# Readings in Cooperative Security, Arms Control, and Nonproliferation Policy

PUAF 798M Fall 2021 Tuesday 1:30-4:00 pm VMH 1101 Professor Nancy Gallagher 4113 B Van Munching Hall Office Hours: by apt (301) 405-7610 ngallag@umd.edu

## **Description**

The central dilemma of the nuclear age is how to obtain the benefits but avoid the risks of an extraordinarily powerful technology when no state can control its spread nor protect itself unilaterally against attacks or accidents. Since the end of the Cold War, policymakers and security experts have continued to grapple with that question in forms compounded by proliferation, terrorism, civil conflict, and climate change. A new nuclear arms race involving rapid advances in offensive and defensive capabilities, or a conventional crisis that escalates into a nuclear war, now seems like possibilities again, reviving questions about whether arms control can reduce the risks and costs of competition between the United States and a range of potential adversaries, including Russia, China, North Korea, and Iran.

At the same time, policymakers and experts also have been trying to figure out what mix of unilateral action and cooperation can best address information-age problems, including space security, cyber-security, and bio-security. These dual-use technologies share many features with nuclear technology. They also differ in ways that make it even harder to control their spread, prevent deliberate or inadvertent misuse, and defend against attack. The space and cyber domains connect to the nuclear domain in complicated ways, too. Some see these connections as asymmetrical opportunities to gain competitive advantage. Others view them as compelling reasons to develop cooperative constraints in realms that do not seem well suited to traditional arms control.

The course first examines various ways of thinking about international security cooperation developed during and after the Cold War. The second part considers policy options to reduce different types of nuclear risks, including bilateral strategic instability, proliferation, terrorist access, and dual-use capabilities in countries like Iran. The third part focuses on emerging security challenges from the spread of powerful multi-use technologies and other dangerous processes, like civil conflict, climate change and global pandemics that need new forms of cooperation.

#### Requirements

This course is designed to help students deepen their substantive knowledge, improve their analytical and communication skills, work collaboratively, and conduct original research.

Students should prepare thoroughly, attend consistently, participate actively in seminar sessions, and engage regularly in on-line discussions. We will follow UMD's graduate course-related policies and current covid-19 protocols.

Students will maintain the highest standards of professional behavior and will adhere to the University of Maryland's <u>Code of Academic Integrity</u> at all times. Please e-mail me in advance, if possible, if you must miss class for any reason. If you must miss class more than once during the semester, please check with me regarding make-up assignments. If you must miss more than twice for medical reasons, documentation from a health care professional may be required.

It is my intent that students from all backgrounds and perspectives will be well-served by this course. The diversity they bring is a resource, strength and benefit. Class materials, discussions, and activities will be respectful of all forms of diversity, and class members will actively promote this aim through their words, actions, and interactions.

Students are expected to keep abreast of current events related to the subject matter of the course. Some CISSM forums held biweekly on Thursdays will be of particular relevance to this class, and students are strongly encouraged to attend. If you are not on the CISSM forum mailing list already, you can subscribe at: <a href="https://www.cissm.umd.edu">www.cissm.umd.edu</a>.

Students will gain practical experience designing, conducting, and presenting an original policy analysis on some aspect of international security cooperation. Oral presentations will be scheduled during the last third of the semester, and the final paper (5,000 words) will be due one week after the last class session.

Grading criteria for the papers will be similar to those for 720 policy memos, but substantial independent research and original analysis will be expected:

- 1) Does it have a clear, coherent, compelling, and creative central argument?
- 2) Is that central argument well supported?
- 3) Are counter-arguments and/or alternative points of view weighed?
- 4) Are important and interesting policy implications drawn from the analysis?
- 5) Is the memo professionally written grammatically correct, appropriate tone, fact-checked, numbered pages, etc.?

Research questions should be approved before the fourth class session (Sept 21). An analytical outline is due by the eighth session (Oct. 19). Students will give rough drafts to me and a peer editor by the thirteenth session (no later than Nov. 23), and receive feedback by the following week (NLT Nov 30). Students will also give class presentations during the last four weeks of the semester. The final paper is due by 5 pm one week after the last class (i.e. on Dec. 14<sup>th</sup>).

