

U.S. Military Thought in the Information Age  
(SIS 419-049 & 652-012-2011F)

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Description:

This course examines the evolution of U.S. military thought and its impact on the development of national or grand strategy. Our military strategy and doctrine reflects a continuum of thinking about the nature and conduct of war that can be traced back to the earliest days of conflict.

This course is divided into two parts beginning with the early thinking that undergirds U.S. national strategy. In this early period, the U.S. military was continuously evolving and developing into a force with global reach. With the evolution of military capabilities in 1900, the U.S. emerged as a global power. This standing continued into the Cold War with the U.S. leading the North Atlantic Treaty Organization (NATO) in a war of deterrence, conflict without outright war and proxy clashes against the Warsaw Pact. The Post Cold war period saw no diminishing of U.S. military power, but rather a discovery about the limits of military power. Despite unrivaled military supremacy, some conflicts proved to be beyond the capability to the military to solve.

In the second part of the course -- War in the Information Age -- the Post 9-11 period is examined. The challenges associated with employing the military element of power in a globalized, information rich environment will be considered. The course will also examine the inherent challenges associated with working with Interagency and coalition partners as well as the absolute necessity to do so. Finally, the future of warfare will be considered and students will have the opportunity to examine how the nature and character of conflict are likely to further evolve.

- Lesson #1 Introduction & Early Military Thought
- Lesson #2 U.S. Evolution to a Global Power
- Lesson #3 Cold War -- Superpower Standoff & Proxy Wars
- Lesson #4 Cold War -- Deterrence & Nuclear Weapons
- Lesson #5 Post Cold War -- Grenada, Panama & Desert Storm -- The American Way of War
- Lesson #6 Post Cold War -- Peace Operations -- Somalia, Haiti and Bosnia
- Lesson #7 Post Cold War -- Transformation & Information Age
- Lesson #8 Midterm
- Lesson #9 Post 9-11: Terrorism, Homeland Defense & Support to Civil Authorities
- Lesson #10 Information Age: Interagency Operations (Iraq & Afghanistan)
- Lesson #11 Information Age: Cyber (and Space) Warfare
- Lesson #12 Information Age: The Institution of Warfare
- Lesson #13 Information Age: Limits of Military Power
- Lesson #14 The Future of Conflict
- Lesson #15 Final

## IN CLASS PRESENTATIONS

- Each student will provide a presentation on topic area from the course.
- Students will be expected to research these topics and provide the following information:
  - Overview of Events
  - National Security Interest
  - Discussion of the Issue
  - Lessons Learned
- Topics include:

Topic	Lesson	Students
Invasion of Grenada	5	2
Invasion of Panama	5	2
Desert Shield/Storm	5	2
Somalia	6	2
Haiti	6	2
Bosnia	6	2
Support to Civil Authorities	7	2
Iraq (2003-Present)	10	2
Afghanistan	10	2

## COURSE OBJECTIVES

Students should be able to:

- Describe the evolution of U.S. military thought
- Discuss the relationship between the U.S. evolution of military thought and the development of grand or national strategy
- Understand how the military element of U.S. national strategy is affected by globalization and the Information Age
- Discuss the future of warfare as an element of national power
- Discuss the importance of the application of all the elements of national power in a coordinated manner

## LEARNING OBJECTIVES

Students should:

- Develop knowledge concerning the contribution of the military element of power currently and in the future
- Develop critical thinking with respect to use of the employment of the military, specifically under what conditions the military is appropriate capability to employ

## GRADED REQUIREMENTS

- Midterm: 20%
- Final: 20%
- Paper #1 (10 page double-spaced paper due Lesson #7): 20%
- Paper #2 (10 page double-spaced paper due Lesson #14): 20%
- Presentation: 10%
- Class Participation: 10%

## REFERENCES

- Gerstein, Daniel M. *Securing America's Future: National Strategy in the Information Age*. Praeger Security International, 2005.
- Paret, Peter. *Makers of Modern Strategy from Machiavelli to the Nuclear Age*. Princeton University Press, 1986.
- Various articles (To be provided).

