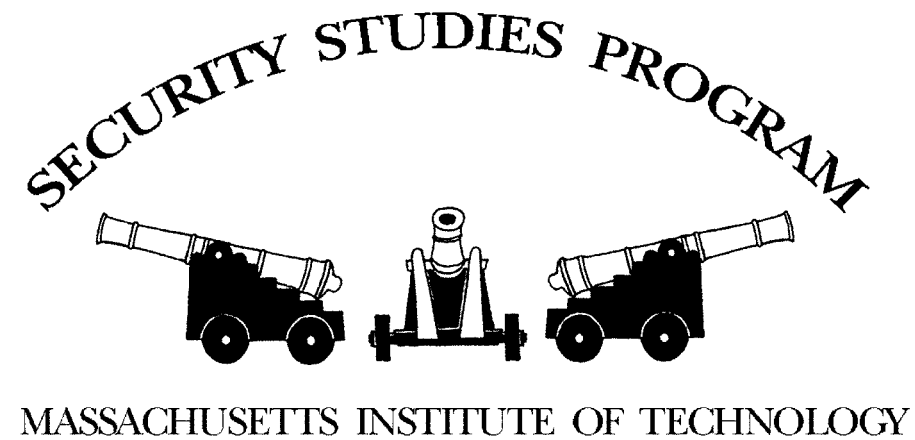


SECURITY STUDIES PROGRAM



The Security Studies Program (SSP) is a graduate level research and educational program based at the MIT Center for International Studies. It traces its origins to two initiatives.

One is the teaching on international security topics, and most particularly on defense budgeting, that Professor William Kaufmann began in the 1960s at the MIT Political Science Department. The other is the MIT-wide seminars on nuclear weapons and arms control policy that Professors Jack Ruina and George Rathjens began in the mid-1970s.

Initially called the MIT Defense and Arms Control Studies Program, SSP's teaching ties are primarily, but not exclusively, with the MIT Political Science Department. The SSP faculty, however, includes natural scientists and engineers as well as social scientists. Distinguishing the program is its ability to integrate technical and political analyses in studies of international security issues.

Several of the SSP faculty have had extensive government experience. They and the other Program faculty advise or comment frequently on current policy problems. But the Program's prime task is educating those young men and women who will be the next generation of scholars and practitioners in international security policy making. The Program's research and public service activities necessarily complement that effort.

The Center for International Studies is a major unit of the School of Humanities, Arts, and Social Sciences at MIT and seeks to encourage the analysis of issues of continuing public concern. Key components of the Center in addition to SSP are Seminar XXI, which offers training in the analysis of international issues for senior military officers, government officials, and industry executives; and the MIT Japan Program, which conducts research and educational activities to further knowledge about Japanese technology, economic activities, and politics.

Report Documentation Page

*Form Approved
OMB No. 0704-0188*

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 2004	2. REPORT TYPE N/A	3. DATES COVERED -	
4. TITLE AND SUBTITLE Security Studies Program		5a. CONTRACT NUMBER	
		5b. GRANT NUMBER	
		5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)		5d. PROJECT NUMBER	
		5e. TASK NUMBER	
		5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Security Studies Program Massachusetts Insitute of Technology 292 Main Street (E38-600) Cambridge, MA 02139		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)	
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited			
13. SUPPLEMENTARY NOTES The original document contains color images.			
14. ABSTRACT			
15. SUBJECT TERMS			
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT SAR
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	
19a. NAME OF RESPONSIBLE PERSON			

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DIRECTOR'S STATEMENT

OVERVIEW

The rift between the United States and Europe will grow wider. It is unrealistic to believe that the Cold War's Atlantic Alliance can be sustained when its purpose and structure have been so dramatically altered by events. The Alliance was built to contend with an expansionary Soviet Union and on the fiction that America's European allies would reclaim their pre-World War II standing as great powers. The collapse of the Soviet Union in the late 1980s was preceded decades earlier by the necessary recognition that Britain and France, their empires gone, had lost any hope of influencing affairs much beyond Europe. The Alliance was run by an obviously dominant United States and gave opportunity for the gradual building of trust between West Germany and its neighbors, the foundation for the European Union.

From a European perspective at least, the decade that followed the defeat of Communism was hardly wasted as it allowed many of the former satellites of the Soviet Union to reclaim their European heritage by integrating their economies with the European Union, a process that also required the development of democratic institutions and habits in these nations. The American-managed Alliance also gave reassurance that Russia would stay tame despite difficult economic and political times, that Yugoslavia's disintegration could be contained as only a moderate humanitarian disaster, and that a costly German reunification effort would not upset much the prosperity and enlargement plans of the European Union. Europeans benefited from the bureaucratic interests of the American military and the Wilsonian inclinations of American politicians from both parties

that gave them the nearly free protection of two mechanized divisions and legions of supporting forces well beyond the time an informed American electorate would have called them home.

The surprise attack of September 11, 2001 precipitated a war that has thoroughly split the Alliance. Despite the rhetoric of the day, it was an attack on the United States, not Western Europe or Western civilization. The United States government, if it wanted to protect its vital interests, including assuring the safety of American citizens, absolutely had to respond militarily to the attack, but other governments had a choice to make about the extent to which they would support the United States in its new war. American political leaders would have been driven from office if they hadn't embarked on a global and highly lethal counteroffensive against "the terrorists." They were given broad discretion in defining the enemy. Except at American universities still living in the deep dream of the 1960s, there was essentially no opposition to attacking al Qaeda and the Taliban in Afghanistan. And current regrets notwithstanding, the attack on Saddam Hussein's regime in Iraq received an overwhelming congressional and popular endorsement. But only the British have joined our war fully. Only they have strained their military and called up significant numbers of reserves for the fight. Most others fear the retaliatory and domestic political consequences of participation beyond arresting local al Qaeda cells and sending a symbolic battalion to Afghanistan or the token warship to the Indian Ocean.



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The Iraq venture has its critics.

Appeasement is an option for Europeans. Several European nations have significant Muslim minorities and all are relatively close to the large Muslim populations of the Middle East and Northern Africa. Collectively European nations are embarked on an uncertain path to create a political union, potentially a united states of Europe. They have no need to stir up domestic divisions or to invite attacks by taking an aggressive stand. But they do have a need to differentiate Europe from the United States of America, long their military protector and the Alliance's leader. Pacifistic policies atone for their incredibly violent past and contrast effectively with American inclinations. The danger posed by an inflamed Islam may pass or be deflected elsewhere, they can hope. The cost of coping with this danger does not have to be borne by a Europe worried about meeting promised social welfare benefits for a rapidly aging population.

Americans cannot avoid the war with militant Islam. Having invaded Iraq we own for the foreseeable future the problem of Iraq's political and economic stability no matter who governs there or here. And al Qaeda has not forgotten us, preoccupied though we may be by Iraq. Stretched thin, the U.S. Army and Marine Corps carry the burden. Even if European governments wanted them to contribute, European militaries have essentially nothing to offer to their Atlantic Alliance leader. Years of free-riding budget cuts have drained their combat formations. And years of happy talk about the wonders of peacekeeping, the need for legal strictures, and the value of non-violent alternatives have softened their will for participating in tough environments. There is neither the desire nor the means in Europe to help the U.S.

The official continuance of the Alliance confuses politicians and enrages the public.

American political leaders expect, at the least European government's expressions of loyalty and understanding in international forums, if not clear endorsements for every American use of military force. The American public expects that the risks being taken by American troops should be shared by the nations that America so often "saved" in the past. The public believes that the Europeans have banked debts with the U.S. while international relations allows for no such accounting. European political leaders think that as allies they have a say in American foreign policy decisions even if they are unwilling to provide more than token military forces to any common action that were to merit their consent. The European public fears that American military adventures, no matter the cause or how far away, will somehow disrupt the good life cultivated in the ashes of the Second World War and saved from the marauders from the East during the Cold War. Thus, the disagreement over the Iraq invasion has produced great bitterness on both sides of the Atlantic.

The old way Europeans communicated.



IWM Photograph

It is better to scrap the Alliance than to try to save it. Until Europeans feel threatened, they will under-invest in defense and over-complain about Americans. As long as Americans harbor illusions about the closeness of interests shared with Europeans they will be angered by the indifference, even contempt, shown by Europeans toward American security concerns and military sacrifice. Especially regarding al Qaeda, genuine cooperation will occur no matter the state of the alliance. Few nations anywhere will want to tempt American preemption in order to harbor terrorist cells. There are also always potential joint projects to build this ship or that aircraft. But without the expectation that one side is obligated to the other for a catalog of unspecified commitments there will be much less disappointment.

A prosperous, independent Europe does not need the protection of American forces. It is time to rethink where we base the American military anyway. Scattered pockets of forces,

with their dependants nearby mixed in among the locals, probably invites trouble. An America that is distant will likely be better loved and better appreciated than one that is always present. Technological advances in the last half century have extended the reach of American power well beyond that of the first years of the Cold War, when the basic disposition of U.S. forces was decided upon, so being there is less important than it once was. And when Europeans have to pay fully for their

security they may value it more and in the process become more serious partners than they have been recently for Americans. In the meantime, NATO can drift into being a network of Rod and Gun Clubs for rural Europeans.



Among us have been

those who are trying to restructure the American military so it can cope with the evolving security environment. Cindy Williams has led a major project on the rapidly expanding costs of America's all volunteer military, whose costs when combined with civilian workforce and contract personnel, now equal half of the not insignificant U.S. defense budget. Personnel entitlements of one kind or another greatly reconstruct the flexibility of defense management. Cindy assembled a team of experts that explored possible new policies that would increase the ability of the military to attract and retain qualified service members while holding down costs. The product of this effort is an edited volume titled *Filling in the Ranks* that was just published by the MIT Press.

In projects intended to promote particular doctrinal innovations Owen Cote has worked with several service platform communities in adjusting to new security challenges. In the first of these he assisted the submarine force to find

productive use for ballistic missile submarines being deactivated due to reduced nuclear deterrent requirements. Four Trident submarines are now being converted to carry a large load of conventional Tomahawk missiles for precision strike and facilities to support special operation forces for covert insertion and extraction. A second Navy oriented project will help naval aviation explore new opportunities stemming from advances in sensor, data link, and information processing technologies. Finally, in collaboration with the Army's Training and Doctrine Development Command, Owen is examining means for rapidly deploying ground forces great distances into austere environments.

The ability of the Army to contemplate such operations depends significantly on the ability of U.S. air and naval forces to control what Barry Posen has called the global commons, the oceans and air space above 10,000 feet, in an insightful *International Security* piece he wrote that explained the range and limits

French forces assemble but not to go to Iraq.

of U.S. power. Barry has also examined the attempts by Europeans to organize independent military power in the face of these capabilities. For instance, the Europeans are creating a Rapid Reaction Force and have a substantial military space effort. The gap is large, but not insurmountable if there is the political will to close it, he believes.