In-class participation	10%
Discussion board	10%
Research paper analytical outline	10%
Research paper rough draft	20%
Constructive critiques	10%
Research paper presentation	15%
Final policy research paper	25%

#### **Readings and Resources**

This course is organized around security challenges, conceptual issues, and policy debates that comprise the Center for International and Security Studies at Maryland's research agenda. A series of CISSM research analyses are assigned throughout the semester to provide coherence and continuity across the range of topics covered. Students are also asked to read a number of influential conceptual pieces, recent policy articles, and official reports. Many of these are available on the internet, and links have been provided. The remainder of the assigned readings are placed on reserve using the ELMS system.

To access all assigned readings, go to <a href="https://elms.umd.edu">https://elms.umd.edu</a> and enter your user name and password (the same ones that you use to access your University of Maryland email account), and then click on PLCY 798M. In the "modules" section, you will find the syllabus, a general resources folder, and a module that corresponds to each class session. Please let me know ASAP if you have problems accessing any course readings.

Depending on class interests and developments in current policy debates, I may supplement or substitute readings as the semester progresses, so please use the course website for the most up-to-date information.

### **Schedule and Reading Assignments**

### (1) Introduction (August 31)

Katlyn Turner, et al., "A Call for Antiracist Action and Accountability in the US Nuclear Community," *Bulletin of the Atomic Scientists* (August 24, 2020) at: <a href="https://thebulletin.org/2020/08/a-call-for-antiracist-action-and-accountability-in-the-us-nuclear-community">https://thebulletin.org/2020/08/a-call-for-antiracist-action-and-accountability-in-the-us-nuclear-community</a>

#### (2) Explaining Arms Control and Nonproliferation Outcomes (Sept. 7)

Understanding how well-written articles are structured will make you a more efficient reader and better writer. Please read: "Writing for International Security," at www.belfercenter.org/publication/writing-international-security-contributors-guide.

Then, apply the analytical reading summary technique I taught you to the following articles:

Thomas Schelling, "Reciprocal Measures for Arms Stabilization," pp. 167-186 in Donald G. Brennan, ed., *Arms Control, Disarmament, and National Security* (New York: George Braziller, 1961).

Kenneth Oye, "Explaining Cooperation under Anarchy: Hypotheses and Strategies," *World Politics* (October 1985), pp. 1-24.

Peter B. Evans, et al., eds, *Double Edged Diplomacy* (1993), "Integrating International and Domestic Theories of International Bargaining," pp. 3-42.

Steven Miller, "Politics over Promise: Domestic Impediments to Arms Control," *International Security* 8:4 (Spring 1984), pp. 67-90.

Robert Keohane, "International Institutions: Two Approaches," *International Studies Ouarterly* 32:4 (December 1988), pp. 379-396.

Emanuel Adler, "The Emergence of Cooperation: National Epistemic Communities and the International Evolution of the Idea of Nuclear Arms Control" *International Organization*, Vol. 46, No. 1, (Winter 1992), 101-145.

Nina Tannenwald, "Stigmatizing the Bomb: The Origins of the Nuclear Taboo," *International Security*, (Spring 2005), pp. 5-49.

## (3) Global Governance or Globaloney? (Sept. 14)

Mark Bevir and Ian Hall, "The Rise of Security Governance," in *Interpreting Global Security*, ed. Mark Bevir, Oliver Daddow, and Ian Hall, New York: Routledge, 2014.

"Our Global Neighborhood," The Report of the Commission on Global Governance (1995), summary

Michael N. Barnett and Martha Finnemore, "The Politics, Power, and Pathologies of International Organizations," *International Organizations* 53:4 (Autumn 1999), 699-732.

Ann-Marie Slaughter, "The Real New World Order," Foreign Affairs (September/October 1997)

Margaret Keck and Kathryn Sikkink, "Transnational Advocacy Networks in International and Regional Politics," *International Social Science Journal* 51 (1999), pp. 89-101.