## EMERGENCY PREPAREDNESS

In the event of a declared pandemic (influenza or other communicable disease), American University will implement a plan for meeting the needs of all members of the university community. Should the university be required to close for a period of time, we are committed to ensuring that all aspects of our educational programs will be delivered to our students. These may include altering and extending the duration of the traditional term schedule to complete essential instruction in the traditional format and/or use of distance instructional methods.

Specific strategies will vary from class to class, depending on the format of the course and the timing of the emergency. Faculty will communicate class-specific information to students via AU e-mail and Blackboard, while students must inform their faculty immediately of any absence due to illness. Students are responsible for checking their AU e-mail regularly and keeping themselves informed of emergencies. In the event of a declared pandemic or other emergency, students should refer to the AU Web site ([www.prepared.american.edu](http://www.prepared.american.edu)) and the AU information line at (202) 885-1100 for general university-wide information, as well as contact their faculty and/or respective dean's office for course and school/ college-specific information.

## ACADEMIC INTEGRITY CODE

All students must adhere to the Academic Integrity Code (<http://www.american.edu/provost/registrar/regulations/reg80.cfm>). As the code states, "By enrolling at American University and then each semester when registering for classes, students acknowledge their commitment to the Code. As members of the academic community, students must become familiar with their rights and their responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, examinations of whatever kind, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Students are responsible for learning the conventions of documentation and acknowledgment of sources. American University expects students to complete all examinations, tests, papers, creative projects, and assignments of any kind according to the highest ethical standards, as set forth either explicitly or implicitly in this Code or by the direction of instructors."

**Lesson #1. Introduction & Early Military Thought (Sun Zsu, Clausewitz and Jomini)**

## Lesson Objectives (&amp; Discussion Topics):

- Introduce the course
- What are the foundations for thinking about warfare and conflict in the Information Age?
- How does the discussion of the early strategists assist us in understanding Information Age warfare?
- Is the work of the early military strategists relevant today?

## Readings:

- Gerstein, pp. xi-12, 53-98.
- Paret, pp. 123-215.
- Clausewitz, Carl von General. *On War*, Translated by Colonel J.J. Graham, 1874 was 1st edition of this translation. 1909 was the London reprinting.
- Cornish, Paul. Clausewitz and the Ethics of Armed Force: Five Propositions, *Journal of Military Ethics* (2003) (2(3)): 213-226.
- Echevarria II, Antulio J., Clausewitz' Center of Gravity: It's Not What We Thought. *Naval War College Review*, Winter 2003, Vol. LVI, No. 1
- Etzold, Thomas H. Clausewitzian Lessons for Modern Strategists, *Air University Review*, May-June 1980.
- "Jomini: Mass, Science, and Future," *Warfare* January 20, 2009
- Podruchny, Richard. Sun Tzu and the Overland Campaign of 1864, Published online on 03/30/2007.
- Scientific Optimism: Jomini and the U.S. Army, <http://www-cgsc.army.mil/csi/research/writing/Papers%20c600/Commendebner2.asp>
- *The Art of War by SunTzu*, translated by Lionel Giles

## Additional Resources:

- None

**Lesson #2. Early Military Thought: U.S. Evolution to a Global Power**

## Lesson Objectives (&amp; Discussion Topics):

- Be able to describe the military's role in developing a global focus and reach.
- What were the conditions under which the United States military?
- Did NSC-68 cause the Cold War or was it a reaction to Soviet actions?
- Describe the military's role during the period of 1899 to 1947. What can we learn about foreign policy of the United States from this period?
- What do the experiences of the 1899 to 1947 period portend for the development of the U.S. military?

