# 2AC

## \*Solvency

### Debris

#### Debris won't affect SPS

Grey 2k

Jerry, Director of AIAA, Federal News Service, Congressional Testimony, 9-7-2000, Lexis

(2) Orbital Debris. Although the SSP configurations are large, their diaphanous nature and location in geostationary or geosynchronous halo orbits imply low susceptibility to serious damage by either natural or anthropogenic orbital debris. Moreover, since all the proposed concepts employ robotic inspection and maintenance, repairs of any such damage should be able to be accomplished.

#### **Global launces inevitable---Asia space race**

Williams 2-1 – Carol J. Williams, February 1st, 2013, "Asian space race reflects sharpened U.S.-China rivalry" [www.latimes.com/news/world/worldnow/la-fg-wn-asia-space-race-global-focus-20130131,0,7945804.story](http://www.latimes.com/news/world/worldnow/la-fg-wn-asia-space-race-global-focus-20130131,0,7945804.story)

South Korea’s successful satellite launch this week served as the latest act of one-upmanship in an accelerating space race gripping Northeast Asia.¶ **Membership in the elite global space club is being pursued by wealthy countries that can afford** it as well as economic basket cases that cannot, a quest for political stature driven more by emotion and nationalism than economic promise.¶ What nations get out of creating their own space programs is a heady cocktail of national pride, technological muscle-flexing and the power to project military menace as a reminder to neighbors that they won’t back down from the region's mounting territorial disputes.¶ The intensified competition is also providing a stage for China to flaunt its growing aerospace capabilities and to underscore that manned flight and space-based surveillance will remain priorities despite U.S. efforts to bridle Beijing’s gallop into the final frontier.

#### **SPS only needs a few launches**

Salkever 9 – Alex Salkever, interviewing Cal Boerman, Solaren's Director of Energy Services, September 26th, 2009, "Plans for solar power from outer space move forward" [www.dailyfinance.com/2009/09/26/plans-for-solar-power-from-outer-space-move-forward/](http://www.dailyfinance.com/2009/09/26/plans-for-solar-power-from-outer-space-move-forward/)

How many launches will it take to the get the whole system up and orbiting?¶ We can do it with a small number of launches, only four. To get that, we had to come up with a design that was lightweight and innovative. We're still using a big rocket. Each launch will have a satellite or a piece of our system that will go up. Once we are up there, we will rely on concentrating the suns energy with mirrors to improve efficiency. **We'll have a large footprint but it's not acres of solar cells like NASA has depicted.** We have to use space-qualified photovoltaic solar cells that have a proven track record. **We'll use mylar or some other lightweight reflective material to construct mirrors** to concentrate the sun's energy.

### AO---SPS---Disease

#### **SPS is key to disaster response and soft power**

Wood 12 – Leet W.Wood is a PhD student in political science at George Mason University in Fairfax, Virginia, Bulletin of the Atomic Scientists, February 15th, 2012, ““Projecting power: The security implications of space-based solar power,” Ebscohost

The ability of the system to direct power on short notice to most points on the globe also has significance for international aid and disaster relief. In the wake of a **natural or humanitarian disaster**, power from space could be used to **keep hospitals and refugee camps operational, as well as providing electricity for water desalination** and other critical but energy-intensive processes. Operating in this mode, spacebased solar power could become a powerful tool of diplomacy rather than one of force projection in the traditional sense.

#### Disaster response prevents disease outbreaks

Aljunid et al 12 Syed, Professor of Health Economics and Senior Research Fellow at UNU International Institute for Global Health, Kouadio Koffi Isidore, Postdoctoral Fellow at United Nations University International Institute for Global Health, Taro Kamigaki, Assistant Professor, at the Department of Virology of Tohoku University Graduate School of Medicine, Karen Hammad, Australian emergency nurse and Lecturer at the School of Nursing and Midwifery, Flinders University and Hitoshi Oshitani, Professor of Virology at Tohoku University Graduate School of Medicine, "Preventing and controlling infectious diseases after natural disasters", March 13, United Nations University, unu.edu/publications/articles/preventing-and-controlling-infectious-diseases-after-natural-disasters.html#info