Rebecca Johnson, Lessons for Future Multilateral Security Negotiations," chapter 8 of *Unfinished Business: The Negotiation of the CTBT and the End of Nuclear Testing* (UNIDIR, 2009), at: <a href="http://www.unidir.org/files/publications/pdfs/unfinished-business-the-negotiation-of-the-ctbt-and-the-end-of-nuclear-testing-346.pdf">http://www.unidir.org/files/publications/pdfs/unfinished-business-the-negotiation-of-the-ctbt-and-the-end-of-nuclear-testing-346.pdf</a>

John Bolton, "Should We Take Global Governance Seriously?" *Chicago Journal of International Law* 205 (Fall 2000), pp. 205-221

# (4) Cooperative Security in Principle and in Practice (Sept. 21) \*\*Research Question Due\*\*

Ashton B. Carter, William J. Perry, and John D. Steinbruner, "A New Concept of Cooperative Security," Brookings Occasional Paper (1992)

Antonia Handler Chayes and Abram Chayes, "Regime Architecture: Elements and Principles," pp. 65–130 in Janne Nolan, ed., *Global Engagement* (Brookings, 1994)

Gregory Flynn and Henry Farrell, "Piecing Together the Democratic Peace: The CSCE, Norms, and the 'Construction' of Security in the Post-Cold War Europe," *International Organization* 53:3 (Summer 1999), pp. 505-535

Sharon Weiner, "The Evolution of CTR," *The Nonproliferation Review* 16:2 (June 2009), pp. 211-235.

# (5) Reducing Nuclear Risks with Russia (Sept. 28)

Play the Nuclear Decisions Game at: https://nuclear-decisions.netlify.app/

Nancy Gallagher, "Re-Thinking the Unthinkable: Arms Control in the Twenty-first Century," *The Nonproliferation Review* 22:3-4 (2015), pp. 469-498.

Remarks by President Barack Obama, <a href="https://www.documentcloud.org/documents/3119179-2009-Obama-Prague-Speech.html">https://www.documentcloud.org/documents/3119179-2009-Obama-Prague-Speech.html</a>

"New START at a Glance," Arms Control Association: https://www.armscontrol.org/factsheets/NewSTART

Office of the Secretary of Defense, Nuclear Posture Review, February 2018, Executive Summary: <a href="https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF">https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF</a>

Olga Oliker and Andrey Baklitsky, "The Nuclear Posture Review and Russian 'De-Escalation:' a Dangerous Solution to a Nonexistent Problem," *War on the Rocks*, February 20, 2018, at: <a href="https://warontherocks.com/2018/02/nuclear-posture-review-russian-de-escalation-dangerous-solution-nonexistent-problem/">https://warontherocks.com/2018/02/nuclear-posture-review-russian-de-escalation-dangerous-solution-nonexistent-problem/</a>.

Marshall Billingslea, "The Future of Arms Control," Hudson Institute, May 21, 2020, at: <a href="https://www.hudson.org/research/16062-transcript-special-presidential-envoy-marshall-billingslea-on-the-future-of-nuclear-arms-control">https://www.hudson.org/research/16062-transcript-special-presidential-envoy-marshall-billingslea-on-the-future-of-nuclear-arms-control</a>

Alexei Arbatov, "MAD Momentum Redux: The Rise and Fall of Arms Control," *Survival* (June/July 2019), at: <a href="https://www.iiss.org/publications/survival/2019/survival-global-politics-and-strategy-junejuly-2019/613-02-arbatov">https://www.iiss.org/publications/survival/2019/survival-global-politics-and-strategy-junejuly-2019/613-02-arbatov</a>

James Timbie, "A Way Forward," Daedalus 149:2 (April 2020), pp. 190-204

David Cooper, Arms Control for the Third Nuclear Age: Between Disarmament and Armageddon (Georgetown University Press, 2021), pp. 1-37.

# (6) Engaging China on Arms Control (Oct. 5)

Nancy Gallagher, "China on Arms Control, Nonproliferation, and Strategic Stability," in James Smith and Paul Bolt, eds., *China as a 21<sup>st</sup> Century Strategic Power* (Washington, DC: Georgetown University Press, 2021).