## Readings:

- Paret, 408-596.
- Bowen, Gordon L., *Foundations of U.S. Policies: NSC-68 (1950)*, Political Science 128, Mary Baldwin College, Staunton VA 24401.
- Fakiolas, Efstathios T., "Kennan's Long Telegram and NSC-68: A Comparative Analysis," *East European Quarterly*, Vol. 31, no. 4, January 1998.
- Stevenson, Charles A. *Underlying Assumptions of the National Security Act of 1947*. Joint Forces Quarterly, Issue 48, 1st Quarter 2008.
- Trager, Frank N. "The National Security Act of 1947: Its Thirtieth Anniversary." *Air University Review*, November-December 1977.

<p>Additional Resources:</p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Lesson #3. Cold War -- Superpower Standoff &amp; Proxy Wars</b></p>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• Describe the roots of the Cold War.</li> <li>• Characterize the nature of the Cold War. What is a purely military standoff between superpowers?</li> <li>• What was the role of the U.S. in causing the Cold War standoff?</li> <li>• Were the "proxy wars" inevitable or were they caused by (or resulting from) the Cold War?</li> <li>• Describe the role of arms control in both reducing and increasing military tensions.</li> <li>• Is arms control a viable part of national (and military) strategy?</li> </ul>
<p>Readings:</p> <ul style="list-style-type: none"> <li>• Paret, pp. 735-861.</li> <li>• Bohlen, Avis. "Arms Control in the Cold War." May 2009, Vol. 14, No. 7, <a href="http://www.fpri.org/footnotes/1407.200905.bohlen.armscontrolcoldwar.html">http://www.fpri.org/footnotes/1407.200905.bohlen.armscontrolcoldwar.html</a></li> <li>• Cold War Timeline, <a href="http://library.thinkquest.org/10826/timeline.htm">http://library.thinkquest.org/10826/timeline.htm</a></li> <li>• History of the Strategic Air Command: SAC Targeting Concepts Historical Study #73A, Office of Information, Strategic Air Command, Unclassified 1999.</li> <li>• Kent, John. "Cold War and the Periphery." London School of Economics, <a href="http://www.history.ac.uk/ihr/Focus/cold/articles/kent.html">http://www.history.ac.uk/ihr/Focus/cold/articles/kent.html</a></li> <li>• LeMay, Curtis. The Operational Side of Air Offense, Remarks to the USAF Scientific Advisory Board, Patrick Air Force Base, 1957.</li> <li>• Record, Jeffrey. "Nuclear Deterrence, Preventive War, and Counterproliferation." Policy Analysis, No. 519 July 8, 2004.</li> <li>• Schulte, Paul. "Is NATO's Nuclear Deterrence Policy a Relic of the Cold War?" Carnegie Endowment, November 17, 2010</li> <li>• Suri, Jeremi. "The World the Superpowers Made." University of Wisconsin, Madison, <a href="http://www.history.ac.uk/ihr/Focus/cold/articles/suri.html">http://www.history.ac.uk/ihr/Focus/cold/articles/suri.html</a>.</li> <li>• Zapotoczny, Walter S. America's Paradoxical Trinity: WWII and Vietnam, Published online: 02/10/2007.</li> </ul>
<p>Additional Resources:</p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Lesson #4. Cold War -- Deterrence &amp; Nuclear Weapons</b></p>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• Describe the role of nuclear weapons in the Cold War?</li> <li>• Do nuclear weapons still have relevance in defense policy today?</li> <li>• Is it possible to eliminate all nuclear weapons?</li> <li>• Are nuclear weapons a stabilizing or destabilizing factor in U.S. foreign affairs and military force posture?</li> <li>• Describe deterrence. Does deterrence only apply to nuclear weapons?</li> </ul>
<p>Readings:</p> <ul style="list-style-type: none"> <li>• Nuclear Posture Review, Office of the Secretary of Defense, 2009.</li> <li>• Bar, Shmuel. "Can Cold War Deterrence Apply to a Nuclear Iran? Jerusalem Center for Public Affairs, <i>Strategic Perspectives</i>, Number 7, 2011.</li> <li>• Hagerty, Devin T., "Nuclear Deterrence in South Asia: the 1990 Indo-Pakistani Crisis," <i>International Security</i>, (v20 n3), Winter 1995.</li> </ul>