Less focused (though much cuter) than my colleagues, I have been looking at factors that both enhance and hinder the effective exercise of U.S. military power. In the enhancing category I have been trying to understand the sources of America's technological prowess. Clearly, a large part of it is that we spend about six times more than what the rest of the world's militaries spend on defense R&D. But also it is the network of military laboratories, defense contractors, and dedicated non-profit organizations that has been built up in the U.S. since the Second World War and that was not dismantled to any significant degree after the end of the Cold War. There are, though, trends that may indicate problems ahead. One is the obsession with system thinking that produces calls for the creation of ever more complex systems, some certainly beyond the integration capacity of the organizations assigned to develop them. Another is the bipartisan desire to privatize ever more of government including such vital functions as the definition of military requirements and the support of combat operations. Also in the hinder category are the increasing attempts to constrain the U.S. by demanding that it must ever more reduce collateral damage in its use of force because it has the potential to do so due to its admitted technological edge. No herbicides,

no landmines, no misidentified targets, and soon no cluster weapons for U.S. forces. As essentially the only Western military that fights, the U.S. is subject to political pressures and the adherence to international standards real or imagined that its opponents easily avoid.

Our Technology Group, supplemented by other affiliates, has developed an expertise in counter terror policies. Theodore Postol has examined measures to limit the threat posed by the hijacking of aircraft. Geoffrey Forden has evaluated the methodologies used to prioritize terror risks. Sanford Weiner, Jeanne Guillemin, and Gregory Koblentz, a recent graduate, have studied the biological weapons threat. Their writings, courses, and public commentary

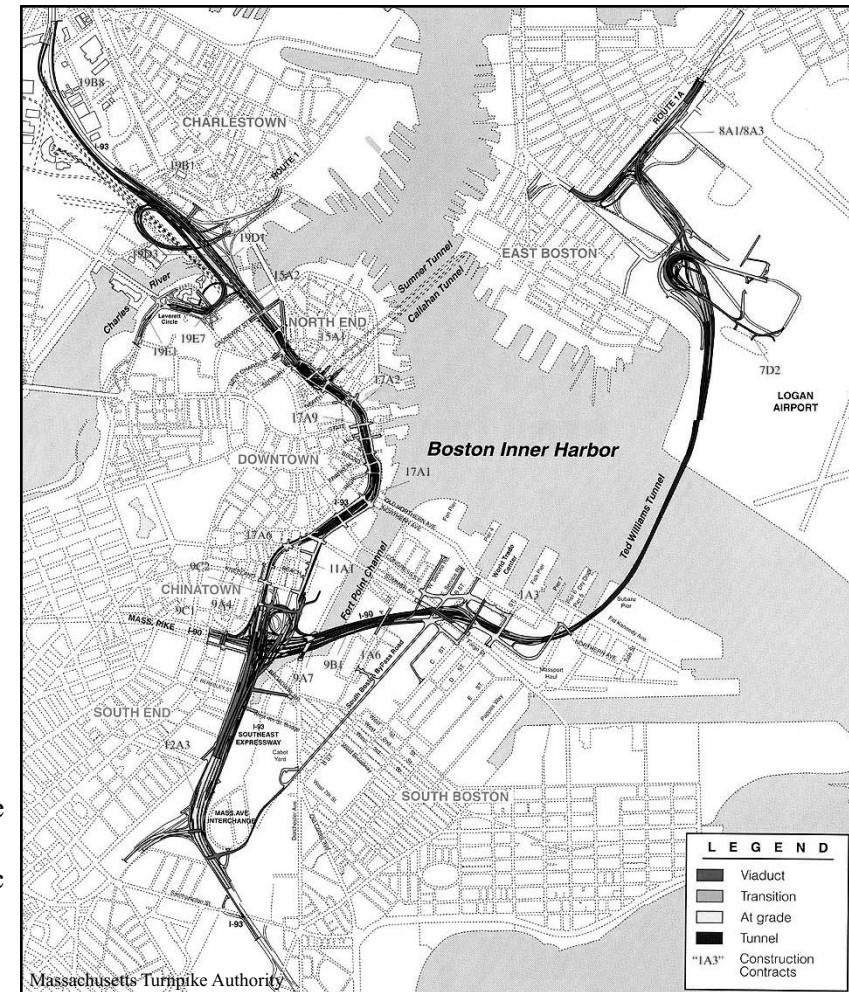


Our Chem/Bio experts confer.

on this issue gain wide circulation. The message is generally a calming one, convincing to many though not to Stephen Van Evera, our expert on terrorist groups and motives. He sees the threat, biological and otherwise, as untamed and uncontained.

Security on the Homefront does indeed arouse concern. It seems that someone may have tampered with our water supply. The baby boom within the Program, supposedly over, has rekindled. We also cosponsored a national conference on the decline in university faculty opportunities for diplomatic and military history that concluded the fields are in fact thriving and that only fools or political scientists (if that is not redundant) would think it was not the case. And several of our most long term graduate students have completed their degrees. We can not imagine what the Program will be like without them.

Just several years late and way over budget, the Massachusetts Turnpike Authority has finally managed to finish the Big Dig — well nearly. Most of the main sections of the \$15 Billion project are open to traffic though not all of the access ramps are completed and some of the elevated highway it is meant to replace has yet to be torn down. Strangely, instead of showing off this wonder of public spending during the Democrat Party Convention big chunks of



Less complicated than it looks.

it and many other roads in and near the center of Boston will be closed down supposedly for security reasons. The convention is being held at the FleetCenter (the privately built replacement for the old Boston Garden and thanks to corporate mergers soon no doubt to be called the Bank of America Center) in the center of Boston. Subway and commuter rail traffic flowing near the FleetCenter will also be disrupted. We all have been told by city officials to take vacation days during the convention or work from home. Apparently, they don't care which option we choose as long as we stay out of Boston.

The convention could have been held with much less disruption at the recently completed (hold on tight) Convention Center in South Boston. Use of this \$500 million government financed facility would not have required closing of the center of the city and its key transportation links. It would have also afforded an excellent view of the nearby harbor cleaned up for multiple billions and the \$500 million dollar Federal Courthouse, a concave glass-fronted, mahogany-paneled building named after House Speaker Tip O'Neill that was foisted upon the federal taxpayer by now Supreme Court Justice Stephen Breyer. Of course, as some speculate, the convention center had to be rejected because it is not within walking distance of Mayor Tom Menino's office, the mayor being the manager of the Boston bid for the convention, and the Beacon Hill mansions of Senator John Kerry, the nominee, and Senator Ted Kennedy as the FleetCenter is. But don't they travel in SUV convoys for even their short trips anyway? Perhaps the local Democrats didn't want to convene in South Boston, the home of the not forgotten busing controversy and the missing Whitey Bulger, a wanted mass murderer and police corrupter supposedly protected for years by his politician brother, Billy, the former all-powerful President of the state senate and later head of the state university system. Most likely though they just didn't have faith that a public works project like the Convention Center could be completed in time, as its schedule called for, to actually host visiting party members. Welcome to the deepest of the deep blue states.

As always we are grateful for the support of our sponsors: the Carnegie Corporation of New York, the John D. and Catherine T. MacArthur Foundation, the Smith Richardson Foundation, the Proteus Fund, Lincoln Laboratory, Draper Laboratory, the Naval Sea Systems Command, and C.D. Tavares.

Harry M. Sapodsky



The USS Preble joins the fight.

FACULTY

HARVEY M. SAPOLSKY is Professor of Public Policy and Organization in the Department of Political Science and Director of the MIT Security Studies Program. Dr. Sapolsky completed a B.A. at Boston University and earned an M.P.A. and Ph.D. at Harvard University. He has worked in a number of public policy areas, notably health, science and defense and specializes in effects of institutional structures and bureaucratic politics on policy outcomes. In the defense field he has served as a consultant to the Commission on Government Procurement, the Office of the Secretary of Defense, the Naval War College, the Office of Naval Research, the RAND Corporation, Draper Laboratory, John Hopkins' Applied Physics Laboratory and Lockheed Martin, and has been a visiting professor at the University of Michigan and the U.S. Military Academy. He is currently focusing his research on three topics: interservice and civil/military relations; the impact of casualties on U.S. use of force; and the future structure of defense industries. Professor Sapolsky's most recent defense-related book is titled *Science and the Navy*, and is a study of military support of academic research.

OWEN R. COTÉ, JR. joined the MIT Security Studies Program in 1997 as Associate Director. Prior to that he was Assistant Director of the International Security Program at Harvard's Center for Science and International Affairs, where he remains co-editor of the Center's journal, *International Security*. He received his Ph.D. from MIT, where he specialized in U.S. defense policy and international security affairs. His dissertation, which he is now revising for publication, analyzed the sources of innovative military doctrine, using cases that compared U.S. Navy responses to different Cold War nuclear vulnerability crises. He is also the author of *The Third Battle: Innovation in the U.S. Navy's Silent Cold War Struggle with Soviet Submarines*, a book analyzing the sources of the U.S. Navy's success in its Cold War antisubmarine warfare effort, and a co-author of *Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material*. He has also written on the future of naval doctrine, nuclear force structure issues, and the threat of WMD terrorism. After graduating from Harvard College and before returning to graduate school, he worked at the Hudson Institute and the Center for Naval Analyses.

GEOFFREY FORDEN joined the Security Studies Program in June 2000 as Senior Research Associate. Dr. Forden spent a year on leave from MIT serving as the first Chief of Multidiscipline Analysis Section for UNMOVIC, the United Nations Monitoring, Verification, and Inspection Commission—the agency responsible for verifying and monitoring the dismantlement of Iraq's weapons of mass destruction. Previously, he was a strategic weapons analyst in the National Security Division of the Congressional Budget Office (CBO). Before joining CBO in August 1997, he spent a year as a Science Fellow at Stanford's Center for International Security and Arms Control. During the year at Stanford he performed the first unclassified, independent, technical analysis of the Airborne Laser. Geoff is a physicist by training with degrees from Case Western Reserve University and Indiana University. After getting his Ph.D. in physics, he spent three years in Germany working for England's Rutherford Laboratory. Returning to the U.S., he first spent three years



U.S. Naval Historical Center Photograph

The Director recalls the old days.

working at Fermi National Laboratory and then seven years as an Assistant Professor of Physics at the University of Arizona. His current research includes the analysis of Russian and Chinese space systems as well as trying to understand how proliferators acquire the know-how and industrial infrastructure to produce weapons of mass destruction.

GEORGE N. LEWIS is a Principal Research Scientist and Associate Director of the MIT Security Studies Program. Dr. Lewis spent five years as a Research Associate in Cornell University's Department of Applied Physics after receiving his Ph.D. in experimental solid state physics from Cornell's Physics Department in 1983. Prior to coming to MIT in 1989 he was a fellow in the Peace Studies Program at Cornell and at the Center for International Security and Arms Control at Stanford. His research has included studies of arms control and verification for sea-launched cruise missiles and other non-strategic nuclear weapons, air surveillance and early warning systems, the effectiveness of ballistic missiles and of defenses against such missiles and the performance of Patriot in the 1991 Gulf War. Dr. Lewis is now conducting research on a number of issues relevant to ballistic missile defense and security issues involving outer space.