Keir A. Lieber and Daryl Press, "The New Era of Counterforce," *International Security* 41:4 (Spring 2017), pp. 9-49.

Gregory Kulacki, "China's Military Calls for Putting its Nuclear Forces on Alert," Union of Concerned Scientists, (January 2016), at:

https://www.ucsusa.org/sites/default/files/attach/2016/02/China-Hair-Trigger-full-report.pdf

James Acton, "Escalation through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War," *International Security* 43:1 (Summer 2018), pp 56-99.

Tong Zhao, "The Case for China's Participation in Trilateral Arms Control," pp. 68-95 in Ulrich Kuhn, ed., *Trilateral Arms Control*, Institute for Peace Research and Security Policy at the University of Hamburg (March 2020), at:

https://ifsh.de/file/publication/Research\_Report/002/20200224\_IFSH\_Research\_Report\_002\_final.pdf

# (7) Space Security (Oct. 12)

Nancy Gallagher and John D. Steinbruner, *Reconsidering the Rules for Space Security*, American Academy of Arts and Sciences, (2008), at: <a href="https://www.amacad.org/sites/default/files/publication/downloads/space-security.pdf">https://www.amacad.org/sites/default/files/publication/downloads/space-security.pdf</a>

Baohui Zhang, "The Security Dilemma in the U.S.-China Military Space Relationship: The Prospects for Arms Control," *Asian Survey* 51:2 (March/April 2011), pp. 311-332

Marcia Smith, "White House releases Fact Sheet on New National Space Strategy, *Space Policy On-line* (March 24, 2018) at: <a href="https://spacepolicyonline.com/news/white-house-releases-fact-sheet-on-new-national-space-strategy/">https://spacepolicyonline.com/news/white-house-releases-fact-sheet-on-new-national-space-strategy/</a>

Chris Chyba, "New Technologies and Strategic Stability," *Daedalus* 149:2 (April 2020), pp. 150-170.

Alexey Arbatov, "Arms Control in Outer Space: The Russian Angle and a Possible Way Forward," *Bulletin of the Atomic Scientists* 75:4 (2019), pp. 151-161.

Paul Meyer, "Arms Control in Outer Space: Mission Impossible or Unrealized Potential?" Canadian Global Affairs Institute (October 2020) at:

https://www.cgai.ca/arms\_control\_in\_outer\_space\_mission\_impossible\_or\_unrealized\_pote ntial

# (8) Cybersecurity (Oct. 19) \*\* Analytical Outlines Due \*\*

background: David Clark, Thomas Berson, and Herbert. S. Lin, eds., *At the Nexus of Cybersecurity and Public Policy: Some Basic Concepts and Issues*, (National Academies of Sciences, 2014) at: <a href="https://docs.house.gov/meetings/IF/IF02/20150303/103079/HHRG-114-IF02-20150303-SD006.pdf">https://docs.house.gov/meetings/IF/IF02/20150303/103079/HHRG-114-IF02-20150303-SD006.pdf</a>.)

Charles Harry and Nancy Gallagher, "An Effects-Centric Approach to Assessing Cybersecurity Risk," *CISSM Policy Report* (March 2019) at: <a href="https://cissm.umd.edu/research-impact/publications/effects-centric-approach-assessing-cybersecurity-risk">https://cissm.umd.edu/research-impact/publications/effects-centric-approach-assessing-cybersecurity-risk</a>

Joseph Nye, "Deterrence and Dissuasion in Cyberspace," *International Security* 41:3 (Winter 2016/2017), pp. 44-71.

Paul Nakasone and Michael Sulmeyer, "How to Compete in Cyberspace: Cyber Command's New Approach," *Foreign Affairs* (August 25, 2020),

Lincoln Pigman, "Russia's Vision of Cyberspace: A Danger to Regime Security, Public Safety, and Societal Norms and Cohesion," *Journal of Cyber Policy* 4:1 (2019), 22-34.