<ul style="list-style-type: none"> <li>• Lamkin, Fletcher M., Jr., Colonel, U.S. Army and Lieutenant Colonel Stephen O. Fought, U.S. Air Force, "Teaching about Arms Control."</li> <li>• "Nuclear Deterrence." Project of the Nuclear Age Peace Foundation. NuclearFiles.org.</li> <li>• Payne, Keith B. "How Much is Enough?: A Goal-Driven Approach to Defining Key Principles." National Institute for Public Policy, Graduate Department of Defense and Strategic Studies, Missouri State University.</li> <li>• Payne, Keith B. "Nuclear Deterrence for a New Century," Spring 2010, Number 10.</li> <li>• Woolf, Amy F. <i>U.S. Strategic Nuclear Forces: Background, Developments, and Issues</i>, Congressional Research Service, March 10, 2011.</li> </ul>
<p>Additional Resources:</p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Lesson #5. Post Cold War -- Grenada, Panama &amp; Desert Storm -- The American Way of War</b></p>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• Compare and contrast the Panama invasion and Desert Storm/Shield.</li> <li>• In what sense can these campaigns be considered the "American Way of War"?</li> <li>• Did the United States "win" these conflicts?</li> <li>• Were these wars of necessity or choice? Were U.S. vital national interests at stake?</li> </ul>
<p>Readings:</p> <ul style="list-style-type: none"> <li>• Eytan Gilboa, "The Panama Invasion Revisited: Lessons for the Use of Force in the Post Cold War Era," <i>Political Science Quarterly</i>, (v110 n4), p539</li> <li>• Franklin, Jane. <i>Panama: Background and Buildup to the Invasion of 1989</i>. 2001.</li> </ul>
<p>Additional Resources:</p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Lesson #6. Post Cold War: Peace Operations -- Somalia, Haiti and Bosnia</b></p>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• What are the legitimate uses of peace operations?</li> <li>• Should a superpower become involved in peace operations? If so, under what conditions does involvement make sense?</li> <li>• Were these wars of necessity or choice? Were U.S. vital national interests at stake?</li> </ul>
<p>Readings:</p> <ul style="list-style-type: none"> <li>• Paret, pp. 815-862.</li> <li>• U.S. Army Field Manual 100-23, <i>Peace Operations</i>, 1994.</li> <li>• Avruch, Kevin, James L. Narel, Pascale Combelles Siegel, <i>Information Campaigns for Peace Operations</i>, CCRP, 1999.</li> <li>• Backsmeier, Benjamin C. "The Decision to Intervene: The Price of Peace in the Era of International Terrorism," United States Military Academy, undated.</li> <li>• Benson, Kevin C. M. and Christopher B. Thrash. "Declaring Victory: Planning Exit Strategies for Peace Operations," <i>Parameters</i>, Autumn 1996, pp. 69-80.</li> <li>• "Command Arrangements for Peace Operations," <a href="http://www.au.af.mil/au/awc/awcgate/ndu/peace_alberts/keycncpt.html">http://www.au.af.mil/au/awc/awcgate/ndu/peace_alberts/keycncpt.html</a>.</li> <li>• Hardesty, J. Michael and Jason D. Ellis, <i>Training for Peace Operations</i>, U.S. Institute for Peace, Washington, DC.</li> <li>• Metz, Steven. "Counterinsurgency: Strategy and the Phoenix of American Capability," U.S. Army War College, Carlisle, PA, February 28, 1995</li> <li>• Presidential Decision Directive - 25: Multilateral Peace Operations, Strategic Forum,</li> </ul>