ALLISON MACFARLANE is currently a Senior Research Associate in the Technology Group of MIT's Security Studies Program. She was most recently Associate Professor of International Affairs and Earth & Atmospheric Science at Georgia Tech in Atlanta, GA. She received her PhD in geology from the Massachusetts Institute of Technology in 1992. She has held the position of professor of geology and women's studies at George Mason University where she taught a wide variety of geology and environmental courses. She has also held fellowships at the Bunting Institute at Radcliffe College, the Center for International Security and Arms Control at Stanford University, and the Belfer Center for Science and International Affairs at Harvard University. From 1998-2000 she was a Social Science Research Council-MacArthur Foundation fellow in International Peace and Security. From 1999-2001 she served on a National Academy of Sciences panel on the spent fuel standard and excess weapons plutonium disposition. Her research focuses on international security and environmental policy issues associated with nuclear weapons and nuclear energy. Currently, she is at work on a book on the unresolved technical issues for nuclear waste disposal at Yucca Mountain, Nevada.

BARRY R. POSEN is Ford International Professor of Political Science at MIT and serves on the Executive Committee of Seminar XXI, an educational program for senior military officers, government officials and business executives in the national security policy community. He has written two books, *Inadvertent Escalation: Conventional War and Nuclear Risks* and *The Sources of Military Doctrine*, which won two awards: The American Political Science Association's Woodrow Wilson Foundation Book Award, and Ohio State University's Edward J. Furniss Jr. Book Award. He is also the author of numerous scholarly articles, including his most recent "Command of the Commons: The Military Foundation of U.S. Hegemony," *International Security*, (Summer, 2003.) He has been a Council on Foreign Relations International Affairs Fellow; Rockefeller Foundation International Affairs Fellow; Guest Scholar at the Center for Strategic and International Studies; Woodrow Wilson Center Fellow, Smithsonian Institution; and most recently, Transatlantic Fellow of the German Marshall Fund of the United States. Dr. Posen's current research interests include U.S. national security policy, the security policy of the European Union, the organization and employment of military force, great power intervention into civil conflicts, and innovation in the U.S. Army, 1970-1980.

THEODORE A. POSTOL is Professor of Science, Technology and National Security Policy in the Program in Science, Technology and Society at MIT. He did his undergraduate work in physics and his graduate work in nuclear engineering at MIT. Since receiving his Ph.D., Dr. Postol has worked at the Argonne National Laboratory, the Congressional Office of Technology Assessment, and has been a scientific adviser to the Chief of Naval Operations. Dr. Postol helped to build a program at Stanford University to train mid-career scientists to study developments in weapons technology of relevance to defense and arms control policy. In 1990 Dr. Postol was awarded the Leo Szilard Prize from the American Physical Society. In 1995 he received the Hilliard Roderick Prize from the American Association for the Advancement of Science and in 2001 he received the Norbert Wiener Award from Computer Professionals for Social Responsibility for uncovering numerous and important false claims about missile defenses.

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STEPHEN VAN EVERA is Professor in the MIT Political Science Department. He earned his B.A. in government from Harvard and his M.A. and Ph.D. in political science from the University of California at Berkeley. Prof. Van Evera works in several areas of international relations: the causes and prevention of war, U.S. foreign policy, U.S. security policy, U.S. intervention in the Third World, international relations of the Middle East, and international relations theory. He has published books on the causes of war and on social science methodology, and articles on American foreign policy, American defense policy, nationalism and the causes of war, and the origins of World War I. From 1984-1987 he was managing editor of the journal *International Security*.

CINDY WILLIAMS is a Principal Research Scientist of the MIT Security Studies Program. Her work at MIT includes an examination of national security choices facing the U.S., a study of options for reform of military personnel policies and an examination of the transition to all-volunteer forces in the militaries of several European countries. Formerly she was an Assistant Director of the Congressional Budget Office, where she led the National Security Division in studies of budgetary and policy choices related to defense and international security. Dr. Williams has served as a director and in other capacities at the MITRE Corporation in Bedford, Massachusetts; as a member of the Senior Executive Service in the Office of the Secretary of Defense at the Pentagon; and as a mathematician at RAND in Santa Monica, California. Her areas of

specialization include the national security budget, military personnel policy, command and control of military forces, and conventional air and ground forces. Dr. Williams holds a Ph.D. in mathematics from the University of California, Irvine. She has published in the areas of command and control and the defense budget, and she is the editor of two books: *Holding the Line: U.S. Defense Alternatives for the Early 21st Century* (MIT Press 2001) and *Filling the Ranks: Transforming the U.S. Military Personnel System* (MIT Press, 2004). She is an elected fellow of the National Academy of Public Administration and a member of the Naval Studies Board, the Council on Foreign Relations, and the International Institute of Strategic Studies. She serves on the advisory board of Women in International Security and on the editorial board of *International Security*.



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Our faculty does more than walk on water.

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SEYOM BROWN is Lawrence A. Wien Professor of International Cooperation, Department of Politics, Brandeis University, and Adjunct Professor of International Politics, Fletcher School of Law and Diplomacy. His book, *The Illusion of Control: Force and Foreign Policy in the 21st Century*, was recently published by The Brookings Institution.

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MICHAEL DORAN is an Assistant Professor in the Department of Near Eastern Studies at Princeton University, and an Adjunct Senior Fellow at the Council on Foreign Relations in New York. He teaches courses on political Islam, Middle Eastern nationalisms, U.S.-Middle East relations, and the Arab-Israeli conflict. From 1997 to 2000, Dr. Doran was an Assistant Professor of History at the University of Central Florida. He is the author of a study of the first Arab-Israeli

war, entitled *Pan-Arabism before Nasser: Egyptian Power Politics and the Palestine Question* (Oxford University Press, 1999), and is currently working on a book entitled *The Trump Card: Israel in the Arab Civil War*. After he published an influential article on Osama bin Laden in the January/February 2002 issue of *Foreign Affairs*, both government and business have frequently invited him to speak on Middle Eastern affairs.

JAMES E. GOODBY is Distinguished Service Professor, Carnegie Mellon University and Guest Scholar, The Brookings Institution. During his 40-year diplomatic career he was officer-in-charge for nuclear test ban negotiations; vice-chair, U.S. delegation, START I; chief U.S. negotiator for safe and secure dismantlement of nuclear weapons; head U.S. delegation, conference on confidence- and security-building measures in Europe; member, State Department policy planning staff; ambassador to Finland; and political counselor, U.S. mission to NATO. He is author of *Europe Undivided*, a book concerning U.S.-Russian relations that appeared in February 1998.

JEANNE GUILLEMIN is a Professor of Sociology at Boston College. Her latest book, *Anthrax: The Investigation of a Deadly Outbreak* (University of California Press, 1999) chronicles the scientific inquiry into the source of the 1979 anthrax outbreak in the closed Soviet city of Sverdlovsk. As a member of the team that pinpointed the military cause of the outbreak, she has been involved in numerous workshops and special presentations, for example, at Livermore, Los Alamos, the New York Council on Foreign Relations, for NATO, USAMRIID, the Hastings Center in New York, and, of course, for the Security Studies Program. She has also written on the U.S. military's troubled anthrax vaccination program (AVIP) inaugurated in late 1997 and on the U.S.-Soviet "Yellow Rain" mycotoxin controversy of the 1980s. Her previous research and writing has been on medical technology. Prof. Guillemin has also been a Congressional Fellow, sponsored by the American Anthropological Association, a NEH Fellow at the Hastings Center in New York, a Bunting Fellow at the Radcliffe Institute, and last year, a fellow at the DIBNER Institute for the History of Science and Technology.

JOYCE LEE MALCOLM is Professor of History at Bentley College as well as the Founder and Director of the New England Heritage Center at Bentley. Her latest book, *Guns and Violence: The English Experience*, is an analysis of the relationship between guns and violent crime in England. An earlier book, *To Keep and Bear Arms: The Origins of an Anglo-American Right*, was the first full-scale study by a professional historian of the origins of a significant and controversial liberty, the right to be armed.

DAVID A. ROSENBERG is a Professor at the National War College. He has held positions at the Office of the Secretary of Defense, the Naval War College, the University of Houston, and Temple University. A Commander in the Naval Reserve, Professor Rosenberg is widely regarded as one of the leading historians of U.S. Cold War naval and nuclear strategies. Currently, Professor Rosenberg is completing a biography of Admiral Arleigh A. Burke, the great hero of the modern Navy.

ROBERT ROSS is a Professor of Political Science at Boston College and an Associate at Harvard University's Fairbank Center for East Asian Studies. His research focuses on U.S.-China relations, Chinese foreign policy and Chinese negotiation behavior and he is currently collaborating with the Institute of American Studies at the Chinese Academy of Social Sciences on a project

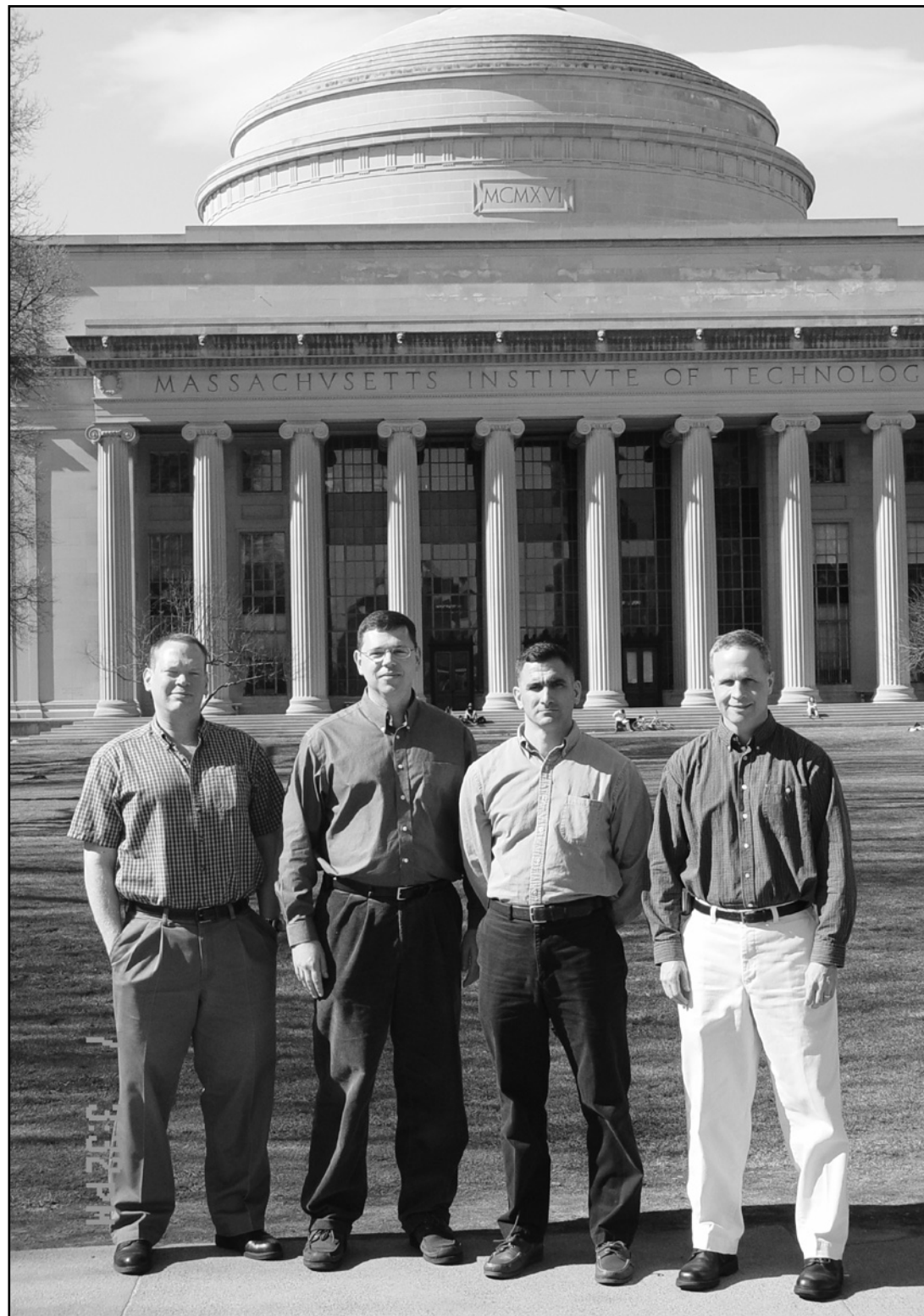
which looks at domestic factors in U.S.-China Relations. His most recent book is *Great Wall and Empty Fortress: China's Search for Security* (W.W. Norton, 1997) with Andrew J. Nathan, and he recently co-edited *U.S.-China Relations 1955-1971: A Reexamination of Cold War Conflict and Cooperation* which will be released soon by Asia Center Press, Harvard University.