Beyond damaging and destroying physical infrastructure, natural disasters can lead to outbreaks of infectious disease. In this article, two UNU-IIGH researchers and colleagues review risk factors and potential infectious diseases resulting from the secondary effects of major natural disasters that occurred from 2000 to 2011, classify possible diseases, and give recommendations on prevention, control measures and primary healthcare delivery improvements.¶ Over the past few decades, the incidence and magnitude of natural disasters has grown, resulting in substantial economic damages and affecting or killing millions of people. Recent disasters have shown that even the most developed countries are vulnerable to natural disasters, such as Hurricane Katrina in the United States in 2005 and the Great Eastern Japan Earthquake and tsunami in 2011. Global population growth, poverty, land shortages and urbanization in many countries have increased the number of people living in areas prone to natural disasters and multiplied the public health impacts.¶ Natural disasters can be split in three categories: hydro-meteorological disasters, geophysical disasters and geomorphologic disasters.¶ Hydro-meteorological disasters, like floods, are the most common (40 percent) natural disasters worldwide and are widely documented. The public health consequences of flooding are disease outbreaks mostly resulting from the displacement of people into overcrowded camps and cross-contamination of water sources with faecal material and toxic chemicals. Flooding also is usually followed by the proliferation of mosquitoes, resulting in an upsurgence of mosquito-borne diseases such as malaria. Documentation of disease outbreaks and the public health after-effects of tropical cyclones (hurricanes and typhoons) and tornadoes, however, is lacking.¶ Geophysical disasters are the second-most reported type of natural disaster, and earthquakes are the majority of disasters in this category. Outbreaks of infectious diseases may be reported when earthquake disasters result in substantial population displacement into unplanned and overcrowded shelters, with limited access to food and safe water. Disease outbreaks may also result from the destruction of water/sanitation systems and the degradation of sanitary conditions directly caused by the earthquake. Tsunamis are commonly associated with earthquakes, but can also be caused by powerful volcanic eruptions or underwater landslides. Although classified as geophysical disasters, they have a similar clinical and threat profile (water-related consequences) to that of tropical cyclones (e.g., typhoon or hurricane).¶ Geomorphologic disasters, such as avalanches and landslides, also are associated with infectious disease transmissions and outbreaks, but documentation is generally lacking.¶ After a natural disaster¶ The overwhelming majority of deaths immediately after a natural disaster are directly associated with blunt trauma, crush-related injuries and burn injuries. The risk of infectious disease outbreaks in the aftermath of natural disasters has usually been overemphasized by health officials and the media, leading to panic, confusion and sometimes to unnecessary public health activities.¶ The prolonged health impact of natural disasters on a community may be the consequence of the collapse of health facilities and healthcare systems, the disruption of surveillance and health programmes (immunization and vector control programmes), the limitation or destruction of farming activities (scarcity of food/food insecurity), or the interruption of ongoing treatments and use of unprescribed medications.¶ The risk factors for increased infectious diseases transmission and outbreaks are mainly associated with the after-effects of the disasters rather than to the primary disaster itself or to the corpses of those killed. These after-effects include displacement of populations (internally displaced persons and refugees), environmental changes and increased vector breeding sites. Unplanned and overcrowded shelters, poor water and sanitation conditions, poor nutritional status or insufficient personal hygiene are often the case. Consequently, there are low levels of immunity to vaccine-preventable diseases, or insufficient vaccination coverage and limited access to health care services.¶ Phases of outbreak and classification of infectious disease¶ Infectious disease transmission or outbreaks may be seen days, weeks or even months after the onset of the disaster. Three clinical phases of natural disasters summarize the chronological public health effects on injured people and survivors:¶ Phase (1), the impact phase (lasting up to to 4 days), is usually the period when victims are extricated and initial treatment of disaster-related injuries is provided.¶ Phase (2), the post-impact phase (4 days to 4 weeks), is the period when the first waves of infectious diseases (air-borne, food-borne, and/or water-borne infections) might emerge.¶ Phase (3), the recovery phase (after 4 weeks), is the period when symptoms of victims who have contracted infections with long incubation periods or those with latent-type infections may become clinically apparent. During this period, infectious diseases that are already endemic in the area, as well as newly imported ones among the affected community, may grow into an epidemic.¶ It is common to see the international community, NGOs, volunteers, experts and the media leaving a disaster-affected zone usually within three months, when in reality basic sanitation facilities and access to basic hygiene may still be unavailable or worsen due to the economic burden of the disasters.¶ Although it is not possible to predict with accuracy which diseases will occur following certain types of disasters, diseases can be distinguished as either water-borne, air-borne/droplet or vector-borne diseases, and contamination from wounded injuries.¶ Diarrhoeal diseases¶ The most documented and commonly occurring diseases are water-borne diseases (diarrhoeal diseases and Leptospirosis). Diarrhoeal diseases cause over 40 percent of the deaths in disaster and refugee camp settings. Epidemics among victims are commonly related to polluted water sources (faecal contamination), or contamination of water during transportation and storage. Outbreaks have also been related to shared water containers and cooking pots, scarcity of soap and contaminated food, as well as pre-existing poor sanitary infrastructures, water supply and sewerage systems.