<p>Institute for National Strategic Studies, July 1994.</p> <ul style="list-style-type: none"> <li>• Presidential Decision Directive - 25. The White House (Unclassified), May 3, 1994.</li> <li>• Remarks by President Obama in Address to the Nation on Libya, The White House, March 28, 2011 (National Defense University, Washington, D.C.).</li> <li>• Sewall, Sarah B. "U.S. Policy and Practice Regarding Multilateral Peace Operations," Carr Center for Human Rights Policy Working Paper 01-3.</li> <li>• United Nations, Report on the progress of training in peacekeeping, December 2010.</li> </ul>
<p>Additional Resources:</p> <ul style="list-style-type: none"> <li>• United Nations website "Peacekeeping Operations."</li> </ul>
<p><b>Lesson #7. Post Cold War -- Transformation &amp; Information Age</b></p>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• What is military transformation?</li> <li>• Why did the military decide that fundamental change was required?</li> <li>• Has the military transformation been successful?</li> <li>• Is transformation complete or is it continuing?</li> </ul>
<p>Readings:</p> <ul style="list-style-type: none"> <li>• Gerstein, pp. 99-127.</li> <li>• Cebrowski, Arthur K. "Transformation Trends," January 13, 2003.</li> <li>• Chizek, Judy G. <i>Military Transformation: Intelligence, Surveillance and Reconnaissance</i>, Congressional Research Service, Updated January 17, 2003.</li> <li>• Davis, Paul K. <i>Military Transformation? Which Transformation, and What Lies ahead?</i> RAND Report, undated.</li> <li>• Echevarria, Antulio J. II, <i>Fourth Generation War and Other Myths</i>, U.S. Army Strategic Studies Institute, November 2005</li> <li>• Echevarria, Antulio J. II, <i>Globalization and the Nature of War</i>. U.S. Army Strategic Studies Institute, March 2003</li> <li>• General Accountability Office, "Military Transformation: Army Has a Comprehensive Plan for Managing Its Transformation but Faces Major Challenges." November 2001.</li> <li>• Goldwater-Nichols Act of 1986, U.S. Code Legal Information Institute, Cornell Law School.</li> <li>• Hammes, T.X. "Fourth Generation Warfare Evolves, Fifth Generation Emerges," <i>Military Review</i>, May-June 2007.</li> <li>• Jablonsky, David. "National Power." <i>Parameters</i>, Spring 1997, pp. 34-54.</li> <li>• Locher, James III. "Taking Stock of Goldwater-Nichols." <i>Joint Forces Quarterly</i>, Autumn 1996.</li> <li>• <i>Military Transformation: A Strategic Approach</i>. Office of Force Transformation, Department of Defense.</li> <li>• Remarks by the President in Address to the Nation on Libya, The White House, March 28, 2011 (National Defense University, Washington, D.C.).</li> <li>• <i>US/UK Coalition Combat Operations during Operation Iraqi Freedom</i>, Office of Force Transformation, Department of Defense, March 2005.</li> </ul>
<p>Additional Resources:</p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Lesson #8. Midterm</b></p>

## Lesson #9. Post 9-11: Terrorism, Homeland Defense & Support to Civil Authorities

### Lesson Objectives (& Discussion Topics):

- What is terrorism? Are terrorists rational? If so, can you negotiate with them?
- What are current trends in terrorism?
- What is/should be the military's role in combating terrorism?
- Should there be limits for military support to civil authorities? If so, who draws the line?
- What should the military's role be in disaster relief?
- Should the United States be concerned about the prominent role the military plays in support to civil authorities?

### Readings:

#### Support to Civil Authorities

- Buchalter, Alice R. *Military Support to Civil Authorities: The Role of the Department of Defense in Support of Homeland Defense*. Library of Congress, Commission on the National Guard and Reserves, February 2007.
- Feickert, Andrew and Emma Chanlett-Avery, *Japan 2011 Earthquake: U.S. Department of Defense (DOD) Response*, Congressional Research Service, March 22, 2011.
- "Defense Support to Civil Authorities," *How the Army Runs*, U.S. Department of the Army, Chapter 22, 2009.
- "Defense Support to Civil Authorities," *How the Army Runs*, U.S. Department of the Army, Chapter 23, 2009.
- "The Homeland Security Act of 2002—A Summary." Kilpatrick and Lockhart, *Homeland Security Bulletin*, March 2003.
- *Homeland Quadrennial Security Review Report*, Department of Homeland Security, February 2010.
- White House Analysis of the Homeland Security Act of 2002, undated.
- *Defense Support of Civil Authorities*, US Army Training and Doctrine Command Deputy Chief of Staff for Intelligence, Fort Leavenworth, Kansas, 15 August 2005