MICHAEL SCHRAGE is co-director of the MIT Media Lab's eMarkets Initiative where he oversees research in the design and diffusion of market mechanisms in networks. His ongoing work focuses on the economics and ethology of models, prototypes and simulations in managing innovation and risk. His book, *Serious Play* (Harvard Business School Press, 2000), explores these issues and has been widely adopted as a text in many graduate business and design programs. Mr. Schrage is a member of the advisory board of the *Sloan Management Review*, a columnist for *Technology Review* and a member of the board of directors of Ticketmaster. He has been a lecturer for the Security Studies Professional Program on Innovation and has been an invited lecturer at the National Defense University and an advisor to DMSO. His particular national security interest centers around the cultural and economic conflicts between 'prototype-driven' and 'requirements-driven' design and procurement of weapons systems.

JOEL SOKOLSKY is Dean of Arts and a Professor of Political Science at the Royal Military College of Canada (RMC). His areas of interest and teaching include Canadian foreign and defense policy, international security relations and American foreign and defense policy. He has been the recipient of several scholarships and awards including two NATO Fellowships and two Fulbright Scholarships. In 1995, he was named to the Teaching Excellence Honours List at RMC and in 2003 was awarded the Queen's Golden Jubilee Medal. His works include; *Seapower in the Nuclear Age: The United States Navy and NATO, 1949-1980*, *Canadian Defence Policy: Decisions and Determinants*, *The Americanisation of Peacekeeping: Implications for Canada*, *Projecting Stability: NATO and Multilateral Naval Cooperation in the Post-Cold War Era*, and most recently, *The Soldier and The State in the Post-Cold War Era*.



Our fellows get the best care.



2003-04 SSP Military Fellows: (L-R) Danskin, Gurley, Coia, and Stackpole.

COL PATRICK STACKPOLE, USA

Army Senior Service College Fellow

COL Pat Stackpole was commissioned in the Infantry upon graduation from the U.S. Military Academy in 1981. From 2000 to 2002 he commanded the 1st Battalion, 506th Infantry Regiment at Camp Greaves, Korea. He followed his command with service as the Assistant Chief of Staff for Operations (G3) for the 2d Infantry Division. Pat has been selected to command the 3rd Brigade of the 25th Infantry Division (LI) upon completion of his assignment with SSP. He has a Masters of Military Art and Science from the Army Command and General Staff College.

CDR VAN GURLEY, USN

Navy Federal Executive Fellow

CDR Van Gurley was commissioned in 1987 after earning a BS in Physics from the University of Florida. Prior to his appointment at SSP, CDR Gurley was the Assistant Operations Officer for the GEORGE WASHINGTON Carrier Battle Group. This assignment included participation in the initial Navy homeland defense operations in the wake of the Sept 11th attacks and deployed operations in the Mediterranean, Arabian Sea, and Persian Gulf supporting Operations ENDURING FREEDOM in Afghanistan and SOUTHERN WATCH in Iraq. Originally a submarine officer, Van is a Navy Oceanographer with extensive experience coordinating scientific and operational support for Navy planning and maritime operations. Van holds a dual MS and Engineering degree in Ocean Engineering from MIT and the Woods Hole Oceanographic Institute. After SSP, he is headed to the Naval Oceanographic Office (NAVOCEANO) at the Stennis Space Center, Gulfport, MI.

COL RAYMOND COIA, USMC

Commandant of the Marine Corps Fellow

Upon graduation from the University of Dayton and the Officer Candidate School, Col Ray Coia was commissioned a Second Lieutenant, August 1982. His more recent assignments include Politico-Military Planner in the Balkans Branch, Central and Eastern European Division, Strategic Plans and Policy Directorate, the Joint Chiefs of Staff in 1999; and prior to his appointment at SSP, commander of the 2nd Reconnaissance Battalion, 2nd Marine Division, June 2001 to June 2003. Ray received his Masters in Military Studies from the Marine Corps Command and Staff College. Next year he will assume the role of G-3, Chief of Plans and Operations, 2nd Marine Expeditionary Brigade at Camp Lejeune, NC.

LT COL WILLIAM (MOOSE) DANSKINE, USAF

United States Air Force Fellow

Lt. Col. Moose Danskin was commissioned into the Air Force in 1988 as a distinguished graduate of the Oregon State University ROTC program, with a degree in civil engineering. Prior to his appointment at SSP, Moose was Chief of the Intelligence, Surveillance and Reconnaissance (ISR) Branch in the Intelligence Directorate of the U.S. European Command, Stuttgart, Germany. Moose holds three graduate degrees: public administration from the University of Oklahoma, military operational arts from the Air Command and Staff College, and airpower arts and science from the School of Advanced Airpower Studies. He is a distinguished graduate of both the U.S. Air Force Weapons School and the Air Command and Staff College and is also a graduate of the Squadron Officer School and Air War College. Next year, Moose will take a flying assignment with the 55th Wing at Offutt Air Force Base in Omaha, NE.

RESEARCH FELLOWS

PETER DUFFY is a senior manager at the Naval Undersea Warfare Center (NUWC) in Newport, Rhode Island. NUWC operates the Navy's laboratory for research, development, test and evaluation, and fleet support of undersea submarine systems. During his career Mr. Duffy has held several acquisition and line management positions including: Lightweight Torpedo Program Manager, Head of the Missile Systems Division, Head of the Missile and Platform Systems Department and Director of Strategic Planning. Mr. Duffy served in the U.S. Navy from 1973–1977 as a Deep Sea Diver at the fleet ballistic missile submarine base in Holy Loch, Scotland. He earned a B.S. in mechanical engineering in 1983 from the University of Massachusetts, Amherst and a M.B.A. from the Massachusetts Institute of Technology in 2000. He is an Alfred P. Sloan Fellow. He is also a 1990 graduate of the Program Managers Course at the Defense Systems Management College, Ft. Belvoir, Virginia.

LISBETH GRONLUND is a Senior Staff Scientist at the Union of Concerned Scientists, a public interest research group based in Cambridge, MA. After receiving her Ph.D. in theoretical physics from Cornell University in 1988, she made her first foray to MIT SSP, spending two years as a postdoctoral fellow. She then became a senior visiting scholar in the Center for International Security Studies at the University of Maryland, College Park, and is currently on the Executive Committee of the American Physical Society's Forum on Physics and Society. Dr. Gronlund's research has focused on technical aspects of arms control, and she has written on the issues of depressed-trajectory ballistic missiles, space-based and ground-based ballistic missile defenses, and the proliferation of ballistic missiles. She is currently carrying out a study, with other members of the MIT SSP Technical Working Group, on the implications of advanced theater missile defenses for the ABM Treaty.

DAVID WRIGHT is a Senior Staff Scientist at the Union of Concerned Scientists and a research fellow in the Security Studies Program at MIT. Previously he was a SSRC-MacArthur Foundation Fellow in International Peace and Security at Harvard's Center for Science and International Affairs, and a senior arms control analyst at the Federation of American Scientists. His current research includes ballistic missile defenses and technical analysis of ballistic missile development programs. He has also written on international fissile material controls, estimates of Chinese production of plutonium for weapons, and depressed-trajectory ballistic missiles. He served on the Social Science Research Council Committee on International Peace and Security and is currently an associate editor of *Science and Global Security*. Wright received his Ph.D. in physics from Cornell University in 1983.

SANFORD WEINER is a policy analyst focusing on technology and organizational change in the chemical, health and defense industries. Currently he is working on comparative studies of defense and civilian innovation, including the JSTARS radar plane. He is also looking at cross-national responses to health and environmental risks. Mr. Weiner has previously been on the research staffs at the School of Public Policy, University of California/Berkeley, the Heller School at Brandeis University, and two other policy research centers at MIT. He currently manages the MIT Professional Courses "Promoting Innovation: Organizations and Technology," and "Combating Bioterrorism: The Organizational Response."

QIU YONG joined our program in January 2003. He comes from China where he received his degree in 1993 from the Department of Mechanics at Tianjin University. He then joined the China Academy of Engineering Physics (CAEP) to become one of the technical staff. Since then, he has been working for CAEP on the trajectory of re-entry vehicles and aerodynamics. He attended the Shanghai Summer Symposium on Science and World Affairs in 1999, which became the starting point of his interest in arms control studies. His research now is focused on missile defense.

EUGENE GHOLZ is Assistant Professor at the University of Kentucky's Patterson School. His work primarily concerns defense management and the creation of national power. Specific questions include how the government should decide what weapons to buy, how and when to stimulate technological innovation, and how to manage business-government relations, especially in high technology, from both business and government perspectives. During the 1998-99 academic year, Dr. Gholz taught in George Mason University's International Commerce and Policy Program. Prior to that, he was a national security fellow at Harvard University's Olin Institute of Strategic Studies. He received his Ph.D. from the MIT Department of Political Science.

DARYL PRESS is Assistant Professor of Government at Dartmouth College. His research focuses on U.S. foreign policy, crisis decision-making, military forces and operations, and the connections between economics and war. Professor Press is finishing a book manuscript that examines the effects of a country's actions in one crisis on its credibility in future crises. In other projects, he is finishing an article with Prof. Eugene Gholz on the effects of wars on oil prices. Professor Press is also a consultant at the RAND Corporation where he has worked on many studies relating to U.S. military planning in the Persian Gulf region and Korea.

LAURA REED received her Ph.D. in Political Science from the Massachusetts Institute of Technology in February 1995, and was an Assistant Professor at Wellesley College during the spring semester of 1995. Formerly a program officer for the Committee on International Security Studies (CISS) at the American Academy of Arts and Sciences, she has edited CISS volumes including: *Lethal Commerce: The Global Trade in Small Arms and Light Weapons* (with Jeffrey Boutwell and Michael Klare), *Collective Responses to Regional Problems: The Case of Latin America and the Caribbean* (with Robert Pastor and Carl Kaysen), and *Emerging Norms of Justified Intervention* (with Carl Kaysen). Her current research examines the feasibility of a United Nations military force.