"International Code for Information Security" submitted by China, Russia, and other countries to the 2011 UNGA: <a href="http://www.fmprc.gov.cn/mfa\_eng/wjb\_663304/zzjg\_663340/jks\_665232/kjfywj\_665252/t858978.shtml">http://www.fmprc.gov.cn/mfa\_eng/wjb\_663304/zzjg\_663340/jks\_665232/kjfywj\_665252/t858978.shtml</a>

Theresa Hitchens and Nancy Gallagher, "Building Confidence in the Cybersphere: a Path to Multilateral Progress," *Journal of Cyber Policy* 4:1 (2019), 4-21.

#### (9) Nuclear Nonproliferation, Counter-proliferation or Prohibition? (Oct. 26)

Nuclear Nonproliferation Treaty: https://www.un.org/disarmament/wmd/nuclear/npt/text

NPT Review and Extension Conference, Decision 2: Principles and Objectives for Nuclear Nonproliferation and Disarmament: <a href="https://unoda-web.s3-accelerate.amazonaws.com/wp-content/uploads/assets/WMD/Nuclear/1995-NPT/pdf/NPT">https://unoda-web.s3-accelerate.amazonaws.com/wp-content/uploads/assets/WMD/Nuclear/1995-NPT/pdf/NPT</a> CONF199501.pdf

Jeffrey Knopf, "Nuclear Disarmament and Nonproliferation: Examining the Linkages Argument," *International Security* 37:3 (Winter 2012/2013), pp. 92-132.

Martin Malin, "The Effectiveness and Legitimacy of the Use of Force to Prevent Nuclear Proliferation," pp. 81-122 in Oliver Meier and Christopher Daase, eds., *Arms Control in the 21st Century: Between Coercion and Cooperation* (London: Routledge, 2013).

Remarks by President Barack Obama, <a href="https://www.documentcloud.org/documents/3119179-2009-Obama-Prague-Speech.html">https://www.documentcloud.org/documents/3119179-2009-Obama-Prague-Speech.html</a>

"Spanning the NPT Divide" — perspectives from Jayantha Dhanapala, Sergio Duarte, Henk Cor van der Kwast, Andrey Baklitskiy, and Beatrice Fihn, *Arms Control Today* (July/August 2015), pp. 8–22.

Chris Ford, "NPT Wisdom for a New Disarmament Discourse," remarks to Ploughshares Fund "Nuclear Weapons Policy in a Time of Crisis Conference, Washington, DC, October 26, 2017 at: <a href="https://www.newparadigmsforum.com/p2041">https://www.newparadigmsforum.com/p2041</a>

Rebecca Davis Gibbons, "Addressing the Nuclear Ban Treaty," *The Washington Quarterly* (Spring 2019) pp. 27-40.

## (10) Nuclear Energy and Nuclear Security (Nov 2)

Matthew Bunn and Martin Malin, "Enabling a Nuclear Revival—and Managing its Risks," *Innovations* 4:4 (Fall 2009) at:

https://www.belfercenter.org/sites/default/files/files/publication/Enabling-a%20Nuclear-Revival-and-Managing-Its-Risks.pdf.

John Steinbruner, "Anticipating Climate Mitigation: the Role of Small Modular Reactors," CISSM Working Paper, July 6, 2014, at: <a href="https://cissm.umd.edu/sites/default/files/2019-07/anticipating climate mitigation the role of smrs">https://cissm.umd.edu/sites/default/files/2019-07/anticipating climate mitigation the role of smrs 082614.pdf</a>

Laura Holgate, "A Reflective Piece on the Nuclear Security Summits," pp. 4-9 in *The Nuclear Security Summits: An Overview of State Actions to Curb Nuclear Terrorism,* An Arms Control Association and Fissile Materials Working Group Report (July 2018), at: <a href="https://www.armscontrol.org/sites/default/files/files/Reports/NSS">https://www.armscontrol.org/sites/default/files/files/Reports/NSS</a> Report2018 digital.pdf.

