to use the Internet as a research tool, particularly to follow current developments in proliferation.

- Throughout the year we will discuss current developments, and students are expected to follow proliferation in the news and to keep up with contemporary international politics. You are advised to build up your own newspaper cutting collection to help you keep track of developments.
- All essays must conform to the 'Guidelines on the Presentation of Essays' in the MA Handbook.
- Students must read the section in the Handbook on plagiarism very closely. Plagiarism (cheating) is a very serious offence and may result in referral to the Misconduct Committee. Please come to see me if you have any concerns or doubts.

All students should note that attendance at seminars, tutorials etc. is mandatory and that all deadlines are absolute. A failure to submit work by the appropriate dates will result in a mark of 0. Word limits are fixed, and over-length work will result in penalties being applied. Students should be reminded that a copy of the comments sheet and mark for all formative essays is copied and added to the student files. A failure to submit all work in fulfilment of course obligations, or to meet other course obligations, such as making presentations, may be regarded as lack of due industry and may result in failure to progress, in accordance with the relevant sections in the Student Handbook.

ASSESSMENT METHODS

Fifty per cent exam: One two-hour paper in which students must answer two questions. Past examination papers are available in the Humanities Library.

Fifty per cent course work: Two 3,000 word essays must be submitted.

The **first** essay is due on **Thursday, 13 December, 2007**. Students must complete **one** of the following topics:

A) *Do you agree or disagree with the following statement? Explain.*

“Technology is never just technology; every machine has a socially constructed meaning and a socially oriented objective and this must be understood in order to explain the proliferation of weapons.”

--or--

B) *Do you agree or disagree with the following statement? Explain.*

“Military utility best explains the first wave of nuclear proliferation, but to explain later nuclear proliferation one has to include norms and ideas as causal factors.”

The **second** essay is due on **Thursday, 24 April, 2008**. Students must complete **one** of the following topics:

A) *Write a 3,000 word policy paper in which you draw lessons from the Iraq experience for non-proliferation policy for chemical and biological weapons. Policy recommendations should be intended to inform the policy of the **either** the US, **or** the EU, **or** the UN.*

--or--

B) *Write a 3,000 word policy paper in which you draw lessons from the North Korean case for nuclear non-proliferation. Policy recommendations should be intended to inform the policy of the **either** the US, **or** the EU, **or** the UN*

In addition to submitting both a printed and electronic version of their paper to the department office, from 2007/08 it is the intention that all coursework will also be submitted to Turnitin, the plagiarism detection service used by King's College London. Further information on this will be provided at the first class session.

TEACHING ARRANGEMENTS

Teaching will be done through seminar-based sessions, each lasting two hours. The success of the course will depend largely on student preparation and involvement in class discussion. Over the course of the year supplemental assignments and small group discussions will be utilised to augment the productivity of class sessions.

LECTURE AND SEMINAR TOPICS

1. Introduction: The Basics of CBN Weapons and Issues in Studying Proliferation
2. Introduction, 2: Utility and History of Use
3. Explaining Proliferation
4. Case Study: The First and Second Waves of Nuclear Proliferation
5. Case Study: The Proliferation of Chemical and Biological Weapons
6. Case Study: Proliferation as a Regional Phenomenon—The Case of the Middle East
7. Case Study: Proliferation as a Regional Phenomenon—The Case of the Northeast Asia
8. Case Study: Cases of Nonproliferation and De-Weaponization
9. Terrorism, 1
10. Terrorism, 2
11. Disarmament
12. Arms Control
13. Treaties: NPT, CWC and BWC
14. Defence
15. Supply-side policies: Export Controls and the example of the Missile Technology Control Regime
16. Proliferation Supply Networks
17. Counterproliferation
18. New Approaches to Nonproliferation
19. Debate: The Dangers of Proliferation
20. The Future of Proliferation: Nature of the problem, workable solutions?

ESSENTIAL TEXTS

Davis, Zachary S. and Benjamin Frankel (eds.), *The Proliferation Puzzle: Why Nuclear Weapons Spread (and What Results)* (London: Frank Cass, 1993). Also available as a special issue of *Security Studies*, Vol. 2, No. 3/4 (Spring/Summer 1993).

Forsberg, Randall, et. al. *Nonproliferation Primer* (Cambridge, MA: MIT Press, 1996).

Larsen, Jeffrey A., ed. *Arms Control: Cooperative Security in a Changing Environment* (Boulder, CO: Lynne-Rienner Press, 2002).

Sagan, Scott D. and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York: Norton, 2002).

Recommended texts:

Dando, Malcolm. *Bioterror and Biowarfare*. (Oxford: Oneworld Publications, 2006).

Wright, Susan, ed. *Biological Warfare and Disarmament*. (Lanham: Rowman and Littlefield, 2002).

Stockholm International Peace Research Institute, *SIPRI Yearbook: Armaments, Disarmament and International Security* (Oxford: Oxford University Press, various years).

Please note: The Forsberg, Larsen, and Sagan and Waltz, books have been ordered at Blackwell's and some of them are available at Amazon.co.uk. The Dando and Wright books are also available at amazon.co.uk.

This course handout only lists the *required readings* that provide the basis for class discussion, and as such, should be done before you come to class. A list of further readings organised by topic can be found in the 'MA Proliferation of Weapons: Additional Resources' handout, available on the War Studies website under

course handouts. If you have already read all or some of the required readings, you are encouraged to delve into the further readings. You will also find a list of WWW sites of interest in this handout.

Required readings are usually available on the web, through the library ejournals, or at either the KCL or the LSE libraries. Because this is a specialised course, some materials may be difficult to find and you are advised to sign up for membership to the library of the International Institute for Strategic Studies (just around the corner, near Temple tube). This has an excellent selection of relevant materials. To join the library, please inquire at the War Studies Department Office.

LECTURES AND SEMINARS

Part I: The Problem of Proliferation: Theories, Cases and Debates

1. Introduction: The Basics of CBN Weapons and Issues in Studying Proliferation

(Technical overview provided by Dr Chris Hobbs)

Required readings:

Forsberg, Randall, et. al. *Nonproliferation Primer*. Cambridge, MA: MIT Press, 1996. (LSE)

*Martin, Susan B. "Weapons of Mass Destruction: An Introduction," in *Ethics and Weapons of Mass Destruction* eds. Sohail Hashmi and Stephen Lee. Cambridge: Cambridge University Press, 2004.

*Tucker, Jonathan B., Brad Roberts & Elisa Harris, "Chemical and Biological Weapons" in Joseph Cirincione (ed.), *Repairing the Regime: Preventing the Spread of Weapons of Mass Destruction*. London & New York: Routledge, 2000, 217-232. (KCL)

Further reading:

*Zimmerman, Peter D., "Technical Barriers to Nuclear Proliferation," *Security Studies* 2(3/4) Spring Summer 1993, 345-55.

Dando, Malcolm. *Bioterror and Biowarfare*. (Oxford: Oneworld Publications, 2006).

Mozley, Robert Fred. *The Politics and Technology of Nuclear Proliferation*. Seattle: University of Washington Press, 1998.

Wheelis, M and M. Dando. 'New Technology and Future Developments in Biological Warfare.' *Disarmament Forum* #4 (2000). Available at: <http://www.unidir.org/pdf/articles/pdf-art115.pdf>

World Health Organization. *Public health response to biological and chemical weapons: WHO Guidance* 2nd ed. Geneva: world health Organization, 2004. Especially pp. 9-52. Available at: <http://whqlibdoc.who.int/publications/2004/9241546158.pdf>

2. Introduction, 2: Utility and History of Use

What is the military utility of chemical, biological, and nuclear weapons? How does the military utility of each of these weapons compare to the utility of conventional weapons? What determines military utility? Under what circumstances have these weapons been used in the past?

Required readings:

Utility

*Krause, Joachim. "The Military Utility of Chemical Weapons in Current Warfare." *International Spectator* XXVI, 2 (April-June 1991), 85-99.