SHWETA SAXENA joined the Security Studies Program in June 2003 as a research Affiliate. She is a Political Scientist with a journalistic background from India. Specializing in South Asian conventional and nuclear security issues, she completed her Masters in Political Science and an MPhil in International Politics (2002) from Delhi University, India. Her dissertation "Confidence Building Measures Between India and Pakistan: Beyond Simla Agreement" forms the basis for her work at SSP. She is a degree holder in Production, Direction and TV journalism from the Asian Academy of Film and Television (India). Her media career (1998-2002) involves orchestrating and presenting interview based shows for All India Television network, mainly focusing on political issues. She was also involved with All India Radio in researching and presenting approximately 200 shows based on such issues as 'state politics' and 'public policies.' She had the

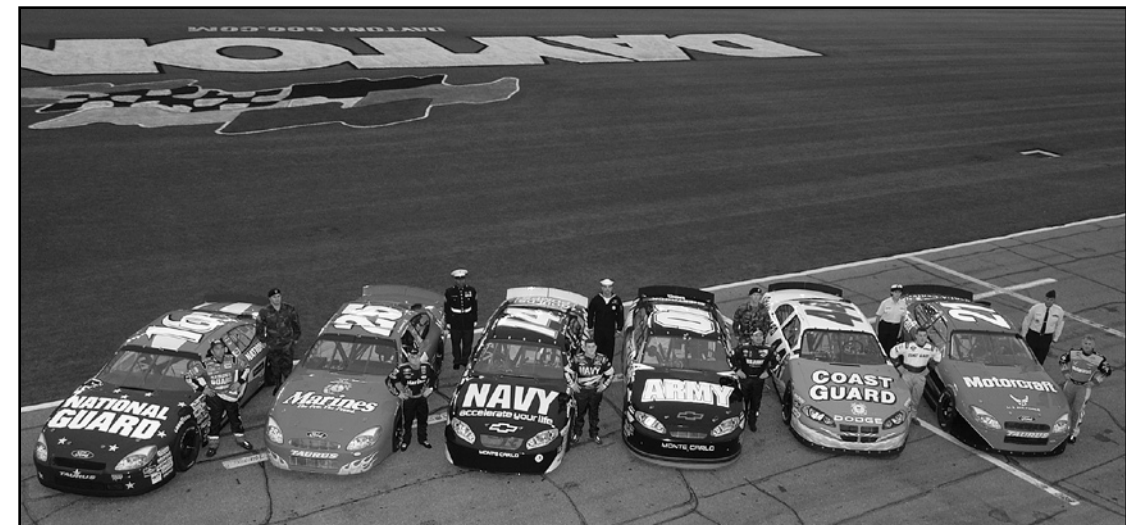
RESEARCH AFFILIATES

opportunity to research and direct documentaries for Border Security Force in Kashmir. Her published work includes various articles in national newspapers of India. She is currently working on nuclear non-proliferation in South Asia; military and nuclear confidence building measures between India and Pakistan; and, the nature of international terrorist organizations and how they have changed from the past.

JORN SILJEHOLM holds a Ph.D. in environmental chemistry, risk analysis and toxicology from the University of Oslo. He served as a weapons inspector in Iraq with the United Nations (UNMOVIC) from 2002-2003. Affiliated with SSP since 1994, he spent the four previous years at MIT's Center for Technology, Policy and Industrial Development, and was primary initiator and fundraiser for the MIT Chlorine Project, begun in 1991. He served as environmental chemist and environmental advisor for Esso Norway refineries, advisor to CONCAWE, the European oil companies' joint research organization, and Executive Vice President for Communications at Norway's largest finance company, Storebrand. He was executive director of Aturevernforbundet, the Norwegian Society for the Conservation of Nature, and chaired the Norwegian Research Organization for Pharmacology and Toxicology. Leading up to the 1992 UN Conference on Environment and Development, he authored the statement of non-governmental organizations.

EMERITI **CARL KAYSEN** is David W. Skinner Professor of Political Economy Emeritus in the Program in Science, Technology, and Society and a Senior Lecturer at the MIT Center for International Studies. Dr. Kaysen earned his B.A. in Economics at the University of Pennsylvania, and his Ph.D. at Harvard University, where he was an economics professor from 1950-1966. From 1966 until 1976, when he came to MIT, he was Director of the Institute for Advanced Study at Princeton and from 1961-1963 he was the Deputy Special Assistant for National Security Affairs to President Kennedy. He has served as a consultant to RAND, the Defense Department, and the CIA. Chairman of the Committee on Security Studies of the American Academy of Arts and Sciences, Dr. Kaysen is currently engaged in a series of studies under the auspices of the Committee on the role of international law and international norms in providing peace and security.

MARVIN M. MILLER recently retired from the position of Senior Research Scientist in the Department of Nuclear Engineering at MIT. He is now a Research Affiliate at the MIT Center for International Studies and the Department of Nuclear Engineering. After undergraduate work at the City College of New York, he received an M.A. in Physics from the University of Rochester and a Ph.D. in Electrical Engineering from the Polytechnic Institute of New York. Prior to joining MIT in 1976, Dr. Miller was an Associate Professor of electrical engineering at Purdue University conducting research on laser theory and applications. At MIT his research has focused on arms control, particularly nuclear proliferation, and the environmental impacts of energy use. In the proliferation area, his major interests are the Middle East and South Asia; he has also worked on such issues as international safeguards and export controls on sensitive nuclear technologies, the disposition of plutonium from retired nuclear weapons, and the proliferation implications of foreign nationals studying at U.S. universities. From 1984 to 1986, Dr. Miller was a Foster Fellow with the Nuclear Weapons and Control Bureau of the U.S. Arms Control and Disarmament Agency, and is currently a consultant on proliferation issues for the State Department and the Argonne National Laboratory.



Faster than the emeriti usually like to drive.

GEORGE W. RATHJENS became Professor in the Department of Political Science after service with the Institute for Defense Analyses, the U.S. Arms Control and Disarmament Agency, the Advanced Research Projects Agency of the Department of Defense, the Office of the President's Science Advisor, and the Weapons Evaluation Group of the Department of Defense. He has also served in the Department of State. Dr. Rathjens received his B.S. from Yale University and completed his Ph.D. in chemistry at the University of California at Berkeley. He has been active in a number of associations, including the Council for a Livable World and the Federation of American Scientists both of which he has been Chairman. He recently retired as secretary-general of the Pugwash Conferences on Science and World Affairs. Dr. Rathjens' major policy interests are nuclear arms issues, environmental problems, with special emphasis on conflict and the environment, and post-Cold War international security questions, including particularly problems of intervention in instances of ethnic and intrastate conflict.

JACK RUINA is Professor Emeritus of Electrical Engineering, MIT. Prof. Ruina was an undergraduate at the City College of New York and did his graduate work at the Polytechnic Institute of Brooklyn, earning his MEE and DEE there. He has been granted the Outstanding Alumnus Award from both colleges. He taught at Brown University and the University of Illinois; at the latter he also headed the Radar Division of the Control System Laboratory. While on leave from the University of Illinois, he served in several senior positions at the Department of Defense, the last being Director of the Advanced Research Projects Agency and was honored with the Fleming Award for being one of ten outstanding young men in government in 1962. He served on many government committees including a presidential appointment to the General Advisory Committee, 1969-1977, and acted as Senior Consultant to the White House Office of Science and Technology Policy, 1977-1980. He also held the post of President of the Institute for Defense Analyses. At MIT, he has held the position of Vice President for Special Laboratories and was Secretary of the MIT Faculty. Prof. Ruina remains an honorary member of the Board of Trustees for The MITRE Corporation. He was instrumental in establishing the Security Studies Program and was its first Director. Prof. Ruina's special interest is in strategic weapons policy.

SEMINAR and DINNER SERIES

SSP SEMINAR SERIES FALL 2003

The Security Studies Wednesday Seminar Series provides a forum for discussing current security topics and the varying disciplinary perspectives on security studies. This is the Program's primary seminar series, held in the traditional Wednesday 12-noon timeslot. Summaries of this series are posted electronically at our website: <http://web.mit.edu/ssp>

September 17, 2003

Update on the War on Terror

Steven Simon, Senior Analyst
RAND

September 24, 2003

When States Fail: Causes and Consequences

Robert Rotberg, Adjunct Lecturer and Director of Program on Intrastate Conflict and Conflict Resolution, Belfer Center for Science and International Affairs, Harvard University

October 1, 2003

The Shiite Factor in Gulf Politics

Michael Doran, Assistant Professor
Dept. of Near Eastern Studies, Princeton University;
Adjunct Senior Fellow, Council on Foreign Relations

October 8, 2003

European Union Security and Defense Policy

Barry Posen, Professor, Dept. of Political Science
MIT Security Studies Program Faculty

October 15, 2003

Securing Nuclear Materials in Russia and Beyond

Laura Holgate, Vice President for Russia/New Independent States Programs
Nuclear Threat Initiative

October 22, 2003

The Role of the Military in Post-Conflict Reconstruction: Current Issues and Challenges in Afghanistan and Iraq

Jennifer Leaning, Professor
Dept. of Population and International Health
Harvard University

October 29, 2003

Critical Challenges for the United States: The Fast War and Slow Peace

VADM Dennis McGinn, USN (ret.), Vice President
Strategic Planning and Business Development
Battelle

November 5, 2003

The Structure of the Second Nuclear Age

Paul Bracken, Professor
Yale University

November 12, 2003

Continuity and Change in Japanese Security Policy: Testing International Relations' Theories

Jennifer Lind, Ph.D., Political Science, MIT;
Visiting Fellow, Dickey Center for International Understanding, Dartmouth College

December 3, 2003

Why the United States is a Target for Terrorism

Martha Crenshaw, Professor
Department of Government, Wesleyan University

February 4, 2004

Israel's New National Policy Debate

Shai Feldman, Director
The Jaffee Center for Strategic Studies
Tel Aviv University

February 11, 2004

The Looting of Iraq's Cultural Treasures

Col. Matthew Bogdanos, USMCR
Lead Investigator, Iraq National Museum Looting Investigation

February 18, 2004

American Public Opinion and WWII

Adam Berinsky, Assistant Professor
Department of Political Science, MIT

February 25, 2004

Realism Canadian Style: The Chretien Legacy in National Security Policy

Joel Sokolsky, Dean and Professor, Dept. of Political Science, Royal Military College of Canada

March 3, 2004

The Rise of China and the New Balance of Power in East Asia

Robert Ross, Professor
Dept. of Political Science, Boston College

March 10, 2004

Origins of a European Security Community

Mark Sheetz, Research Fellow
Belfer Center, Harvard University

March 30, 2004

Transformation of the Modern Liberal State: War, Politics and Rights

Harvey Rishikof, Visiting Professor of Law
National War College

April 7, 2004

Submarine Operations and AntiSubmarine Warfare: View from Both Sides of the Periscope

CDR Van Gurley, USN Military Fellow
MIT Security Studies Program

April 28, 2004

The Coast Guard and US Security

VADM Thad Allen, Chief of Staff
U.S. Coast Guard

May 19, 2004

Phase IV and the MIT Connection

Colonels Mike Williams and Brooks Brewington, USMC
and LtCol Mary Whisenhunt, USAF

SSP SEMINAR SERIES SPRING 2004

SEMINAR and DINNER SERIES

STAR SEMINARS

Our Star Seminar series offers the program the opportunity to hear from senior government officials and military officers.