#### Terrorism

- Ganor, Boaz. 2001. "Defining Terrorism: Is One Man's Terrorist Another Man's Freedom Fighter?" International Policy Institute for Counter-Terrorism.
- Stern, Jessica. 2003. "The Protean Enemy," *Foreign Affairs* July/Aug 2003
- Rapaport, "The Four Waves of Rebel Terror and September 11." (Kegley p. 36-52)
- Lake, David A. 2002. "Rational Extremism: Understanding Terrorism in the Twenty-first Century." *Dialog-IO* pp. 1-29.
- RAND Report: How Terrorism Ends
- Crenshaw, Martha. 1981. "The Causes of Terrorism." *Comparative Politics* 13 (4), pp. 379-399.
- Merari, Ariel. 1990. "Terrorism as a Strategy of Insurgency," *Terrorism and Political Violence* 5 (4), pp. 213-251.
- Victoroff, Jeff. 2005. "The Mind of the Terrorist: A Review and Critique of Psychological Approaches," *Journal of Conflict Resolution* 49 (1): 3-42.
- Tilly, Charles. 2004. "Terror, Terrorism, Terrorists." *Sociological Theory* 22, no. 1: 5-13.

### Additional Resources:

- *9/11 Commission Report*, <http://www.9-11commission.gov/report/index.htm>
- Hoffman, Bruce. 2006. *Inside Terrorism*. New York. Columbia University Press.
- Stern, Jessica. 2003. *Terror in the Mind of God: The Global Rise of Religious Violence*, Berkeley: University of California Press.
- U.S. Army Training & Doctrine Command (TRADOC), *A Military Guide to Terrorism in the 21<sup>st</sup> Century*, August 2007

**Lesson #10. Information Age: Interagency Operations (Iraq & Afghanistan)**

Lesson Objectives (& Discussion Topics):

- Were Iraq and Afghanistan wars of necessity or choice?
- What was the interagency role of operations in Iraq and Afghanistan?
- Was there a theory of warfare/conflict that guided efforts in these operations?
- What lessons have been learned as a result of U.S. commitments in Iraq & Afghanistan?
- What constitutes winning in complex Interagency operations? Did we win in Iraq? In Afghanistan?
- What are the major lessons learned as a result of these Interagency operations?

Readings:

- Gerstein, pp. 131-186.
- Arreguín-Toft, Ivan. Commentary on Asymmetric Warfare.
- Biddle, Stephen. *Afghanistan and the Future of Warfare: Implications for Army and defense Policy*. U.S. Army Strategic Studies Institute, November 2002
- Exum, Andrew M., *Afghanistan 2011: Three Scenarios*, Center for a New American Strategy, October 2009.
- *Forging a New Shield*, Project on National Security Reform, November 2008.
- Freier, Nathan. "Small Wars 2.0: A Working Paper on Land Force Planning After Iraq and Afghanistan." U.S. Army Peacekeeping Institute. February 9, 2011.
- Hammes, T.X., "Insurgency: Modern Warfare Evolves into a Fourth Generation," Strategic Forum, January 2005
- Levi, Michael A. *Limiting Iranian Nuclear Activities: Options and Consequences*, Council on Foreign Relations, February 2011.
- Mansager, Tucker B. "Interagency Lessons Learned in Afghanistan," Joint Forces Quarterly, 1st Quarter 2006.
- Metz, Steven. *Counterinsurgency: Strategy and the Phoenix of American Capability*, U.S. Army Strategic Studies Institute, February 28, 1995.
- Metz, Steven. *Rethinking Insurgency*, U.S. Army Strategic Studies Institute, June 2007.
- Ramsey, Robert D. III. *Advice for Advisors: Suggestions and Observations from Lawrence to the Present*, Combat Studies Institute Press, Global War on Terrorism Occasional Paper 19, Fort Leavenworth, Kansas
- Skelton, Ike. "America's Frontier War: Lessons for Asymmetric Warfare," *Military Review*, September-October 2011.
- *US/UK Coalition Combat Operations during Operation Iraqi Freedom*, Office of Force Transformation, Department of Defense, March 2005.
- Transforming warfare (Compilation of thoughts).