Martin, Susan B. "The Role of Biological Weapons in International Politics: The Real Military Revolution." *The Journal of Strategic Studies* Vol. 25, #1 (March 2002), 63-98. (ejournal)

*Mueller, John. "Escalating Irrelevance of Nuclear Weapons" in *The Absolute Weapon Revisited*. Eds. T. Paul, R. J. Harknett and J. J., Wirtz. Michigan: Michigan University Press, 2000. (KCL)

Waltz, Kenneth W. "Nuclear Myths and Political Realities," *American Political Science Review* vol.84, #3 (September 1990), 731-745. (KCL)

History of use:

Moon, John Ellis van Courtland. "Chemical Weapons and Deterrence: The World War II Experience," *International Security* vol. 8, #4 (Spring 1984), 3-35. (KCL)

- *Spiers, Edward M. "The Role of Chemical Weapons in the Military Doctrines of Third World Armies" in *Security Implications of a Global Chemical Weapons Ban* ed. Joachim Krause. Boulder, CO: Westview Press, 1991, 41-62. (LSE)
- Wheelis, Mark. 'A short history of biological warfare and weapons' in M.I. Chevrier, K. Chomiczewski, M.R. Dando, H. Garrigue, G. Granatzi and G.S. Pearson, editors. *The Implementation of Legally Binding Measures to Strengthen the Biological and Toxin Weapons Convention*. Amsterdam: ISO Press, 15-31. Available at: http://microbiology.ucdavis.edu/faculty/mwheelis/BW_history.pdf.

Further reading:

- Guillemin, Jeanne. *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bioterrorism*. New York: Columbia University Press, 2005.
- Tucker, Jonathan B. *War of Nerves: Chemical Warfare from World War I to Al-Qaeda*. Pantheon Books, 2006
- Coleman, Kim. *A History of Chemical Warfare*. Palgrave, 2005.
- Betts, Richard K. *Nuclear Blackmail and Nuclear Balance*. Washington DC: Brookings, 1987.
- Newhouse, John. *War and Peace in the Nuclear Age*. New York: Alfred A. Knopf, 1989.

3. Explaining Proliferation

What is the role of insecurity, economics, domestic politics, and norms in explaining proliferation? Is a theory of proliferation possible?

Required readings:

- Flank, Steven. 'Nonproliferation Policy: A Quintet for Two Violas?' *The Nuclear Nonproliferation Review* (Spring Summer 1994) 71-81. Available on the web.
- *Frankel, Benjamin and Zachary S. Davis, 'Nuclear Weapons Proliferation: Theory and Policy' in Davis, Zachary S. and Benjamin Frankel (eds.), *The Proliferation Puzzle: Why Nuclear Weapons Spread (and What Results)*. London: Frank Cass, 1993, 1-3. Also available as a special issue of *Security Studies*, Vol. 2, No. 3/4 (Spring/Summer 1993). (LSE)
- Ogilvie-White, Tanya. "Is there a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate," *The Nonproliferation Review* Vol. 4, 1 (1996). Available at: <http://cns.miis.edu/pubs/npr/vol04/41/ogilvi41.pdf>
- Sagan, Scott D. "Why Do States Build Nuclear Weapons?," *International Security*, Vol. 21, No. 3 (Winter 1996/97), 54-86.
- In addition to these general overviews you should read at least two articles listed under 'further' reading, preferably representing two different approaches to explaining proliferation.*

Further reading:

- *Brito, Dagobert and Michael Intriligator. "Economic and Political Incentives to Acquire Nuclear Weapons" in Davis, Zachary S. and Benjamin Frankel (eds.), *The Proliferation Puzzle: Why Nuclear Weapons Spread (and What Results)*. London: Frank Cass, 1993. Also available as a special issue of *Security Studies*, Vol. 2, No. 3/4 (Spring/Summer 1993). (LSE)
- *Frankel, Benjamin. "The Brooding Shadow: Systemic Incentives and Nuclear Weapons Proliferation," in Davis, Zachary S. and Benjamin Frankel (eds.), *The Proliferation Puzzle: Why Nuclear Weapons Spread (and What Results)*. London: Frank Cass, 1993. Also available as a special issue of *Security Studies*, Vol. 2, No. 3/4 (Spring/Summer 1993). (LSE)
- *Betts, Richard. "Paranoids, Pygmies, Pariahs & Non-Proliferation Revisited, in Davis, Zachary S. and Benjamin Frankel (eds.), *The Proliferation Puzzle: Why Nuclear Weapons Spread (and What Results)*. London: Frank Cass, 1993. Also available as a special issue of *Security Studies*, Vol. 2, No. 3/4 (Spring/Summer 1993). (LSE)
- *Eyre, Dana P. and Mark C. Suchman. 'Status, Norms, and the Proliferation of Conventional Weapons: An Institutional Theory Approach' in *The Culture of National Security: Norms and Identity in World Politics* ed. Peter J. Katzenstein. New York: Columbia, 1996, 79-113.
- *Price, Richard and Nina Tannenwald. "Norms and Deterrence: The Nuclear and Chemical Weapons Taboos" in *The Culture of National Security* ed. Peter J. Katzenstein. New York: Columbia University Press, 1996, 114-152. (KCL)

- Halperin, Morton H. "The Decision to Deploy the ABM: Bureaucratic Politics in the Johnson White House," *World Politics* vol. 25, (Oct 1972), 62-95. (LSE)
- *Keller, William W. "The Political Economy of Conventional Arms Proliferation," *Current History*, Vol. 97, No. 609 (April 1997), 179-183.(LSE)
- *Lavoy, Peter R. "Nuclear Myths and the Causes of Nuclear Proliferation," in *The Proliferation Puzzle: Why Nuclear Weapons Spread (and What Results)*, ed. Zachary S. Davis and Benjamin Frankel (London: Frank Cass, 1993).
- Spinardi, Graham. "Aldermaston and British Nuclear Weapons Development: Testing the 'Zuckerman Thesis'." *Social Studies of Science*, Vol. 27, No. 4 (1997), 547-582. (Ejournal)

Recommended background reading:

Jervis, Robert. "Cooperation under the Security Dilemma." *World Politics*, Vol. 30, No. 2. (Jan.1978), 167-214. (KCL)

4. Case Study: The First and Second Waves of Proliferation

How well do our theories of proliferation explain the 1st and 2nd waves of proliferation?

At a minimum, each student should read about one first wave and one second wave country (to be assigned in class); group presentations

First wave:

- Arnold, Lorna. *Britain and the H-Bomb*. Basingstoke: Palgrave, 2001. (KCL)
- Bellini, James. *French Defence Policy*. London: Royal United Services Institute, 1974.(LSE)
- Clark, Ronald W. *The Birth of the Bomb: The Untold Story of Great Britain's Part in the Weapon that Changed the World*. London: Phoenix House, 1961.(KCL)
- Coates, Ken. ed. *China and the Bomb*. Nottingham: Spokesman, 1986. (LSE)
- Duval, M. and Le Baut, *L'arme Nucleaire Francaise: Pourquoi et Comment?* Paris: Kronas, 1992.
- Freedman, Lawrence. *Britain and Nuclear Weapons*. Basingstoke: Macmillan, 1980. (KCL)
- Freedman, Lawrence. *The Evolution of Nuclear Strategy*. New York: St. Martin's Press, 1983, 1-21.(KCL)
- Goldberg, A. "The Atomic Origins of the British Nuclear Deterrent," *International Affairs*, Vol. XL, No. 2 (July 1964). (LSE)
- Goldberg, A. "The Military Origins of the British Nuclear Deterrent," *International Affairs*, Vol. XL, No. 4 (October 1964). (LSE)
- Goldstein, Avery. 'France' in *Deterrence and Security in the 21st century : China, Britain, France, and the Enduring Legacy of the Nuclear Revolution*. Stanford, CA : Stanford University Press, 2000, 181-217. (LSE)
- Goldstein, Avery. "Understanding Nuclear Proliferation: Theoretical Explanation and China's National Experience." *Security Studies* 2:3-Reprinted in Zachary S. Davis and Benjamin Frankel *Proliferation Puzzle: Why Nuclear Weapons* (London: Frank Cass, 1993), pp. 213-255.
- Goldstein, Avery. *Deterrence and Security in the 21st century : China, Britain, France, and the Enduring Legacy of the Nuclear Revolution*. Stanford, CA : Stanford University Press, 2000. (LSE)
- Groom, John. *British thinking about nuclear weapons*. London: Francis Pinter, 1974. (KCL)
- Halperin, Morton H. *China and the Bomb*. London: Pall Mall Press, 1965.(KCL)
- Herken, Gregg. *Counsels of War*. New York: Oxford University Press, 1987. (LSE)
- Hewlett, Richard G. *Atoms for Peace and War, 1953-1961: Eisenhower and the Atomic Bomb*. Berkeley, CA: University of California Press, 1989. (KCL)
- Holloway, David. "Entering the Nuclear Arms Race: The Soviet Decision to Build the Atomic Bomb," *Working Paper No. 9, International Security Studies Program, The Wilson Center*, Washington D.C., 1979, 62pp; revised version in *Social Studies of Science*, May 1981, pp. 159-197.
- Holloway, David. *Stalin and the Bomb: The Soviet Union and Atomic Energy 1939-1956*. New Haven, CT: Yale University Press, 1994. (KCL)
- Hopkins, John C. and Weising Hu, Editors. *Strategic Views from the Second Tier: The Nuclear Weapons Policies of France, Britain and China*. (La Jolla, CA: University of California Institute on Global Cooperation and Conflict, 1994).
- Killingray, David. *The Atom Bomb*. London: Harrap, 1975. (KCL)
- Lewis, John Wilson and Xue Litai. *China Builds the Bomb*. Stanford: Stanford University Press, 1988. (KCL)