May 8, 2003

The Army's Plans for Transformation and Its Role in the Iraq and Afghanistan Wars

Gen. John M. Keane, Vice Chief of the Staff
U.S. Army

November 20, 2003

Report on Army Transformation

BG Robert E. Durbin, Deputy Director
Program Analysis and Evaluation
Office of the Deputy Chief of Staff, G-8 USA

December 16, 2003

The Future of Air Defense

Maj. Gen. Michael Vane, Commanding Officer
U.S. Army Air Defense Artillery

February 10, 2004

Aircraft Carrier - Air Wing Operational Employment: Projecting Power from the Sea

RADM William McCarthy, USN
Deputy Director for Operations, The Joint Staff;
Former Commanding Officer, USS George Washington

February 26, 2004

War on Terror and his responsibilities in Southern Command

Gen. James T. Hill, Commander
US Southern Command

May 4, 2004

At the Abyss: An Insider's History of the Cold War

Tom Reed, Former Secretary
U.S. Air Force



Looking in every spider hole.

This series reviews America's new wars: Afghanistan and Iraq.

AMERICA'S NEW WAR

October 3, 2003

Building Security in Afghanistan

Maj. Gen. Karl Eikenberry, USA

October 7, 2003

Did Saddam Cooperate with UN Inspectors?

Geoffrey Forden, Senior Research Associate
MIT Security Studies Program

October 24, 2003

Coalition Operations in Afghanistan

John Gordon, Senior Military Affairs Specialist
RAND

November 3, 2003

Operation Iraqi Freedom, a Land Component Command Overview

Col. Kevin Benson, USA

November 21, 2003

Planning the Iraq War

Col. Michael Trahan, USA

November 24, 2003

View from the E-Ring: War in Afghanistan and Iraq

Major General William B. Caldwell IV
Senior Military Assistant to the Deputy Secretary of
Defense

December 10, 2003

The Iraq War: Causes and Consequences

MIT Security Studies Program Faculty

March 19, 2004

Iraq War Update

MIT Security Studies Program Faculty

May 3, 2004

Army Engineers in Operation Iraqi Freedom

Col Gregg Martin, USA

SEMINAR and DINNER SERIES

TECHNICAL SEMINARS

MIT SSP organizes the Technical Seminars as a means of bringing together the researchers in the Cambridge area working on technical aspects of arms control and security policy. These seminars emphasize presentations about technical work-in-progress by local researchers, with occasional seminars by outside speakers.

September 25, 2003

China's Navigation Satellite Program

Geoffrey Forden, Senior Research Associate
MIT Security Studies Program

October 9, 2003

The American Physical Society's Boost Phase Missile Defense Study

David Mosher, Senior Policy Analyst
RAND

October 23, 2003

Sensor Performance in the IFT-1A Missile Defense Test

Theodore Postol, Professor
Program in Science, Technology and Society, MIT

October 30, 2003

Russian Military Space Programs: An Overview

Pavel Podvig, Senior Research Associate
The Moscow Institute of Physics and Technology

November 13, 2003

Space Surveillance Awareness Technology

Grant Stokes, Associate Division Head
Lincoln Laboratory, MIT

November 20, 2003

Weaponization of Biological Agents

Jack McGeorge, UN Weapons Inspector

April 15, 2004

The Nature and Structure of International Terrorist Organizations: Understanding Our Enemy

Shweta Saxena, Affiliate Researcher
MIT Security Studies Program

April 21, 2004

WMD Proliferation: The Implications of Libya, Pakistan, Iraq and DPRK

Thérèse Delpech, Director of Strategic Affairs
French Atomic Energy Commission

May 6, 2004

An Informed Guess on Why the Patriot Fired Upon Friendly Aircraft during Operation Iraqi Freedom

Theodore Postol, Professor
Program in Science, Technology and Society, MIT

May 13, 2004

Biotechnology Control Measures: a Gap in International Security?

Aleksandr Rabodzey, Research Affiliate
MIT Security Studies Program

This series provides an opportunity for our military visitors to explain weapon developments within their service. It provides the non-professional with an introduction to the professional's tools.

WEAPONS SEMINAR

July 1, 2003

Problems in Estimating Biowarfare and Bioterrorism Capabilities and Threats

Sanford Weiner, Research Fellow
MIT Security Studies Program

February 27, 2004

U.S. Marine Corps Infantry Weapons

1/25 Marine Corps



Convoy operations, Iraq.

SEMINAR and DINNER SERIES

Each year, SSP Faculty and Fellows give a series of talks and classes at two defense research facilities: Draper Laboratory in Cambridge, MA and, MIT's Lincoln Laboratory in Lexington, MA.

DRAPER LAB TALKS

June 3, 2003

The North Korea Nuclear Problem and US-China Relations

Thomas Christensen, Professor
Woodrow Wilson School of Public and International Affairs, Princeton University

July 29, 2003

Issues in Missile Defense

Theodore Postol, Professor
Program in Science, Technology and Society, MIT

October 14, 2003

Army Transformation

Owen Cote, Principal Research Scientist, MIT;
Associate Director, MIT Security Studies Program

LINCOLN LAB TALKS

January 9, 2004

Did Saddam Cooperate with UN Weapons Inspectors?

Geoffrey Forden, Senior Research Associate
MIT Security Studies Program

February 20, 2004

Perfect Information and Perverse Incentives: Costs and Consequences of Transformation and Transparency

Michael Schrage, Co-Director
E-Markets Initiative
MIT Media Laboratory

FUTURE OF WAR

For several years the MIT Security Studies Program, in conjunction with The Olin Institute and the Belfer Center for Science and International Affairs at Harvard, has presented the Future of War dinner series on the belief that war does indeed have a future.

March 11, 2004

Marine Corps Warfighting Readiness and Continued Excellence in Support of the Nation

Gen. Michael Hagee, 33rd Commandant
U.S. Marine Corps

April 30, 2004

Post-Conflict Iraq and U.S. Grand Strategy for the Middle East: The Role of Multilateral Institutions

Jane Holl Lute, Assistant Secretary-General for Peacekeeping Operations
The United Nations



On the job in Iraq.

SEMINAR and DINNER SERIES

GENERAL JAMES H. DOOLITTLE DINNER

Each year the MIT Security Studies Program honors the memory of General Jimmy Doolittle, aviation pioneer, Second World War hero, airpower advocate, and MIT graduate (SM' 24 and Ph.D. '25) with a dinner devoted to a related topic.

April 29, 2004

Air, Land and Naval Warfare in the Second World War: A Reconsideration

Paul Kennedy, Professor of History; Director of International Security Studies
Yale University

The speaker for this year's dinner was Professor Paul Kennedy, J. Richardson Dilworth Professor of History, and Director of International Security Studies, Yale University. Prof. Kennedy spoke on the topic "Doolittle After 62 years: Air, Land and Naval warfare in the Second World War." Prof. Kennedy was presented with the General James H. Doolittle Award by SSP Director Harvey Sapolsky for Furthering Public Understanding of Airpower.



CONFERENCES and WORKSHOPS

August 26, 2003

Army Experimentation and the Stryker Brigades: Supporting the Transition to the Objective Force

Royal Sonesta Hotel, Cambridge, MA

The purpose of this conference was to better inform public discussions and debates about Army transformation. It identified important operational and technical innovations that will be central to the Army's transition to the objective force. Thirty participants representing the Army, private industry and academia attended the one-day event. Maj. Gen Michael Maples, Commander of the US Army Field Artillery Center was the dinner keynote speaker. A MIT Security Studies Conference Report that will both provide a primer on major Army transformation issues, and a discussion of the need for Army transformation, is being developed and expected to be published at the end of 2004.

October 28, 2003

Boost-Phase Ballistic Missile Defense

MIT Security Studies Program, Cambridge, MA

Members of the SSP Technical Working Group (TWG), the Union of Concerned Scientists, Rand and the U.S. Congressional Budget Office attended this informal workshop to review the TWG's technical analysis on the Boost-Phase Ballistic Missile Defense, and to explore other issues relating to the question.

January 30, March 26, April 22, 2004

Combating Terror: Prioritizing the Threats

MIT Security Studies Program, Cambridge, MA

The SSP Technical Working Group sponsored three private workshops to study the threat of terrorism in the U.S. The September 11, 2001 attack was a major component of the study from which comparisons were drawn to such terrorist attacks as commando raids against nuclear power stations or mortar attacks against chemical storage tanks. In their effort to understand which types of terrorist attacks deserve society's highest priority to prevent, participants cataloged and prioritized attacks, based on the number of casualties and ease/likelihood of the attack. Participants discussed the methods used to prioritize the threats, including the technical and tactical skills required. To conclude, attention was turned to ways of combating such attacks in the future.

CONFERENCES and WORKSHOPS

January 15-16, 2004

Electronic Warfare Workshop

MIT Security Studies Program

Visiting Instructors Captains Eisenstein, Drapeau and Luther, of the U.S. Air Force's 563rd Flying Training Squadron taught this two-day introduction to electronic warfare (EW). The course covered topics ranging from the history of electronic warfare to the physics of radar tracking and radar jamming to the inventory of EW assets in the U.S. military. Current controversies in the EW community were discussed and ideas were offered on possible fixes. SSP was the first stop on the workshop's country road tour.

April 29, 2004

Diplomatic and Military History

Hotel@MIT, Cambridge, MA

This conference examined the status of diplomatic and military history in academia. Organizers Professors Harvey Sapolsky, Steve Van Evera and Michael Desch (University of Kentucky) presented three panels of distinguished historians from educational institutions across the country. Two of the panels considered the state of military and diplomatic history, and the third focused on "where do we go from here?" Finally, participants discussed ways to ensure the status of diplomatic and military history after the current generation retires.

FIELD TRIPS

March 14-17, 2004

Trip to Nellis AFB and NAS Fallon

Nevada

March 19, 2004

Ship tour of the USS Normandy (CG 60)

Boston Harbor

April 18-19, 2004

Trip to Fort Sill

Oklahoma

April 21, 2004

Trip to Camp Lejeune (CAPEX)

North Carolina

May 17, 2004

Trip to Sikorsky Aircraft

Connecticut



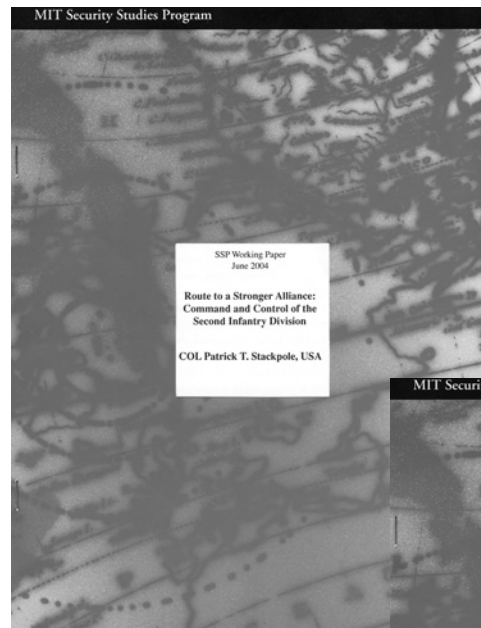
(top) USS Normandy field trip
(Bottom) Fallon/Nellis field trip

PUBLICATIONS

MIT SECURITY STUDIES WORKING PAPERS

Marc DeVore, "The Airborne Illusion: Institutions and the Evolution of Postwar Airborne Forces." SSP Working Paper WP04-1, June 2004.