Leah Matchett, "The Controversial Legacy of the Nuclear Security Summit," *The Bulletin of Atomic Scientists* (October 4, 2018) at: <a href="https://thebulletin.org/2018/10/the-controversial-legacy-of-the-nuclear-security-summit/">https://thebulletin.org/2018/10/the-controversial-legacy-of-the-nuclear-security-summit/</a>

Matthew Bunn, Nickolas Roth, and William Tobey, "Global Nuclear Security since 2016: A Progress Assessment," pp. 45-104 (skim) in *Revitalizing Nuclear Security in an Age of Uncertainty* (Managing the Atom Project Report, Belfer Center, Harvard University) January 2019 at: <a href="https://www.belfercenter.org/sites/default/files/2019-03/RevitalizingNuclearSecurity">https://www.belfercenter.org/sites/default/files/2019-03/RevitalizingNuclearSecurity</a> Mar19.pdf

# (11) Negotiating Counterproliferation with Renegade Regimes -- (Nov. 9) \*\* Guest Speaker: Ariel Petrivics \*\*

Ariel Petrovics, "The Right Tool for the Job," manuscript (2020).

Michael Brzoska, "The Role of Sanctions in Nonproliferation," pp. 123-145 in Oliver Meier and Christopher Daase, eds., *Arms Control in the 21st Century: Between Coercion and Cooperation* (London: Routledge, 2013).

National Intelligence Estimate: "Iran: Nuclear Intentions and Capabilities," (November 2007), http://graphics8.nytimes.com/packages/pdf/international/20071203 release.pdf

Gary Saymore, et al., "The Iran Nuclear Deal: A Definitive Guide," Belfer Center, Harvard University (August 2015), https://www.belfercenter.org/sites/default/files/files/publication/IranDealGuide2017.pdf

Remarks by President Trump on Iran Strategy, October 13, 2017, at: <a href="https://trumpwhitehouse.archives.gov/briefings-statements/remarks-president-trump-iran-strategy/">https://trumpwhitehouse.archives.gov/briefings-statements/remarks-president-trump-iran-strategy/</a>

# (12) Missile Defense and Nuclear Risk Reduction – the North Korea case (Nov. 16) \*\* Guest Speaker: Jaganath Sankaran \*\* Rough drafts group A due \*\*

Charles L. Glaser and Steve Fetter, "National Missile Defense and the Future of U.S. Nuclear Weapons Policy," *International Security* 26:1 (Summer 2001), pp. 40-92.

George N. Lewis, "Technical Controversy: Can Missile Defense Work?" pp. 63–83 in Catherine McArdle Kelleher and Peter Dombrowski, eds., *Regional Missile Defense from a Global Perspective* (Stanford University Press 2015).

Office of the Secretary of Defense, "2019 Missile Defense Review," Executive Summary: <a href="https://www.defense.gov/Portals/1/Interactive/2018/11-2019-Missile-Defense-Review/The%202019%20MDR">https://www.defense.gov/Portals/1/Interactive/2018/11-2019-Missile-Defense-Review/The%202019%20MDR</a> Executive%20Summary.pdf

Laura Grego, "Mixed Messages on Missile Defense," and Elaine Bunn, "Musings of a Missile Defense Moderate," *Arms Control Today* (March 2019)

Greg Thielmann, "Increasing Nuclear Threats through Strategic Missile Defense," *CISSM Working Paper* (July 2020) at: <a href="https://cissm.umd.edu/research-impact/publications/increasing-nuclear-threats-through-strategic-missile-defense">https://cissm.umd.edu/research-impact/publications/increasing-nuclear-threats-through-strategic-missile-defense</a>

Background on North Korean nuclear and missile development and on efforts to control: <a href="https://www.nti.org/learn/countries/north-korea/">https://www.nti.org/learn/countries/north-korea/</a>.

Jaganath Sankaran and Steve Fetter, "Re-examining Homeland Missile Defense against North Korea," *The Washington Quarterly* 43:3 (September 2020)

# (13) Crisis Management in South Asia (Nov 23) \*\*Rough draft group B due/presentations\*\*

Stephen P. Cohen, "Nuclear Weapons and Conflict in South Asia," *Brookings* (November 23, 1998), at: <a href="https://www.brookings.edu/articles/nuclear-weapons-and-conflict-in-south-asia/">https://www.brookings.edu/articles/nuclear-weapons-and-conflict-in-south-asia/</a> – focus on how identity issues affected India's decision to conduct its first overt nuclear weapons test.