- Lewis, John Wilson. *China's strategic seapower: the politics of force modernization in the Nuclear Age*. Stanford: Stanford University Press, 1994.
- Lin, Chong-Pin. *China's Nuclear Weapons Strategy: tradition within evolution*. Lexington Mass: Lexington Books, 1988.
- Liu, Leo Yueh-yun. *China as a Nuclear Power in World Politics*. London: Macmillan, 1972. (KCL)
- Mendl, Wolf. *Deterrence and Persuasion: French Nuclear Armament in the Context of National Policy*. London: Faber, 1970.
- Newhouse, John. *War and Peace in the Nuclear Age*. New York: Alfred A. Knopf, 1989, 1-52. (KCL)
- Rhodes, Richard. *Dark Sun: The Making of the Hydrogen Bomb*. NY: Simon and Schuster, 1995. (KCL)
- Rhodes, Richard. *The Making of the Atomic Bomb*. NY: Simon and Schuster, 1988. (KCL)
- Ryan, Mark A. *Chinese Attitudes toward nuclear weapons: China and the United States during the Korean War*. Armonk, NY: ME Sharpe, 1989.
- Simpson, John. *The Independent Nuclear State: The United States, Britain and the Military Atom*, Second Edition. Basingstoke: Macmillan, 1986.(LSE)
- Strong, Robert A., "The Nuclear Weapon States: Why they Went Nuclear," in W.H. Kincade and C. Bertram eds. *Nuclear Proliferation in the 1980s*, New York: St. Martins 1982, 3-26.
- Université de Franche-Comté Institut Charles de Gaulle. *L'Aventure de la Bombe: De Gaulle et la Dissuasion Nucleaire 1958-1969*. Paris: Plon, 1985.(LSE)
- Yunhua, Zou. 'China: Balancing Disarmament and Development' in Susan Wright, ed. *Biological Warfare and Disarmament: New Problems, New Perspectives*. Lanham: Rowan and Littlefield, 2002.
- Zaloga, Steve. *Target America: The Soviet Union and the Strategic Arms Race, 1945-1964*. Novato, CA: Presidio, 1993. (KCL)

Second wave:

- Ahmed, Samina,. 'Pakistan's Nuclear Weapons Program: Turning Points and Nuclear Choices.' *International Security* 23, 4 (Spring 1999), 178-204.
- Bajpai, Kanti, "The Fallacy of Indian Deterrent," in Amitabh Matto ed., *India's Nuclear Deterrent: Pokhran and Beyond*, New Delhi: Har-Aanand Publications, 1999, 150-85.
- Betts, Richard. "A Diplomatic Bomb for South Africa?" *International Security* 4,2 (Autumn 1979), 91-115.
- Betts, Richard. "Incentives for Nuclear Weapons: India, Pakistan, and Iran." *Asian Survey* 19, 11 (November 1979), 1053-1072.(LSE)
- Bracken,Paul. "The Structure of the Second Nuclear Age." *Orbis* (Summer 2003), 399-413.
- Chellaney, Brahma. "South Asia's Passage to Nuclear Power." *International Security* vol. 16, #1 (Summer 1991), 43-72.(KCL)
- Dowty, Alan. "Nuclear proliferation: The Israeli Case." *International Studies Quarterly* 221 (March 1978), 79-120.(LSE)
- Ganguly, Sumit. 'India's Pathway to Pokhran II: The Prospects and Sources of New Delhi's Nuclear Weapons Program.' *International Security* 23, 4 (Spring 1999) 148-177.
- Ganguly, Sumit."Slouching Towards Pokhran II: Three Explanations of India's Quest for the Bomb," *Disarmament Diplomacy*, No. 38 (June 1999), 9-11. Available at <http://www.acronym.org.uk/38three.htm>.
- Nair, Vijay K., "The Structure of an Indian Nuclear Deterrent," in Amitabh Matto ed., *India's Nuclear Deterrent: Pokhran and Beyond*, New Delhi: Har-Aanand Publications, 1999:80-107.
- Paul, T.V., "The Systemic Bases of India's Challenge to the World Nuclear Order," *Nonproliferation Review*, 6(1) Fall 1998:1-11.
- Perkovich, George, *India's Nuclear Bomb: The Impact of Global Proliferation*, Berkeley: University of California Press, 1999: 1-12, 404-68.
- Rais, Rasui B. "Pakistan's Nuclear Program: Prospects for Proliferation." *Asian Survey* 25, 4 (April 1985), 458-472. (LSE)
- Zhara, Farah. 'Pakistan's Road to a Minimum Nuclear Deterrent.' *Arms Control Today* Vol. 29, #5 (July/August 1999), 9-13. Available at: http://www.armscontrol.org/act/1999_07-08/fzja99.asp

5. Case Study: Chemical and Biological Weapons

Do theories of nuclear proliferation also explain chemical and biological weapons? Or is the proliferation of chemical and/or biological weapons driven by different factors?

Required reading:

- *Cohen, Avner. 'Israel: Reconstructing a Black Box' in Susan Wright, ed. *Biological Warfare and Disarmament: New Problems, New Perspectives*. Lanham: Rowan and Littlefield, 2002.
- *Robinson, J.P. Perry. 'Supply, Demand and Assimilation in Chemical-Warfare Armament' in *Military Technology, Armaments Dynamics and Disarmament* ed. Hans Gunter Brauch. Palgrave Macmillan, 1989, 112-123.
- *Spiers, Edward. *Chemical and Biological Weapons: A Study of Proliferation*. Basingstoke: Macmillan, 1994, 1-64.
- Zanders, J.P. 'The Proliferation of Biological Weapons: A Threat Assessment.' *Disarmament Forum* 2000, #4 (2000) available at: <http://www.unidir.org/pdf/articles/pdf-art107.pdf>

In addition, you should read case studies from the following:

- Geissler, Erhard and John Ellis van Courtland Moon. *Biological and Toxin Weapons: Research, Development and Use from the Middle Ages to 1945*. SIPRI Chemical and Biological Warfare Studies, no. 18. Oxford: Oxford University Press, 1999. (KCL)
- Wheelis, Mark, Lajos Rózsa and Malcolm Dando, eds. *Deadly Cultures: Biological Weapons since 1945*. Oxford: Oxford University Press, 2006. (KCL)
- Guillemin, Jeanne. *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bioterrorism*. New York: Columbia University Press, 2005. (KCL)
- Tucker, Jonathan B. *War of Nerves: Chemical Warfare from World War I to Al-Qaeda*. Pantheon Books, 2006

6. Case Study: Proliferation as a Regional Phenomenon: The Case of the Middle East

Is proliferation a regional or global phenomenon? Is there an interaction among the proliferation of chemical, biological, and nuclear weapons? What are the implications for arms control and nonproliferation policy?

(led by Joanna Kidd)

Required reading:

Cordesman, Anthony H. *Weapons of Mass Destruction in the Middle East: The Impact on the Regional Military Balance*. March 25, 2005.

Available at: http://www.csis.org/media/csis/pubs/050325_proliferation%5B1%5D.pdf.

*Drake, Laura. 'Middle East: Integrated Regional Approaches to Arms Control and Disarmament' in Susan Wright, ed. *Biological Warfare and Disarmament: New Problems, New Perspectives*. Lanham: Rowan and Littlefield, 2002.

Plus selections from below, on at least three countries.

Aronson, Shlomo. *The politics and strategy of nuclear weapons in the Middle East : opacity, theory, and reality, 1960-1991 : an Israeli perspective*. Albany : State University of New York Press, 1992.