Additional Resources:

- None

**Lesson #11. Information Age: Cyber (and Space) Warfare**

Lesson Objectives (& Discussion Topics):

- Are there limits to the role the military should play in the cyber warfare?
- Why is there debate about the military identifying cyber as a domain? What does this portend for the future of this mission area?
- Should the military have a role in protecting the U.S. from cyber attack? What is the role of the Department of Homeland Security (DHS) in protecting against cyber attack?
- What is the importance of space to our national security?

- Should the weaponization of space be allowed?

Readings:

- Bracken, Paul. "Systems Integration and the New American Way of War." Joint Forces Quarterly, Issue 35.
- Butler, Rudolph "Reb", Dick Deckro and Jeff Weir. "Using Decision Analysis to Increase Commanders' Confidence for Employment of Computer Network Operations." Joint Information Operations Center, Fall 2005.
- Darley, William M. "Clausewitz's Theory of War and Information Operations." Joint Forces Quarterly, 1st Quarter 2006.
- Dodson, John R., Chief Warrant Officer 3 USA (Retired). "Man-hunting, Nexus Topography, Dark Networks and Small Worlds." Iosphere, Winter 2006.
- "Computer Network Security & Privacy Protection." Department of Homeland Security. February 19, 2010
- Fraser, Nicholas A., Captain, USAF , Richard A. Raines, Major, USAF (Retired) and Rusty O. Baldwin, Major, USAF (Retired). "Tor: An Anonymous Routing Network for Covert On-line Operations." Center for Information Security Education and Research, Air Force Institute of Technology, Wright Patterson AFB, Iosphere, Fall 2005.
- Heicker, Dr. Roland. "Thoughts on the Application of Military Theory to Information Operations and Network Centric Warfare." Iosphere, Fall 2005.
- Jones, Synthia, Bernard Flowers, Karlton Johnson. "Unity of Effort in Joint Information Operations." Joint Forces Quarterly, Winter 2002-2003.
- Maiers, Mark W. and Timothy Rahn. "Millennium Challenge and Information Operations." Joint Forces Quarterly.
- Matrosov, Aleksandr, Eugene Rodionov, David Harley, and Juraj Malcho. "Stuxnet Under the Microscope: Revision 1.31." www.eset.com.
- Miller, Michael G. Lt Col, USAF (Retired). "Attaining and Maintaining National Security Advantage: Information Operations and Secrecy." Iosphere, Spring 2005.
- *National Strategy for Information Sharing: Successes and Challenges In Improving Terrorism-Related Information Sharing*, The White House, October 2007.
- *National Security Space Strategy*, Department of Defense and Director of National Intelligence, October 2010.
- Romanych, Marc J., MAJ, USA (Retired). "A Theory-Based View of IO." Iosphere, Spring 2005.
- Segal, Adam. "Policy Innovation Memorandum No. 2, Re: Cyberspace Governance: The Next Step." Council on Foreign Relations, March 17, 2011.
- Sterling, Bruce. "Peace Is War: Get ready for the new frontier of missile defense, where peacekeeping space lasers battle a storm of rogue nukes." Wired, undated.