COL. Patrick T. Stackpole, USA, "Route to a Stronger Alliance: Command and Control of the Second Infantry Division." SSP Working Paper WP04-2, June 2004.



BREAKTHROUGHS

VOL. XIII, NO. 1 SPRING 2004

Harvey M. Sapolsky, "Strategic ASW: Making the Deterrent Vulnerable"

Peter L. Duffy, "Principles of Ethical Conduct: The Ultimate Bait and Switch"

Michael Schrage, "Digital Dishonesty as Best Policy"

Geoffrey Forden, "China's Satellite-Based Navigation System: Implications for Conventional and Strategic Forces"

Benjamin Friedman, "Leap Before You Look: The Failure of Homeland Security"

Faculty Spotlight: Geoffrey Forden

EARLY WARNING

SSP Newsletter, produced eight times per year.



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MIT SSP Security Studies Program Massachusetts Institute of Technology	

PUBLICATIONS

FACULTY AND AFFILIATE PUBLICATIONS

Cote, Owen R. Jr., "The Personnel Needs of the Future Force," in Cindy Williams (ed), *Filling the Ranks: Transforming the U.S. Military Personnel System* (Cambridge, MA.: 2004).

Felbab-Brown, Vanda, "High Politics," op-ed, *The Washington Times*, (October 31, 2003).

Forden, Geoffrey, "Strategic Uses for China's Bei Dou Satellite System," *Jane's Intelligence Review*, October 2003, pp. 26-31.

Forden, Geoffrey, "Intention To Deceive: Iraqi Misdirection of UN Weapons Inspectors," *Jane's Intelligence Review*, March 2004, pp. 30-39.

Forden, Geoffrey, "Saddam's Frenetic Last Month," *Precis*, MIT Center For International Studies, Spring 2004, pp. 6-8.

Gholz, Eugene, "Military Transformation, Political Economy Pressures and the Future of Trans-Atlantic National Security Space Cooperation," *Astropolitics*, Vol. 1, No. 2 (Fall 2003).

Dombrowski, Peter J., Eugene Gholz, and Andrew L. Ross, "Military Transformation and the Defense Industry after Next: The Defense Industrial Implications of Network-Centric Warfare," *Newport Paper No. 18*, Newport, RI: Naval War College Press, November, 2003.



Navy trying to get a leg up in Pentagon wars.

Gholz, Eugene, "Systems Integration in the U.S. Defense Industry: Who Does It and Why Is It Important?" in Andrea Prencipe, Andrew Davies and Mike Hobday, eds., *The Business of Systems Integration*, (New York: Oxford University Press, 2003), pp. 279-306.

Gholz, Eugene, "Czars and Company Men: The Wrong Way to Run National Security Space Acquisition," *Georgetown Journal of International Affairs*, (Summer, 2004).

Gholz, Eugene, Daryl G. Press, and Harvey M. Sapolsky, "Come Home, America," *The American Conservative*, Vol. 3, No. 11 (June 7, 2004), pp. 15-19.

Gronlund, Lisbeth, Wright, David, Lewis, George N., and Coyle, Philip E. III, *Technical Realities: An Analysis of the 2004 Deployment of a U.S. National Missile Defense System*, (Cambridge, Mass: Union of Concerned Scientists, May 2004).

Guillemin, Jeanne, "Bioterrorism and the Hazards of Secrecy: A History of Three Epidemic Cases," *Harvard Health Policy Review*, 2003, 4 (1).

Guillemin, Jeanne, "Medical Risks and the Volunteer Army," *Anthropology and the United States Military: Coming of Age in the Twenty-first Century*, edited by Pamela R. Frese and Margaret Harrell (Palgrave, 2003).

Koblentz, Gregory, "Pathogens as Weapons: The International Security Implications of Biological Warfare," *International Security*, Winter 2003/2004, Vol. 28, No. 3.

Koblentz, Gregory, "Biological Terrorism: Understanding the Threat and America's Response," in Arnold Howitt and Robyn Pang, eds., *Countering Terrorism: Dimensions of Preparedness*, (Cambridge, MA: MIT Press, 2003).

Lewis, George N., "Estimating the Detection Range of a THAAD-Like Seeker," Appendix C of He Yingbo and Qiu Yong, "THAAD-Like High Altitude Theater Missile Defense: Strategic Defense Capability and Certain Countermeasure Analysis," *Science and Global Security*, Vol. 11, Nos. 2-3 (2003), pp. 198-202.

R. Alvarez, J. Beyea, K. Janberg, J. Kang, E. Lyman, A. Macfarlane, G. Thompson, and F. von Hippel, "Reducing the hazards from stored spent power reactor fuel in the United States," *Science and Global Security*, 11, (2003)1-51.

R. Alvarez, J. Beyea, K. Janberg, J. Kang, E. Lyman, A. Macfarlane, G. Thompson, and F. von Hippel, "Response by the Authors to the NRC Review of "Reducing the hazards from stored spent power reactor fuel in the United States," *Science and Global Security*, 11, (2003) 213-223.

Macfarlane, Allison, "Will Nuclear Energy Drive the Twenty-first Century? In Andrew Heintzman, editor, *Fueling the Future*, Toronto: Anansi Press (2003) .

Macfarlane, Allison, Senate Testimony: Statement of Allison Macfarlane of the Security Studies Program, MIT, Before the Senate Energy and Water Development Subcommittee, In Las Vegas, Nevada, May 28, 2003.

Macfarlane, Allison, "Underlying Yucca Mountain: The Interplay of Geology and Policy in Nuclear Waste Disposal," *Social Studies of Science*, 33/5, (2003) 783-807.

Macfarlane, Allison "Is the Yucca Nuke Dump All Wet?" *Technology Review Online*, October 22, 2003, <http://www.technologyreview.com>.

Oliker, Olga and Szayna, Thomas S., (eds.) *Faultlines of Conflict in Central Asia and the South Caucasus*, (Rand 2003).

Posen, Barry, "Europe Cannot Advance on Two Fronts," *Financial Times*, April 24, 2004.

Posen, Barry, "The European Security Strategy—Practical Implications" in *A Security Strategy for Europe. The Oxford Journal for Good Governance*, May 2004, pp. 1-68.

Posen, Barry, "ESDP and the Structure of World Power," *The International Spectator*, Vol. XXXIX, No. 1, January - March 2004.

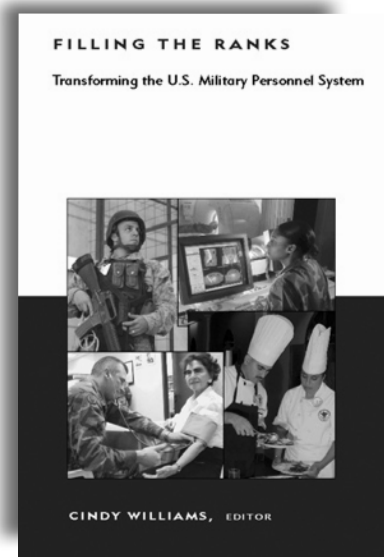
Posen, Barry, "Command of the Commons: The Military Foundation of U.S. Hegemony," *International Security*, Vol. 28, No. 1 Summer, 2003.

Williams, Cindy (ed), *Filling the Ranks: Transforming the U.S. Military Personnel System* (MIT Press, 2004); also author of two chapters of the book.

Williams, Cindy, "Paying for the War on Terrorism," *ECAAR NewsNetwork, the newsletter of economists allied for arms reduction*, Vol. 16, Issue 1, March 2004, pp. 1-4.

Williams, Cindy, "Outdated Policies Blunt the Effectiveness of Military Pay and Benefits," to appear in Briefing Book prepared by the Security Policy Working Group (SPWG) for media briefing in Washington, DC, January 9, 2004.

Williams, Cindy, Vincent Medina, and Sylvain Daffix, "La Gestion des Ressources Humaines Militaires: L'Apport de la Théorie des Incitations," *ECODEF, Direction des Affaires Financières, Observatoire Economique de la Défense, Ministère de la Défense*, France, No. 28, July 2003.



SSP TEACHING

Our Program's courses – what MIT prefers to call subjects – are open to all students eligible to attend classes at MIT, including cross-enrollers from Harvard and Wellesley. Most of the subjects are offered at the graduate level and through the Political Science Department.

Political Science doctoral candidates may use Security Studies as one of their fields of concentration. Within that context, security studies has two principal objectives: first, it introduces the student to the study of American defense policy, including the policy process, arms control, force structure, and military budgets. Second, it introduces the student to the study of the role of force in international politics and how countries have historically pursued their security interests. Students are expected to develop some competence in the methods of systems analysis, technology assessment, and strategic reasoning that shape the size and composition of U.S. strategic nuclear and general-purpose forces. The international military competition, the prospects for arms control and their implications for U.S. force planning receive special consideration in several subjects. Others examine some of the same issues by contrasting U.S. experiences and approaches with those of rivals and allies.

Students who plan to offer Security Studies for the general examination take two graduate-level subjects from those listed below in the Forces and Force Analysis section, and one subject each from the listing in the Defense Politics and in the Comparative Defense Policy sections. Competence in technical analysis is required. A background in economics to

intermediate level with particular emphasis on macroeconomics and public finance is advisable. The subjects in the Forces and Force Analysis section will provide sufficient review of the technical approaches to be examined. Check with the Program for a current list of subjects as the offerings can change each year.

The write-off requirement is three subjects with equal distribution among the three sections preferred although approval for alternative distributions may be granted in consultation with field faculty. A number of substantive fields in the Political Science Department deal with important determinants of U.S. defense programs and expenditures. Among the most closely related are: American Politics, International Relations and Foreign Policy. Students of defense policy are also encouraged to take subjects in economics.

COURSES

FORCE AND FORCE ANALYSIS

17.476J/STS.435J **Nuclear Forces and Missile Defenses** Postol [G]

Introduces the assessment of strategic nuclear forces. Emphasizes the development of force requirements and methods of analyzing alternative force postures in terms of missions, effectiveness, and cost. The history of U.S.-Soviet strategic competition provides the backdrop against which the evolution of nuclear strategy and forces is considered.

17.477/STS.076 **Technology and Policy of Weapons Systems** Postol [U]

Examines in detail the technology of nuclear weapons systems. Topics include nuclear weapons design, effects, targeting, and delivery; ballistic and air breathing missile propulsion and guidance; communications and early warning techniques and systems; and anti-missile, air, and submarine systems. Combines the discussion of technical materials with the national security policy issues raised by the capabilities of those technologies. Considers security issues from the distinct and often conflicting perspectives of technologists, military planners, and political leaders.