Baghat, Gawdat. 'Nuclear Proliferation: The Islamic Republic of Iran.' *International Studies Perspectives* vol. 7, 2 (May 2006) 124-136. (Library ejournal)

Barletta, Michael and Amin Tarzi. '[Challenges in the Middle East to Nonproliferation Regimes](#).' *CNS Occasional Paper No. 3* (Monterey, CA: Center for Nonproliferation Studies), available at: <http://cns.miis.edu/pubs/opapers/op3/bartar.htm>

Bowen, Wyn Q., *Libya and Nuclear Proliferation: Stepping Back from the Brink*, Adelphi Paper 380, 2006.

Brom, Shlomo, 'Is the Begin Doctrine Still a Viable Option for Israel?', in *Getting Ready for Nuclear Ready Iran* eds. Sokolski, Henry and Clawson, Patrick, pp. 133-159. Available at: <http://www.strategicstudiesinstitute.army.mil/Pubs/display.cfm?pubID=629>.

Campbell, Kurt M, Robert J. Einhorn and Mitchell B Reiss, eds. *The Nuclear Tipping Point*. Washington, DC: Brookings Institution, 2004. Chapters on Egypt, Syria, Saudi Arabia and Turkey.

Chubin, Shahram, "Eliminating Weapons of Mass Destruction: The Persian Gulf Case," Washington D.C.: Stimson Center, Occasional Paper # 33, March 1997:1-45. (Hit the download key at: <http://www.stimson.org/pub.cfm?id=145>).

Cordesman, Anthony. And Khalid R. Al-Rodhan. 'Iran's Weapons of Mass Destruction: The Real and Potential Threat.' Wahsington DC: Center for Strategic and International Studies, 2006. Available at: http://www.csis.org/index.php?option=com_csis_pubs&task=archive&curyear=2006&

- *Evron, Yair. 'Opaque Proliferation: The Israeli Case' in *Opaque Nuclear Proliferation* ed. Benjamin Frankel (Frank Cass, 1991) 45-63.
- Feldman, Shai, *Nuclear Weapons and Arms Control in the Middle East*, Cambridge, MA, MIT Press, 1997.
- Gregory, Barbara M., "Egypt's Nuclear Program: Assessing Supplier-based and other Developmental Constraints," *Nonproliferation Review*, 3(1), Fall 1995, 20-26. Available on-line.
- Guldimann, Tim. 'The Iranian Nuclear Impasse' *Survival* 49, 3 (Autumn 2007), 169-178. (Ejournal)
- Kaye, Dalia Dassa and Wehrey, Frederic M, 'A Nuclear Iran: The Reactions of Neighbours', *Survival*, 49:2, pp. 111-128. Ejournal.
- Perkovitch, George with Manzanero, Silvia, 'Iran Gets the Bomb – Then What?', in *Getting Ready for Nuclear Ready Iran*, eds. Sokolski, Henry and Clawson, Patrick, 2005, pp. 177-207. Available at: <http://www.strategicstudiesinstitute.army.mil/Pubs/display.cfm?pubID=629>
- Shoham, Dany. 'Does Saudi Arabia have or Seek Chemical or Biological Weapons?' *The Nuclear Nonproliferation Review* (Spring Summer 1999) 6, #3, 122-130. Available on-line.
- Shoham, Dany. 'Guile, Gas and Germs: Syria's Ultimate Weapons.' *Middle East Quarterly* (Summer 2002) available at <http://www.meforum.org/article/493> (Be sure to explore this journal a bit when you access the site.)
- Zarif, Mohammad Javad and Mohammad Reza Alborzi. 'Weapons of Mass Destruction in Iran's Security Paradigm: The case of chemical weapons.' *Iranian Journal of International Affairs* 11, 4 (1999), 511-23.

7. Case Study: Proliferation as a Regional Phenomenon: Northeast Asia

What are the internal versus external factors affecting proliferation in Northeast Asia? Is there an interaction among the proliferation of chemical, biological, and nuclear weapons? How does the problem of proliferation in Northeast Asia compare and contrast with the problem of proliferation in the Middle East? What are the implications for arms control and nonproliferation policy?

(led by Joanna Kidd and Dr Chris Hobbs)

Required reading:

- Albright, David and Corey Gay, '[Taiwan: Nuclear Nightmare Averted.](#)' *Bulletin of the Atomic Scientists*, January/February 1998. Not available on web.
- Campbell, Kurt M, Robert J. Einhorn and Mitchell B Reiss, eds. *The Nuclear Tipping Point*. Washington, DC: Brookings Institution, 2004. Chapters on Japan, South Korea and Taiwan.
- Cordesman, Anthony. 'The Asian Balance of Weapons of Mass Destruction.' Washington DC: Center for Strategic and International Studies, 2002. Available at: <http://www.csis.org/media/csis/pubs/asianwmd020202%5B1%5D.pdf>
- Hughes, Christopher, 'North Korea's nuclear weapons: implications for the nuclear ambitions of Japan, South Korea, and Taiwan', *Asia Policy*, vol. 2, no. 1, January 2007, pp 105-123. Available at: http://www.nbr.org/publications/asia_policy/AP3/AP3Hughes.pdf.
- Kang, Jungmin, Peter Hayes, Li Bin, Tatsujiro Suzuki and Richard Tanter. 'South Korea's Nuclear Surprise.' *Bulletin of Atomic Scientists* vol. 61, no. 01 (January/February 2005) 40-49; available at: http://www.thebulletin.org/print.php?art_ofn=jf05kang.
- Lewis, Jeffrey. (on China) 'The ambiguous arsenal.' *Bulletin of the Atomic Scientists* vol. 61, no. 03(May/June 2005), 52-59. Available at: http://www.thebulletin.org/article.php?art_ofn=mj05lewis
- Mansiourov, Alexandre Y. 'The Origins, Evolution, and Current Politics of the North Korean Nuclear Program.' *The Nonproliferation Review* Spring Summer 1995, 25-38. Available at: <http://cns.miis.edu/pubs/npr/vol02/23/mansou23.pdf>

Further reading:

- [A Footnote to the History of Our Country's "Nuclear Energy" Policies](#) by Dr. Ta-you Wu *Translation from Chinese article in Biographical Literature*, May 1988 (Available on web—click link)
- Burr, William, ed. *New Archival Evidence on Taiwanese "Nuclear Intentions", 1966-1976*. National Security Archive Electronic Briefing Book, October 1999. Recently declassified documents provide new and significant details about the efforts to forestall a nuclear-armed Taiwan.

- Available at: <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB20/>.
- Engelhardt, Michael J. 'Rewarding Nonproliferation: The South and North Korean Cases.' *The Nonproliferation Review* (Spring-Summer 1996), 31-37. Available on-line.
- [FBIS Report: PRC Media Response to Taiwan Nuclear Weapons Debate Low-key](#), Foreign Broadcast Information Service Report, November 12, 2004 (Available on web—click link)
- Halperin, M. 'The Nuclear Dimension of the U.S.-Japan Alliance.' July 9, 1999.
http://www.thebulletin.org/article.php?art_ofn=jf05kang
- Hersman, Rebecca K.C. Hersman and Robert Peters. 'Nuclear U-Turns: Learning from South Korean and Taiwanese Rollback.' *Nonproliferation Review*, Vol. 13, 3. Available online.
- Jarrosom, Seog S. *Japan's Nuclear Future: The Plutonium Debate and East Asian Security*. 1996.
- Kase, Yuri. 'The Costs and Benefits of Japan's Nuclearization: An Insight into the 1968/70 Internal Report.' *The Nonproliferation Review* vol. 8 (Summer 2001), 55-68. Available on-line.
- Katahara, Eiichi. 'Japan's Plutonium Policy: Consequences for Nonproliferation.' *Nonproliferation Review* vol. 5, #1 (Fall 1997). Available on-line.
- Low, M.L. "Japan's Secret War? 'Instant Scientific Manpower and Japan's World War II Atomic Bomb Project'" *Annals of Science*, July 1, 1990, Volume 47, Number 4, 347.
- Mack, Andres. 'North Korea and the Bomb.' *Foreign Policy* Summer 1991, 87-104. Available through KCL (use password on publisher's site).
- Mansourov, Alexandre Y. 'North Korean decision-Making Processes Regarding the Nuclear Issue.' May 1994. Available at
<http://www.nautilus.org/archives/pub/ftp/napsnet/papers/mansourov0594.txt>.
- Mazaar, Michael. 'Going Just a Little Nuclear: Nonproliferation Lessons from North Korea.' *International Security*, Vol. 20, No. 2 (Autumn, 1995), 92-122.
- Medeiros, Evan. "Northeast Asia in 1999: Current Threats to Nonproliferation Regimes," *CNS Occasional Paper No. 3* (Monterey, CA: Center for Nonproliferation Studies), available at:
<http://cns.miis.edu/pubs/opapers/op3/medeiros.htm>
- Norris, Robert S. and Hans M. Kristensen. 'NRDC: Nuclear Notebook: North Korea's nuclear program, 2005.' *Bulletin of the Atomic Scientists* vol. 61, no. 03(May/June 2005), 64-67. Available at:
http://www.thebulletin.org/article_nn.php?art_ofn=mj05norris.
- Norris, Robert S. and Hans M. Kristensen. 'Chinese nuclear forces, 2006.' *Bulletin of the Atomic Scientists* vol. 62, no. 3 (May/June 2006), 60-63. Available at:
http://www.thebulletin.org/article_nn.php?art_ofn=mj06norris
- Shapley, Deborah. "Nuclear Weapons History: Japan's Wartime Bomb Projects Revealed" *Science*, 1978.
- [TAIWAN WILL NOT DEVELOP NUCLEAR ARMS: DEFENSE MINISTER](#) [CNA Taiwan] 05 January 2000 -- The issue was suddenly a hot topic because of former Premier Hau Pei-tsun's disclosure in his soon-to-be published "Diary of Eight Years as Chief of the General Staff" that Taiwan was capable of producing nuclear weapons 14 years ago. Available at:
<http://www.fas.org/news/taiwan/2000/e-01-05-00-16.htm>.
- Weilcox, Robert K. *Japan's Secret War: Japan's Race Against Time to Build Its Own Atomic Bomb* (Marlowe & Co., New York, 1995).