#### Extinction

**Torrey and Yolken 5** E. Fuller and Robert H, Directors Stanley Medical Research Institute, 2005, Beasts of the Earth: Animals, Humans and Disease, pp. 5-6

The outcome of this marriage, however, is not as clearly defined as it was once thought to be. For many years, it was believed that microbes and human slowly learn to live with each other as microbes evolve toward a benign coexistence wit their hosts. Thus, the bacterium that causes syphilis was thought to be extremely virulent when it initially spread among humans in the sixteenth century, then to have slowly become less virulent over the following three centuries. This reassuring view of microbial history has recently been challenged by Paul Ewald and others, who have questioned whether microbes do necessarily evolve toward long-term accommodation with their hosts. Under certain circumstances, Ewald argues, “Natural selection may…favor the evolution of extreme harmfulness if the exploitation that damages the host [i.e. disease] enhances the ability of the harmful variant to compete with a more benign pathogen.” The outcome of such a “marriage” may thus be the murder of one spouse by the other. In eschatological terms, this view argues that a microbe such as HIV or SARS virus may be truly capable of **eradicating the human race**.

## \*United States T

#### We meet---we procure energy produced IN the US---we only incentivize what is topical

#### We meet---rectennas would be in the US

Snead 8 – James Michael Snead, senior member of the American Institute of Aeronautics and Astronautics, past chair of the Space Logistics Technical Committee, published in Aerospace America, the Air Force Air and Space Power Journal, the International Society of Logistics’ Logistics Spectrum magazine, the Journal of AstroPolitics, and the online Space Review, graduate of the Air Force Institute of Technology with Master's Degrees in Aerospace Engineering, November 19th, 2008, “The End of Easy Energy and What to Do About It,” National Space Society, <http://mikesnead.net/resources/spacefaring/white_paper_the_end_of_easy_energy_and_what_to_do_about_it.pdf>Possible rectenna locations in the United States 2.45/5.8 GHz SSP During the initial SSP studies, Rice University conducted a preliminary assessment of the continental United States to determine where the rectennas could be located. The initial assessment concluded that about 40% of the continental United States could be used to locate rectennas. Fifteen exclusion variables were used: inland waters, metropolitan areas, other populated areas, marshlands, perennially flooded lands, military reservations, waterways, designated habitats of endangered species, topography unacceptable, atomic energy commission lands, and lands excluded by three dimensions of electromagnetic compatibility problems. Further refinement of these criteria reduced the initial 40% estimate to about 17% or about 530,000 sq. mi.209 Noting that a rectangular area enclosing the elliptical rectenna and safety zone comprises about 100 sq. mi.,210 the suitable land in the United States could, therefore, support over **5,000 rectennas,** substantially greater than the approximately 250 SSP platforms that would likely be used.211

#### Counter-interpretation---energy production is conversion to electricity

PNL 78, Report Commissioned by the DOE Pacific Northwestern Laboratories "An Analysis of Federal Incentives Used to Stimulate Energy Production" March 1978 www.osti.gov/bridge/servlets/purl/7059750-iKeQE4/7059750.pdf

Energy production is defined as the transformation of natural resources into commonly used forms of energy such as heat, light, and electricity. By this definition, the shining of the sun or the running of a river are not examples of energy production, but the installation of solar panels or the construction of a hydroelectric dam are. Energy consumption is defined as the use of one of these common, "manufactured" forms of energy. Under this definition sunbathing is not energy consumption, but heating water by means of a solar panel is. In both definitions, the crucial ingredient is the application of technology and resources to change a natural resource into a useful energy form.