Alexander George, "Findings and Recommendations," pp. 545-566 in George, ed., *Avoiding War: Problems of Crisis Management* (Boulder, CO: Westview Press, 1991).

Ian Hall, "The Requirements of Nuclear Stability in South Asia," *Nonproliferation Review* 21:3-4 (2014)

Jaganath Sankaran, "Destroying Pakistan to Deter India? The Problem with Pakistan's Battlefield Nukes," *Bulletin of the Atomic Scientists* (July 2014)

Harry I. Hannah, "A Hotline between National and Nuclear Command Authorities to Manage Tensions," Stimson Center (August 8, 2018) at: <a href="https://www.stimson.org/2018/hotline-between-national-and-nuclear-command-authorities-manage-tensions/">https://www.stimson.org/2018/hotline-between-national-and-nuclear-command-authorities-manage-tensions/</a>

Moeed W. Yusuf, "The Pulwama Crisis: Flirting with War in a Nuclear Environment," *Arms Control Today* (May 2019)

## (14) Climate Change and Human Security (Nov. 30) \*\* Presentations \*\*

"Findings from Select Federal Reports: The National Security Implications of Climate Change," (May 2015) at:

https://obamawhitehouse.archives.gov/sites/default/files/docs/National\_Security\_Implications of Changing Climate Final 051915.pdf

Francois Gemmene, Jon Barnett, W. Neil Adger, and Geoffrey D. Dalbelko, "Climate and Security: Evidence, Emerging Risks, and a New Agenda," *Climate Change* (2014) 123:1-9

Angela Oels, "From 'Securitization' of Climate Change to 'Climatization' of the Security Field: Comparing Three Theoretical Perspectives," pp. 185-205 in Jurgen Scheffran et al., eds, Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability (Berlin: Springer, 2012).

Zafar Imran, "Understanding Climate-Security Risks: A Mechanism-Based Approach," CISSM policy brief (May 2020) at: <a href="https://cissm.umd.edu/research-impact/publications/understanding-climate-security-risks-mechanism-based-approach">https://cissm.umd.edu/research-impact/publications/understanding-climate-security-risks-mechanism-based-approach</a>.

# (15) Biosecurity and pandemics (Dec. 7) \*\* Presentations \*\*

Christine Parthemore and Andy Weber, "COVID-19 Lessons: Diseases Can be Ideal Weapons," *Los Angeles Times* (Nov. 12, 2020) at:

 $\frac{https://www.latimes.com/opinion/story/2020-11-12/national-security-covid-19-biological-weapon}{}$ 

Filippa Lentzos and Guy Reeves, "Scientists are Working on Vaccines that Can Spread like Diseases: What Could Possibly Go Wrong?" *Bulletin of the Atomic Scientists* (September 18, 2020) at: <a href="https://thebulletin.org/2020/09/scientists-are-working-on-vaccines-that-spread-like-a-disease-what-could-possibly-go-wrong">https://thebulletin.org/2020/09/scientists-are-working-on-vaccines-that-spread-like-a-disease-what-could-possibly-go-wrong</a>

Glenn Cross and Lynn Klotz, "Twenty-first century perspectives on the Biological Weapons Convention: Continued Relevance or Paper Tiger?" *Bulletin of the Atomic Scientists* 76:4 (2020) pp. 185-191.

Nomsa Ndongwe, "Low Hanging Fruit," WCAPS Policy Papers by Women of Color (October 2020)

James Doyle, "How to Reduce both Nuclear and Pandemic Threats after COVID-19," *Bulletin of the Atomic Scientists* (May 19, 2020) at: <a href="https://thebulletin.org/2020/05/how-to-reduce-both-nuclear-and-pandemic-threats-after-covid-19/">https://thebulletin.org/2020/05/how-to-reduce-both-nuclear-and-pandemic-threats-after-covid-19/</a>