8. Case Study: Cases of Nonproliferation and De-Weaponization

Do the same factors that explain proliferation explain nonproliferation and/or nuclear reversal? What policies might best encourage nuclear reversal?

Required reading: Read Levite and Solingen and at least two of the other articles.

- Barletta, Michael. 'Democratic Security and Diversionary Peace: Nuclear Confidence-Building in Argentina and Brazil.' *National Security Studies Quarterly* 5,3 (1999), 19-38.
- Levite, Ariel E. "Never Say Never Again: Nuclear Reversal Revisited." *International Security* 27, 3 (Winter 2002/2003), 59-88.(KCL)
- Lieberman, Peter. "The Rise and Fall of the South African Bomb," *International Security*, Vol. 26, No. 2 (Fall 2001), 45-86 and Correspondence on the article in *International Security*, Vol. 27, No. 1 (Summer 2002), 186-194.(KCL)

- *Martel, Dr. William C. 'Why Ukraine Gave Up Nuclear Weapons: Nonproliferation Incentives and Disincentives' from *Pulling Back from the Nuclear Brink: Reducing and Countering Nuclear Threats* eds. Barry R. Schneider and William L. Dowdy (London: Frank Cass, 1998), 88-104.
- Potter, William C., "The Politics of Nuclear Renunciation, The Cases of Belarus, Kazakhstan and Ukraine," The Stimson Center, Occasional Paper 22, April 1995:1-52. Available at: <http://www.stimson.org/pub.cfm?id=140>
- *Redick, John *et. al.*, "Nuclear Rapprochement: Argentina, Brazil and the Nonproliferation Regime," *The Washington Quarterly*, Vol. 18, No. 2 (Spring 1995), 107-122. (LSE).
- Solingen, Etel. "The Political Economy of Nuclear Restraint," *International Security*, Vol. 19, No. 2 (Fall 1994), 126-169.(KCL)
- *Stumpf, Wald. 'South Africa's Nuclear Weapons Program: From Deterrence to Dismantlement.' *Arms Control Today* 25, 10 (December 1995/January 1996), 3-8.

9. Case study: Terrorism, 1

What are the strategy and aims of terrorists? Has a 'new breed' of terrorists emerged onto the world stage?

Required readings:

- *Crenshaw, Martha. "The Logic of Terrorism: Terrorist Behavior as a Product of Strategic Choice," in Reich, Walter ed., *Origins of Terrorism: Psychologies, Ideologies, Theologies, States of Mind* (Woodrow Wilson Center Press, 1998), 7-24.
- *Howard, Russell D. "Understanding Al Qaeda's Application of the New Terrorism," in Russell D. Howard and Reid L. Sawyer, eds., *Terrorism and Counterterrorism: Understanding the New Security Environment*, revised ed., (McGraw-Hill, 2004), 75-85.
- *Keeley, Robert V. "Trying to Define Terrorism," *Middle East Policy* (March 2002), 33-39.
- Kydd, Andrew H. and Barbara F. Walter. 'The Strategies of Terrorism.' *International Security* Vol. 31, No. 1 (Summer 2006), 49-80. (Ejournal)
- Pape, Robert A. "The Strategic Logic of Suicide Bombing," *American Political Science Review*, Vol. 97, No. 3 (August 2003), 343-361. (Ejournal)
- United States Department of State, *Patterns of Global Terrorism 2003*, "Definitions," p. xii, "Appendix A: Background Information on Designated Foreign Terrorist Organizations," pp. 113-137, "Appendix B: Background Information on Other Terrorist Groups," pp. 139-160. Available at: http://www.globalsecurity.org/security/library/report/2004/pgt_2003/index.html.

Further reading:

- Abrams, Max. 'Why Terrorism Does Not Work.' *International Security* Vol. 31, No. 2 (Fall 2006), 2-78. (Ejournal)
- *Crenshaw, Martha. "Thoughts on Relating Terrorism to Historical Contexts," in Martha Crenshaw, ed., *Terrorism in Context*. Penn State University Press, 1995, 3-24.
- Gibbs, Jack P. "Conceptualization of Terrorism." *American Sociological Review* Vol. 54, No. 3 (June 1989), 329-340. (Ejournal)
- *Hoffman, Bruc. *Inside Terrorism*. New York: Columbia University Press, 1998, 13-44 and 67-86.

10. Case Study: Terrorism, 2

How concerned should we be about terrorist use of CBN? Does countering this threat require new nonproliferation policies?

Required readings:

- Ackerman, Gary A. and Jeffrey M. Bale. "Al-Qa'ida and Weapons of Mass Destruction." December 31, 2002. Available at <http://cns.miis.edu/pubs/other/algwmd.htm>.
- Acton, James M., M. Brooke Rogers, and Peter D. Zimmerman. 'Beyond the Dirty Bomb: Re-thinking Radiological Terror.' *Survival*, Vol. 49, 3 (September 2007), 151-168. (e-journal)
- *Baleras, Roger, 'Nuclear Proliferation: Myth and Reality' in Director's Series on Proliferation eds. Kathleen C Bailey and M Elaine Price. Livermore, CA: Lawrence Livermore National Laboratory (November 17, 1995) 9-13.
- Byman, Daniel. 'US Counter-terrorism Options: A Taxonomy.' *Survival*, Vol. 49, 3 (September 2007),

121 – 150. (e-journal)

- Dolnik, Adam. “Die and Let Die: Exploring Links between Suicide Terrorism and Terrorist Use of Chemical, Biological, Radiological, and Nuclear Weapons,” *Studies in Conflict & Terrorism* Vol. 26 (2003),17-35. (ejournal)
- Hoffman, Bruce. ‘Terrorism and WMD: Some Preliminary Hypotheses.’ *Nonproliferation Review* 4, 3 (Spring-Summer 1997), 45-53. Available at: <http://cns.miis.edu/pubs/npr/vol04/43/hoffma43.pdf>
- Nacos, Brigitte L. ‘The Terrorist Calculus behind 9-11: A Model for Future Terrorism?’ *Studies in Conflict & Terrorism* Vol. 26, 1 (January 2003), 1 – 16. (ejournal)
- Parachini, John V. ‘Comparing Motives and Outcomes of Mass Casualty Terrorism Involving Conventional and Unconventional Weapons.’ *Studies in Conflict and Terrorism* 24 (2001) 389-406. (ejournal)
- Posen, Barry R. “The Struggle against Terrorism: Grand Strategy, Strategy, and Tactics,” *International Security* 26, #3 (2002) 39-55. (ejournal)
- *Rapoport, David C. “Terrorism and Weapons of the Apocalypse.” *National Security Studies Quarterly* 5, 3 (Summer 1999), 49-67.
- Salama, Sammy & Kathleen Thompson. ‘The Historical Roots of Current Terrorist Tactics and Methods.’ Center for Nonproliferation Studies, November 21, 2003. Available at: <http://cns.miis.edu/pubs/week/031121.htm>.
- Trager, Robert F. and Dessislava P. Zagorcheva. ‘Deterring Terrorism: It Can Be Done.’ *International Security* Vol. 30, No. 3 (Winter 2005/06), 87-123. (ejournal)
- White House. “National Strategy to Combat Terrorism.” Available at http://www.whitehouse.gov/news/releases/2003/02/counter_terrorism/counter_terrorism_strategy.pdf
- Zanders, Jean Pascal, Ervard Karlsson, Lena Melin, Erik Naslund and Lennart Thaning. “Appendix 9a: Risk Assessment of Terrorism with Chemical and Biological Weapons.” *SIPRI Yearbook 2000*. Oxford: Oxford University Press, 2000, 537-559. Available at [Http://projects.sipri.se/cbw/research.cbw-ybook20009a.pdf](http://projects.sipri.se/cbw/research.cbw-ybook20009a.pdf).