17.482-3J/STS 071J/STS 450J **U.S. Military Power** Posen/Postol [U/G]

Based on the concept of Grand Strategy as a system of inter-connected political and military means and ends. Topics covered include U.S. grand strategy, the organization of the U.S. military, the defense budget, ground forces, tactical air forces, naval forces, power projection forces, and the control of escalation. Particular episodes of military history that offer insights into current conventional forces issues are examined. Graduate students are expected to pursue the subject at greater depth through reading and individual research.

17.40 **American Foreign Policy:**

Past, Present, Future Van Evera [U]

This subject's mission is to explain and evaluate America's past and present foreign policies. What accounts for America's past wars and interventions? What were the consequences of American policies? Overall, were these consequences positive or negative for the U.S.? For the world? Using today's 20/20 hindsight, can we now identify policies that would have produced better results? History covered includes World Wars I and II, the Korean and Indochina wars, and the Cuban Missile Crisis. Recent and contemporary crises and issues are also covered.

17.428 **American Foreign Policy: Theory and Method** Van Evera [G]

Examines the causes and consequences of American foreign policy since 1898. Readings cover theories of American foreign policy, historiography of American foreign policy, central historical episodes including the two World Wars and the Cold War, case study methodology, and historical investigative methods. Open to undergraduates by permission of instructor.

17.486 **Japan and East Asian Security** Samuels [G]

Explores Japan's role in world orders, past, present and future. Focuses on Japanese conceptions of security; rearmament debates; the relationship of domestic politics to foreign policy; the impact of Japanese technological and economic transformation at home and abroad; alternative trade and security regimes; and relations with Asian neighbors, Russia, and the alliance with the United States. Seminar culminates in a two-day Japanese-centered crisis simulation, based upon scenarios developed by students.

17.462 **Innovation in Military Organizations** Posen and Sapolsky [G]

Explores the origins, rate, and impact of innovations in military organizations, doctrine and weapons. Emphasis on organization theory approaches. Comparisons with non-military and non-U.S. experience included.

17.460 **Defense Politics** Sapolsky [G]

Examines the politics affecting U.S. defense policies. Includes consideration of intra- and inter-service rivalries, civil-military relations, contractor influences, congressional oversight, peace movements in historical and contemporary perspectives, and U.S. defense politics before, during and after the Cold War.

AMERICAN DEFENSE POLITICS

17.484 **Comparative Grand Strategy and Military Doctrine** Posen [G]

A comparative study of the grand strategies and military doctrine of the great powers in Europe (Britain, France, Germany, and Russia) from the late 19th to the mid-20th century. Examines strategic developments in the years preceding and during World Wars I and II. What factors have exerted the greatest influence on national strategies? How may the quality of a grand strategy be judged? What consequences seem to follow from grand strategies of different types?

17.42 **Causes and Prevention of War**

Van Evera [U]

Examines the causes of war, with a focus on practical measures to prevent and control war. Topics covered include: causes and consequences of national misperception; military strategy and policy as cause of war; U.S. foreign policy as a cause of war and peace; and the likelihood and possible nature of another world war.

COMPARATIVE DEFENSE POLICY

INTERNATIONAL-RELATED

17.432 **Causes of War: Theory and Method**
Van Evera [G]
Examines the causes of war. Major theories of war are examined; case-study and large-n methods of testing theories of war are discussed; and the case-study method is applied to several historical cases. Cases covered include World Wars I and II.

ADVANCED OFFERINGS

17.468 **Foundation of Security Studies**
Posen [G]
Aims to develop a working knowledge of the theories and conceptual frameworks that form the intellectual basis of security studies as an academic discipline. Particular emphasis on balance of power theory, organization theory, civil-military relations, and the relationship between war and politics.

17.952 **Great Power Military Intervention**
Posen [G]
The purpose of this seminar is to examine systematically, and comparatively, great and middle power military interventions into civil wars during the 1990s. The interventions to be examined are the 1991 effort to protect the Kurds in N. Iraq; the 1993 effort to ameliorate famine in Somalia; the 1994 effort to restore the Aristide government in Haiti; the 1995 effort to end the conflict in Bosnia Herzegovina; and the 1999 NATO war to end Serbia's control of Kosovo. By way of comparison, the weak efforts made to slow or stop the 1994 genocide in Rwanda will also be examined.

17.466 **Organizational Theory and the Military**
Sapolsky [G]
This joint seminar elaborates upon classical organizational concepts and methods to better understand modern military organizations and to develop new theory. It reviews organizational theory of the 1950s and 1960s and examines its applicability to the modern military. Among the topics covered are: recruitment, socialization and retention of personnel, unit cohesion, the effect of stress on performance, innovation and experiments, civil-military relations, the function of traditions, professionalism, federal-state relations, interservice relations, and the civilianization of the military.

PROFESSIONAL EDUCATION

The MIT Security Studies Program has developed a growing interest in professional education as a way to stimulate discussion of international security problems and policy alternatives. Our initial activities have been through the MIT Professional Institute but we are now exploring web-based and traveling courses as a way to reach a larger audience. We also offer an Independent Activities Period (IAP) course taught by officers from the Armed Forces Staff College and the National Defense University on how the military carries out crisis planning in a world

Military Innovation: Technology and Strategy

This one-week course is organized by the MIT Professional Institute and taught by faculty from the MIT Security Studies Program as well as the Political Science Department. Class sessions examine the problems of threat assessment, civil/military relations, the future of defense industries, and technological changes in designing corporate/national strategies. Emphasis is placed on innovative solutions and barriers to change.

Promoting Innovation: The Dynamics of Technology and Organizations

An MIT Professional Institute course which targets public and private businesses concerned with innovation as a means of keeping pace with a fast shifting environment. The course covers such topics as the innovation process, reshaping markets, and the politics of innovation in both the private and public sectors and is taught by, among others, MIT Security Studies Program director Professor Sapolsky, and MIT Fellows.

Combating Bioterrorism: The Organizational Response

This Professional Institute course examines the various institutional and professional obstacles to cooperation in our fight against bioterrorism, and strategies to overcome them. Taught by SSP affiliates and public health experts, this course reviews historical experience and outlines policy alternatives.

Joint Crisis Action Planning Exercise

This MIT IAP course looks at how the U.S. Armed Forces support the achievement of national strategic aims in a changing strategic environment. Topics include national security structure and organization, the Joint Strategic Planning System, capabilities and limitations of the Armed Services and Special Operation forces, and crisis action procedures. The course culminates in a simulated humanitarian assistance staff planning session in which students are assigned to key positions.

SSP-AFFILIATED GRADUATE STUDENTS

SSP-AFFILIATED DEGREE RECIPIENTS

David Burbach, Ph.D., Political Science
“Diversionary Temptations: Presidential Incentives and the Political Use of Force”

Kelly Greenhill, Ph.D., Political Science
“People Pressure: Strategic Engineered Migration as an Instrument of Statecraft and the Rise of the Human Rights Regime”

Heather Gregg, Ph.D., Political Science
“The Causes of Religious Wars: Holy Nations, Sacred Spaces and Religious Revolutions”

Gregory D. Koblentz, Ph.D., Political Science
“Pathogens as Weapons: The International Security Implications of Biological Warfare”

Jennifer Lind, Ph.D., Political Science
“Apologies in International Politics”

Ryan Crow, SM, Political Science
“Strategies of Public Diplomacy: An Assessment of the Current U.S. Public Diplomacy in Light of a Directional, Elite-oriented Model and Several Historical Cases”

Michael Faerber, SM, Political Science
“Gulbuddin Hekmatyr: Afghanistan’s Persistent Insurgent”

Oliver Fritz, SM, Political Science
“Preparing for the Next Air Campaign: Organization, Leadership and the Future of the US Air Force and Navy”

Adam Horst, SM, Political Science
“Foreign Perceptions of American Casualty Sensitivity: Is Your Reputation Worth Fighting For?”

Daniel Landau, SM, Political Science
“One Man’s Wickedness: Malignant Narcissism and Major Blunders in International Relations”

Vikram Mansharamani, SM, Political Science
“The Deepwater Program: A Case Study in Organizational Transformation Inspired by the Parallel Interaction of Internal and External Core Groups”

Ph.D. CANDIDATES POST-GENERALS

Boaz Atzili	Hebrew University (BA, Int’l Relations)	Evan Liaras	Harvard University (BA, History)
Rafael Bonoan	Columbia University (BA, Int’l Security)	David Mendeloff	Pitzer College, Claremont (BA, Int’l Relations)
Danny Breznitz	Hebrew University (MA, Government) (BA, Political Science)	Olya Oliker	Kennedy School, Harvard University (MA, Int’l Affairs) Emory University (BA, Int’l Studies)
Marc DeVore	Claremont McKenna College (BA, Int’l Relations and Economics) Institut D’Etudes Politiques (MA, Political Science)	Jonathan Payne	Brigham Young Univ. (MA, Int’l Relations) (BA, Int’l Politics)
Michael Eastman	U.S. Military Academy (BS, Political Science)	Joshua Rovner	Boston College (MA, Political Science) U. Calif-San Diego (BA, Political Science)
Vanda Felbabova	Harvard University (BA, Government)	Todd Stiefler	Williams College (BA, Political Science/ Economics)
Andrea Gabbitas	University of Chicago (BA, Political Science)	Christopher Twomey	U. Calif- San Diego (MA, Pacific Int’l Affairs) (BA, Economics)
Michael George	U.S. Military Academy (BS, Political Science) Oxford University (MA, Philosophy/Politics)	Chikako Ueki	Sophia University (BA, Int’l Relations/ French)
Michael Glosny	Cornell University (BA, History/Government)		
Yinan He	Beijing University (BA, Int’l Politics) Fudan University (MA, Int’l Politics)		
Eric Heginbotham	Swarthmore College (BA, Political Science)		
Kathleen Hicks	Mount Holyoke College (BA, History and Politics) University of Maryland (MA, Public Management)		
Michal Ben-Josef Hirsch	Tel Aviv University (BA, Political Science)		

SSP-AFFILIATED GRADUATE STUDENTS

PRE-GENERALS or MASTERS STUDENTS

David Blum	Columbia University (BA, History)	Richard Kraus	U. Chicago (BA, Political Science)
Ben Friedman	Dartmouth College (BA, Government)	Jon Lindsay	Stanford Univeristy (BS, Symbolic Systems)
Brendan Green	University of Chicago (BA, Political Science)		Stanford Univeristy (MS, Computer Science)
Shirley Hung	Harvard University (BA, Government)	Austin Long	Georgia Institute of Technology (BS, Politics)
Colin Jackson	Univ. of Pennsylvania (MBA, Finance)	William Norris	Princeton University (BA, Politics)
	Johns Hopkins/SAIS (MA, Int'l Economics)	Adele Weinstock	Wellesley College (BA, Political Science)
	Princeton University (BA, Political Science)		

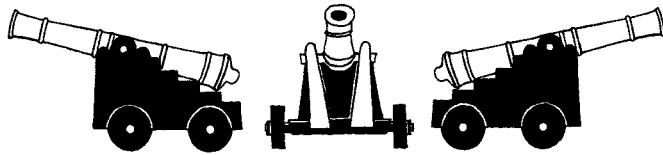


Rebels without a degree.

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