Additional Resources:

- None

<b>Lesson #12. Information Age: The Institution of Warfare</b>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• Describe what is meant by the military-industrial complex.</li> <li>• How does the Department of Defense prepare to support national interest and strategy?</li> <li>• In what ways can the Department of Defense be considered to be the institution of warfare?</li> <li>• Should the American people be concerned about the institution of warfare that has emerged?</li> </ul>
<p>Readings:</p> <ul style="list-style-type: none"> <li>• Gerstein, pp. 131-186.</li> <li>• Foster, Gregory. "Research, Writing, and the Mind of the Strategist." <i>Joint Forces Quarterly</i>, Spring 1996.</li> <li>• <i>National Security Strategy</i>, The White House, May 2010.</li> <li>• United States Air Force Posture Statement, 2011.</li> <li>• United States Army Posture Statement, 2011.</li> <li>• United States Navy Posture Statement, 2011.</li> <li>• United States Marines Corps Posture Statement, 2011.</li> </ul>
<p>Additional Resources:</p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Lesson #13. Information Age: Limits of Military Power &amp; Asymmetric Warfare</b>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• Are there limits to American power?</li> <li>• Should a superpower engage in wars of choice?</li> <li>• What is the difference between asymmetric warfare and terrorism? Is there a distinction?</li> <li>• Is there such a concept as "acceptable losses"?</li> </ul>
<p>Readings:</p> <ul style="list-style-type: none"> <li>• Ancker, Clinton J. III and Michael D. Burke. "Doctrine for Asymmetric Warfare." <i>Military Review</i>, July-August 2003.</li> <li>• Arreguín-Toft, Ivan. <i>Commentary on Asymmetric Warfare</i>.</li> <li>• Metz, Steven and Raymond Millen. <i>Insurgency and Counterinsurgency in the 21st Century: Reconceptualizing Threat and Response</i>. U.S. Army Strategy Studies Institute, November 2004.</li> <li>• Remarks by President Obama in Address to the Nation on Libya, The White House, March 28, 2011 (National Defense University, Washington, D.C.).</li> <li>• Skelton, Ike. "America's Frontier War: Lessons for Asymmetric Warfare," <i>Military Review</i>, September-October 2011.</li> </ul>
<p><b>Additional Resources:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Lesson #14. The Future of Conflict</b>
<p>Lesson Objectives (&amp; Discussion Topics):</p> <ul style="list-style-type: none"> <li>• Describe the future of conflict.</li> <li>• Have large land and naval conflicts become obsolete?</li> <li>• Is asymmetric warfare the new way of waging war?</li> <li>• What is the role of technology in the future of warfare?</li> <li>• Will warfare remain a human experience or become dominated by technology?</li> </ul>

- Since the end of the Cold War, the United States has been the world's only superpower -- Given advances in technology, the economics of conflict and American interests, is this trend likely to continue?
- What is the appropriate role of the U.S. Armed Forces in the 21st Century?

Readings:

- Gerstein, pp. 131-186.
- Paret, pp. 863-871.
- Barnett, Thomas P.M. "The Pentagon's New Map." *Esquire*, March 2003, pp. 174-79 & 227.
- Barnett, Thomas P. M. and Henry H. Gaffney Jr. "The Top 100 Rules of the New American Way of War, unpublished and undated.
- Dunlap, Charles J. Jr. "A Virtuous Warrior in a Savage World." Unpublished and undated.
- Echevarria, Antulio J. II, *Toward and American Way of War*. U.S. Army Strategic Studies Institute, March 2004.
- Evans, Michael. "From Kadesh to Kandahar: Military Theory and the Future of War." *Naval War College Review*, Summer 2003, Vol. LVI, No. 3.
- Hammes, T.X. "Fourth Generation Warfare Evolves, Fifth Generation Emerges," *Military Review*, May-June 2007.
- Knopf, Jeffrey W. "The Fourth Wave in Deterrence Research." *Contemporary Security Policy*, Vol.31, No.1 (April 2010), pp.1–33.
- Mccuen, John J., Colonel USA, Retired. "Hybrid Wars." *Military Review*, March-April 2008.
- *Nuclear Posture Review*, Office of the Secretary of Defense, 2009.
- *Vision and Strategy 2025*. United States Marines Corps
- Woolf, Amy F. *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*, Congressional Research Service, March 10, 2011.

Additional Resources:

- None

**Lesson #15. Final**