Further reading:

- *“Terrorism.” *Current History* 99, 636 (April 2000). Especially articles by Tucker, Cameron, Juergensmeyer. (LSE)
- ‘Biological Warfare.’ Special issue of *Emerging Infectious Diseases* vol.5, No 4 (July-August 1999), available at <http://www.cdc.gov/ncidod/eid/vol5no4/contents.htm>.
- *Bunn, Matthew and Anthony Weir. ‘The Seven Myths of Nuclear Terrorism.’ *Current History* April 2005, 1523-161.
- Moore, G.M. ‘Radiological Weapons: How Great is the Danger?’ UCRL-ID-154879. US Department of Energy: Lawrence Livermore National Laboratory (June 1, 2003). (Available from Dr Martin.)
- Tenet, George. “Testimony before the Senate Armed Services Committee, ‘Worldwide Threat - Converging Dangers in a Post 9/11 World,’” 19 March 2002, found at: http://www.cia.gov/cia/public_affairs/speeches/archives/2002/senate_select_hearing_03192002.html
- Mousseau, Michael. ‘Market Civilization and Its Clash with Terror.’ *International Security* Vol. 27, No. 3 (Winter 2002/03), 5-29. (Ejournal)
- Zimmerman, Peter and Jeffrey G. Lewis, 'The bomb in the backyard.' *Foreign Policy* Nov-Dec 2006 (ejournal).
- *Allison, Graham. ‘The Ongoing Failure of Imagination.’ *Bulletin of Atomic Scientists* September/October 2006, 36-41. Available on-line.
- *Arkin, William M. ‘The Continuing Misuse of Fear.’ *Bulletin of Atomic Scientists* (September/October 2006), 42-45. Available on-line.
- Jenkins, Brian Michael. *Will Terrorists go Nuclear?* Rand, 1975. Free download available at: <http://www.rand.org/pubs/papers/P5541/>.

Part II: The Problem of Proliferation: Policy Solutions?

11. Disarmament

Is total or partial disarmament feasible? What is required for disarmament to take place?

Group assignments: (more information handed out in class)

*What is the role, if any, of deterrence in disarmament?
Use the case of ballistic missiles to illustrate how one analyzes the likely effects of disarmament.
What is the connection between nuclear disarmament and full and complete disarmament, if any?*

Required reading:

- *Booth, Ken and Nicholas J. Wheeler. "Beyond Nuclearism" in *Security without Nuclear Weapons* ed. Regina Cowan Karp. Oxford: Oxford University Press, 1992, 21-55. (KCL)
- *Forsberg, Randall "The Freeze and Beyond: Confining the Military to Defense as a Route to Disarmament" *World Policy* 1 (Winter 1984), 285-318.
- *Karp, Regina Cowan. "Introduction" in *Security without Nuclear Weapons* ed. Regina Cowan Karp. Oxford: Oxford University Press, 1992, 1-20. (KCL)
- *Schelling, Thomas. "The Role of Deterrence in Total Disarmament," *Foreign Affairs* 1962 (LSE); see also Schelling, Thomas C. "Stability in a Disarmed World" from *Arms and Influence* (New Haven, CT: Yale University Press, 1966), 248-25 (KCL), reprinted in Robert J. Art and Kenneth N. Waltz, eds., *The Use of Force* 4th edition. Lanham, Maryland: University Press of America, 1993, 585-593.
- *U.S. Arms Control and Disarmament Agency. *Blueprint for the Peace Race: Outline of Basic Provisions of a Treaty on General and Complete Disarmament in a Peaceful World*. 1962
- Schelling, Thomas C. "Abolishing Ballistic Missiles." *International Security* 12, 1. (Summer, 1987), 179-183. (KCL)
- Sloss, Leon. "A World Without Ballistic Missiles." *International Security* 12, 1. (Summer, 1987), 184-189. (KCL)
- Forsberg, Randall. "Abolishing Ballistic Missiles: Pros and Cons." *International Security* 12, 1 (Summer, 1987), 190-196. (KCL)

12. Arms Control

What is arms control? Has it been a success in the past? Does it still have a role to play in today's world?

Required reading:

- Larsen, Jeffrey A.. ed. *Arms Control: Cooperative Security in a Changing Environment*. Boulder, CO: Lynne-Rienner Press, 2002.
- *Quester, George H. 'Some Long-Run Trends in Arms Control' in *The Future of Nuclear Deterrence*. Lexington, MA: Lexington Books, 1986, 293-321.
- Davis, Zachary S. "The Convergence of Arms control and Nonproliferation: Vive la Difference." *The Nuclear Nonproliferation Review* (Spring Summer 1999) 6, #3, 98-107. Available on the web.

13. Treaties: The Nuclear Nonproliferation Treaty, The Biological Weapons Convention, and the Chemical Weapons Convention

Compare and contrast the major strengths and weaknesses and effectiveness of these treaties. What explains the differences? What if anything can be done to strengthen them?(small groups/group presentations)

Required readings

- Text of the three treaties. Available on-line.
- Bunn, George. 'The Nuclear Nonproliferation Treaty: History and Current Problems.' *Arms Control Today* (December 2003). Available at: http://www.armscontrol.org/act/2003_12/Bunn.asp
- Burns, E.L.M. "The Nonproliferation Treaty: Its Negotiation and Prospects." *International Organization*, 23, 4 (Autumn, 1969), 788-807.(ejournal)
- Johnson, Rebecca. "Incentives, Obligations And Enforcement: Does the NPT Meet its States Parties' Needs?" *Disarmament Diplomacy* 70, April - May 2003 Available at: <http://www.acronym.org.uk/npt/03npt01.htm>
- *McNamara, Robert S. 'The Diffusion of Nuclear Weapons with and without a Test Ban Agreement.' Secret [declassified] memorandum for the President. Washington DC: Office of Secretary of Defense, 12 February 1963.
- Moodie, M. 'Fighting the Proliferation of Biological Weapons: Beyond the BWC Protocol.' *Disarmament Forum* #4 (2000), Available at: <http://www.unidir.org/pdf/articles/pdf-art113.pdf>

- *Nye Jr., Joseph S. "NPT: The Logic of Inequality," *Foreign Policy*, Summer 1985.
- Simpson, John and Jenny Nielsen. "The The 2005 Non-Proliferation Treaty Review Conference: Mission Impossible?" *The Nonproliferation Review* vol. 12, 2 (Summer 2005). Available on-line.
- Sims, Nicholas A. "The BTWC in Historical Perspective: From Review and Strengthening Processes to an Integrated Treaty Regime." *Disarmament Forum* #4 (2000), available at: <http://www.unidir.org/pdf/articles/pdf-art109.pdf/>
- Tucker, Jonathan B. "Challenges to the CWC." CNS Occasional papers #3. Available at: <http://cns.miis.edu/pubs/opapers/op3/op3.pdf>.
- Tucker, Jonathan B. "The New BWC Process: A Preliminary Assessment." *The Nonproliferation Review* vol. 11, #1 (Spring 2004). Available at: <http://cns.miis.edu/pubs/npr/vol11/111/111tucker.pdf>
- Zanders, Jean Pascal and Elisabeth M. French. "Article XI of the Chemical Weapons Convention: Between Irrelevance and Indispensability" *Contemporary Security Policy*, 20, 1 (April 1999), 56-85. (ejournal)
- *Zanders, Jean Paul. Article X
Available at: <http://www.ccc.nps.navy.mil/si/2004/jan/DOD%20Memorandum%2012Feb1963.pdf>.

14. Defence

What are the prospects for defense against CBN weapons, and how do this affect proliferation and the problems posed by possible state and terrorist use of these weapons? What are the arguments in favour of limiting offensive but not defensive weapons? What problems do such limits on offensive weapons pose? Do we need to distinguish among different types of weapons (conventional, chemical, biological, nuclear) in answering these questions?

Required readings: Read Jervis, Levy and at least two of the other articles

- Glaser, Charles L. and Steve Fetter. "National Missile Defense and the Future of US Nuclear Weapons Policy." *International Security* 26, 1 (Summer 2001), 40-92. (KCL)
- Jervis, Robert. "Cooperation under the Security Dilemma." *World Politics*, Vol. 30, No. 2. (Jan.1978), 167-214. (KCL)
- *Joseph, Robert B. and John F. Reichart. "Deterrence and Defense in a Nuclear, Biological, and Chemical Environment," *Comparative Strategy*, Vol. 15 (January/March 1996) 59-80. (KCL)
- *Lennon, Lynwood B. "Defense Planning for Chemical Warfare" and following discussion in Matthew Meselson, ed., *Chemical Weapons and Chemical Arms Control* (New York: Carnegie Endowment for International Peace, 1978), 1-17. (KCL)
- Levy, Jack S. "The Offensive-Defensive Balance of Military Technology: A Theoretical and Historical Analysis" *International Studies Quarterly* vol. 28, ~2 (June 1984) 219-238.
- Powell, Robert. "Nuclear Deterrence Theory, Nuclear Proliferation, and National Missile Defense." *International Security* vol. 27, # 4 (Spring 2003), 86-118.
- *Reed, Laura and Seth Shulman. "Perilous Path to Security? Weighing US Biodefense Against Qualitative Proliferation" in Susan Wright, ed. *Biological Warfare and Disarmament: New Problems, New Perspectives*. Lanham: Rowan and Littlefield, 2002.
- *Sidel, Victor W. "Defense against Biological Weapons: Can Immunization and Secondary Prevention Succeed?" in Susan Wright, ed. *Biological Warfare and Disarmament: New Problems, New Perspectives*. Lanham: Rowan and Littlefield, 2002.
- *Strauss, Harlee and Jonathan King. "The Fallacy of Defensive Biological Weapons Programmes" from *Biological and Toxin Weapons Today* ed. Erhard Geissler. Oxford: Oxford University Press, 1986, 66-73. (LSE)

15. Supply side policies: Export Controls and the example of the Missile Technology Control Regime

Are supply-side policies a necessary part of the nonproliferation regime? How effective are they, and does their effectiveness vary across different weapon-types? How important is it to control the spread of ballistic missiles, and what is the best way to do this?

(led by Professor Wyn Bowen)

Required readings:

- Cupitt, Richard T., Suzette Grillot, & Yuzo Murayama. "The Determinants of Nonproliferation Export Controls: A Membership-Fee Explanation." *The Nonproliferation Review* vol.8, #2 (Summer 2001).

Available at: <http://cns.miis.edu/pubs/npr/vol08/82/82cupitt.pdf>.

- Fetter, Steve. "Ballistic Missiles and Weapons of Mass Destruction: What is the Threat? What Should be Done?," *International Security* Vol. 16 (Summer 1991), 5-42. (LSE)
- Karp, Aron. 'Lessons of Iranian Missile Programs For U.S. Nonproliferation Policy.' *The Nonproliferation Review* vol. 5, #3. Available on-line.
- Mistry, Dinshaw. 'Beyond the MTCR: Building a Comprehensive Regime to Contain Ballistic Missile Proliferation.' *International Security* vol.27, #4 (Spring 2003), 119-149.
- Samore, Gary. 'U.S.-DPRK Missile Negotiations.' *The Nonproliferation Review* vol.9, #2 (Summer 2002). Available at: <http://cns.miis.edu/pubs/npr/vol09/92/92samore.pdf>. See the rest of this volume, which has other articles on missile proliferation, at: <http://cns.miis.edu/pubs/npr/vol09/92toc.htm>

16. Proliferation Supply Networks

What are proliferation supply networks, how do they work, what challenges do they pose, and how can we best address them?

Required reading

- Albright, David Albright and Corey Hinderstein. 'Unraveling the A. Q. Khan and Future Proliferation Networks.' *The Washington Quarterly* 28:2 (Spring 2005), 111-128. (ejournal)
- Braun, Chaim and Christopher F. Chyba. 'Proliferation Rings: New Challenges to the Nuclear Nonproliferation Regime.' *International Security* Vol. 29, No. 2 (Fall 2004), 5-49. (ejournal)
- Carnegie Endowment for International Peace. 'A. Q. Khan Nuclear Chronology.' *Issue Brief: Nonproliferation*. Vol. VIII. No. 8, September 7, 2005. Available at: www.carnegieendowment.org/static/npp/Khan_Chronology.pdf
- Chestnut, Sheena. 'Illicit Activity and Proliferation: North Korean Smuggling Networks.' *International Security* Volume 32, Number 1, Summer 2007. (ejournal)
- Clary, Christopher. 'A.Q. Khan and the Limits of the Non-proliferation Regime.' *Disarmament Forum: The 2005 NPT Review Conference 2004* no. 4, 33 - 42, Available at: <http://www.unidir.ch/pdf/articles/pdf-art2188.pdf>
- Fitzpatrick, Mark. Ed. . *Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks A Net Assessment*. London: IISS, 2007.
- Kampani, Gaurav. 'Second Tier Proliferation: The Case of Pakistan and North Korea.' *Nonproliferation Review* 9. 3. Available on-line.
- Montgomery, Alexander H. 'Ringling in Proliferation: How to Dismantle an Atomic Bomb Network.' *International Security*, Vol. 30, No.2, Fall 2005, 153-187. (ejournal)

Further reading:

- Corera, Gordon. *Shopping for Bombs: Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A.Q. Khan Network*. C. Hurst & Co, 2006.
- Hibbs, Mark. 'The unmaking of a nuclear smuggler.' *Bulletin of Atomic Scientists*, Vol. 62, No. (November/December 2006), 35-63. Available on-line.
- Wirtz, James. *Globalization and WMD Proliferation: Terrorism, Transnational Networks and International Security*. Routledge: 2007.

17. Counterproliferation

Required reading:

The debate:

- Kristensen, Hans M. *Nuclear Futures: Proliferation of Weapons of Mass Destruction and US Nuclear Strategy*. BASIC Research Report 98.2. London: British American Security Information Council, 1998. Available at: [http://www.basicint.org/pubs/Research/1998nuclearfutures\(2\).pdf](http://www.basicint.org/pubs/Research/1998nuclearfutures(2).pdf).
- *Pilat, Joseph F. and Walter L. Kichner. "The Technological Promise of Counterproliferation," *The Washington Quarterly*, Vol. 18, No. 1 (Winter 1995), 145-152. (LSE).
- Schneider, Barry R. "Nuclear Proliferation and Counter-Proliferation: Policy Issues and Debates," *Mershon International Studies Review*, 38, 1984:209-33. (ejournal)
- Steinbruner, John. "Confusing Ends and Means: The Doctrine of Coercive Pre-emption." *Arms Control*

Today (January/February 2003), Available at: http://www.armscontrol.org/act/2003_01-02/srteinbruner_janfeb03.asp.

United States, "National Strategy to Combat Weapons of Mass Destruction" available at <http://www.whitehouse.gov/news/releases/2002/12/WMDStrategy.pdf>.

*Wallerstein, Mitchell B. "The Origins and Evolution of the Defense Counterproliferation Initiative," in: *Countering the Proliferation and Use of Weapons of Mass Destruction*, Peter L. Hays, Vincent J. Jodoin and Alan R. Van Tassel, eds., New York: The McGraw-Hill Companies, 1998, 21-36.

United States. "The National Security Strategy of the United States of America." September 2002. Available at: <http://www.whitehouse.gov/nsc/nss.pdf>.

Case studies:

Burr, William and Jeffrey T. Richelson. "Whether to 'Strangle the Baby in the Cradle': The US and the Chinese Nuclear Program, 1960-1964," *International Security*, Vol. 25, No. 3 (Winter 2000-01). (ejournal)

*Cohen, Avner. "The Lessons of Osiraq and the American Counterproliferation Debate" in *International Perspectives on Counterproliferation*, Eds. Mitchell Reiss and Harald Muller. Washington, DC: The Woodrow Wilson Center, Working paper No. 99, 1994, 73-102.

Feldman, Shai. "The Bombing of Osiraq—Revisited." *International Security* vol. 7, #2 (Fall 1982), 114-142. (ejournal)

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Tamsett, Jeremy. 'The Israeli Bombing of Osiraq Reconsidered: Successful Counterproliferation' *The Nonproliferation Review* 11, 3 (Fall-Winter 2004), 70-85. Available on-line.

Further reading:

Litwak, Robert S. "The New Calculus of Pre-emption." *Survival* 44,4 (Winter 2002-03), 53-80.

Schneider, Barry R. *Future War and Counterproliferation: U.S. Military Responses to NBC Proliferation Threats*. Westport: Praeger, 1999.

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U.S. Office of the Secretary of Defense, *Proliferation: Threat and Response*, (Washington, D.C.: USGPO). 2001 edition available at <http://www.defenselink.mil/pubs/ptr20010110.pdf>; 1997 version available at <http://www.defenselink.mil/pubs/prolif97/toc.html>; 1996 version available at <http://www.defenselink.mil/pubs/prolif/toc.html>.

Wirtz, James J. "Counterproliferation, Conventional Counterforce and Nuclear War" from *Preventing the Use of Weapons of Mass Destruction* ed Eric Herring. London: Frank Cass, 2000, 5-24. Available from Dr Martin

18. New Approaches to Nonproliferation

What new approaches to nonproliferation are being discussed and implemented, and how well do you think they address current problems with the nonproliferation regime? Is there more to be done?

Group assignments: human capital, nuclear fuel cycle, PSI and criminalization.

Ball, Deborah Yarsike and Theodore P. Gerber. 'Russian Scientists and Rogue States: Does Western Assistance Reduce the Proliferation Threat?' *International Security* Spring Vol. 29, No. 4 (2005), 50-77. (ejournal)

Carrigan, Alisa. 'A Peripheral Threat? Addressing Dissemination of Human Capital in the Nuclear Non-Proliferation Regime.' Paper presented at the annual meeting of the International Studies Association, Hilton Hawaiian Village, Honolulu, Hawaii, Mar 05, 2005 Available at: http://www.allacademic.com/meta/p69859_index.html

Criminalizing CBW: See background information proposed treaty at:

<http://www.sussex.ac.uk/Units/spru/hsp/Harvard-Sussex-Program-draft-convention.htm>

*Duffy, Gloria. 'Cooperative Threat Reduction in Perspective', in John M. Shields & William Potter, eds, *Dismantling the Cold War: US and NIS Perspectives on the Nunn-Lugar Cooperative Threat Reduction Program*. Cambridge, MA: MIT Press, 1997, 23-29.

- Gottemoeller, Rose E. 'Cooperative Threat Reduction beyond Russia.' *The Washington Quarterly* Vol. 28, No. 2 (Spring 2005), 145-158. (Ejournal)
- Moody, R. Adam. 'Reexamining Brain Drain from the Former Soviet Union.' *The Nonproliferation Review/Spring-Summer 1996*. Available on-line.
- Neff, Thomas L. 'The Nuclear Fuel Cycle and The Bush Nonproliferation Initiative.' For World Nuclear Fuel Cycle 2004 . Available at: www.iaea.org/NewsCenter/Focus/FuelCycle/neff.pdf
- Scheinman, Lawrence. 'The Nuclear Fuel Cycle: A Challenge for Nonproliferation.' *Disarmament Diplomacy* Issue No. 76 (March/April 2004). Available at: <http://www.acronym.org.uk/dd/dd76/76ls.htm>
- Sharon Squassoni. 'Proliferation Security Initiative (PSI).' CRS Report for Congress, Sept 14, 2006. Available at: www.fas.org/sgp/crs/nuke/RS21881.pdf
- US Department of State. 'What is the Proliferation Security Initiative?' June 2004. See PDF posted at: <http://usinfo.state.gov/products/pubs/proliferation/>.
- Valencia, Mark J. *The Proliferation Security Initiative: Making waves in Asia*. Adelphi Paper 376, 2005. (LSE)

19. Debate: The Dangers of Proliferation

What are the dangers posed by nuclear proliferation? Are there any benefits to nuclear proliferation? How do the advantages and disadvantages of nuclear proliferation compare to the proliferation of other types of weapons?

Required reading:

Sagan, Scott D. and Kenneth N. Waltz. *The Spread of Nuclear Weapons: A Debate*. New York: Norton, 1995. (KCL) *If you have already read Sagan and Waltz, you should concentrate on the material in the further reading section.*

Further reading:

- Arquilla, John. 1997. "Nuclear Weapons in South Asia: More May Be Manageable." *Comparative Strategy* 16 (April): 13-32.
- Bowen, Clayton P. and Daniel Woven. "Command and Control Challenges in South Asia." *The Nuclear Nonproliferation Review* (Spring Summer 1999) 6, #3, 25-35. Available on the web.
- Bueno de Mesquita, Bruce and William Riker, "An Assessment of the Merits of Selective Nuclear Proliferation," *Journal of Conflict Resolution*, 26, 2 (1982), pp. 283-306. (ejournal)
- Carranza, Mario E. "An Impossible game: Stable Nuclear Deterrence after the Indian and Pakistani Nuclear tests." *The Nuclear Nonproliferation Review* (Spring Summer 1999) 6, #3, 11-24. Available on the web.
- David, Steven R, Brahma Chelaney, Shai Feldman, Brad Roberts, Kenneth Waltz and Scott Sagan. 'The Kenneth Waltz-Scott Sagan Debate.' *Security Studies* 4,4 (1995), 773-810.
- Dunn, Lewis A. "Rethinking the Nuclear Equation: The United States and the New Nuclear Powers." *The Washington Quarterly* 17:1 (Winter 1994), pp. 5-25.
- Feaver, Peter D. "Neoptimists and the Enduring Problem of Nuclear Proliferation," *Security Studies* Vol. 6, No. 4 (Summer 1997), pp.93-125.
- Hagerty, Devin T. *The Consequences of Nuclear Proliferation: Lessons from South Asia*. Cambridge, MA: MIT Press, 1998.
- Karl, David J. "Proliferation Pessimism and Emerging Nuclear Powers," *International Security* Vol. 21, No.3 (Winter 1996-1997), 87-119 and the debate among Feaver, Sagan, and Karl, "Proliferation Pessimism and Emerging Nuclear Powers." *International Security* vol. 22, #2 (Fall 1997). (ejournal)
- Lavoy, Peter. 'The Strategic Consequences of Nuclear Proliferation.' *Security Studies* 4,4 (1995), 695-753.
- Seng, Jordan. "Less is More: Command and Control Advantages of Minor Nuclear States." *Security Studies* vol. 6, #4 (Summer 1997), 50-92.
- Seng, Jordan. "Optimism in the Balance: A Response to Peter Feaver," *Security Studies* Vol. 6, No. 4 (Summer 1997), pp. 126-136.

20. The Future

What can we say about the likely course of proliferation? How serious a problem will this be in the foreseeable future?

Required reading:

- Dunn, Lewis A. 'Countering Proliferation: Insights from Past 'Wins, Losses, and Draws.' *Nonproliferation Review*. Vol. 13, 3. Available on-line.
- Froscher, Torrey C. 'Anticipating Nuclear Proliferation: Insights from the Past.' *Nonproliferation Review* 13, 3. Available on-line.
- Ikle, Fred Charles. "The Deconstruction of Death: The Coming Politics of Biotechnology" *The National Interest* (Winter 2000). Available at:
http://findarticles.com/p/articles/mi_m2751/is_2000_Winter/ai_68547476/print.
- Hughes, Llewelyn. 'Why Japan Will Not Go Nuclear (Yet): International and Domestic Constraints on the Nuclearization of Japan.' *International Security* Vol. 31, No. 4 (Spring 2007), 67-96.
- Kristensen, Hans M. 'U.S. Strategic War Planning After 9/11.' *Nonproliferation Review* 13, 3. Available on-line.
- Lavoy, Peter R. 'Nuclear Proliferation Over the Next Decade: Causes, Warning Signs, and Policy Responses.' *Nonproliferation Review* 13, 3. Available on-line.
- Mochizuki, Mike M. 'Japan Tests the Nuclear Taboo.' *Nonproliferation Review* 13, 3. Available on-line.
- Tetrajs, Bruno. 'The Last to Disarm?: The Future of France's Nuclear Weapons.' *Nonproliferation Review* 13, 3. Available on-line.
- Wheelis, M and M. Dando. 'New Technology and Future Developments in Biological Warfare.' *Disarmament Forum* #4 (2000). Available at: <http://www.unidir.org/pdf/articles/pdf-art115.pdf>