#### **This takes place at rectennas on earth**

URSI 5 – International Union of Radio Science (URSI), November 2005, "Supporting Document for the URSI White Paper on Solar Power Satellite Systems," [www.ss.ncu.edu.tw/~ursi/record/WP\_SPS\_supdoc\_051129.pdf](http://www.ss.ncu.edu.tw/~ursi/record/WP_SPS_supdoc_051129.pdf)

The rectenna is extremely efficient in the energy conversion. The 82% of **the energy received** at the ground **is converted to usable electricity.** The microwave beam averages 8% of the power of full sunlight. The maximum energy rate at the center of the radio beam is ¼ of the maximum sunlight energy rate, as measured at high noon in the desert. Thus the total SPS energy arriving at the rectenna site would be a fraction of the solar energy that arrives at each square meter of the site. However, unlike the sunlight, most of this SPS energy will be recoverable, and will be available 24 hours per day. This results in an average output of almost 1500 Wh/day/m2 for a rectenna at the equator 19 compared to only 600 Wh/day/m2 for terrestrial photovoltaics.5

#### **SPS collects solar, rectennas convert it to electricity**

Powersat 12 – Powersat Corporation, 2012, "Energy market drivers behind Space Solar Power (SSP)" [www.powersat.com](http://www.powersat.com)

Space-based solar power is a method of collecting solar energy so that it can be distributed for use all over the earth. With this amazing technology, space-based solar power is the future of power generation.¶ ¶ Benefits of Space-based Solar Power¶ ¶ The first benefit of solar power satellites or powersats is the fact that space-based solar power collection is virtually unaffected by the day and night cycles of the sun, with only minor effects from orbital eclipse. On the earth’s surface, solar panels can only collect solar energy for a maximum of 9 hours per day and when there is cloud cover this number is even lower. Space-based solar power can be collected 24 hours per day for the majority of the year and this means at least 5 times more space-based solar power can be collected than that collected by solar panels on the surface. That’s 5:1 in favour of space-based solar power. In areas where it is frequently cloudy, this number jumps to 25:1.¶ **Space-based solar power is a method of using solar power satellites to collect solar energy so that it can be distributed for use all over the earth.** With this amazing technology, space-based solar power is the future of power generation.¶ What else makes space-based solar power a viable energy source for the future? It is fast. The energy can be transmitted from the solar power satellites to the receiving stations and then between receiving stations in just seconds. This is all accomplished via a wireless transfer of the energy and the result is dispatchable, base-load power, which can then power homes and businesses as effectively as the more traditional forms of power generation.¶ More FAQs & Diagram | Energy market drivers for Space Solar Power (SSP)¶ ¶ Space-based Solar Power –¶ The Power of the Future¶ Space Solar Power (Powersat)¶ ¶ Space solar power (SSP) is an innovative, reliable, technologically advanced way of collecting and distributing solar power from space down to earth. (more about powersats or solar power satellites)¶ ¶ Space Solar Power (SSP) is clean and green energy at a low cost with minimal environmental impact.¶ PowerSat Corporation is a pioneer in generating safe, clean, reliable energy from space. **Solar energy is captured via satellites (known as powersats) and transmitted wirelessly to receiving stations at various points around the** globe. Thousands of megawatts can be harnessed and shifted between receiving stations thousands of miles from each other - all in a matter of seconds. (More about PowerSat)¶ What is Space Solar Power?¶ A SSP system is comprised of a solar power satellite, or powersat, which is a satellite made up of a number of modules outfitted with light weight photovoltaic solar panels.¶ (More about space solar power)¶ Energy across geographic regions. This advantage means that powersats can provide continuous, baseload power in areas where traditional energy sources are hard to site, and in areas where demand is significant.

#### Their interpretation is AFF evidence---says USABLE energy---that is ONLY in the United States

#### **Airspace above the US is US territory---outer space is everyone’s territory**

Achilleas 3 – Phillippe Achilleas, AND\*\*\* Laurent Crapart, AND\*\*\* Elisabeth Marescaux, Institu du Droit de l'Espace et des Telecommunications, Universite Paris, 2003, "Legal Aspects of Solar Power Satellites"www.esa.int/gsp/ACT/doc/POW/ACT-GSP-SPS-0310 Legal Aspects of SPS - FINAL REPORT s.pdf

According to the various technical/legal documents that were taken as reference for the needs of this study, most of SPS concepts are expected to transmit energy, via either microwaves beam or laser beam, to Earth. This will notably result in the transmission of energy through airspace. According to Article 1 of the 1944 Chicago Convention on international civil aviation7, "Every State has complete and exclusive sovereignty over the airspace above its territory". To that extent, the question whether power transmission through airspace could violate the sovereign rights of the State concerned might appear. This issue shall nevertheless be avoided since SPS constitute a space activity, governed by the principle of **freedom of use of outer space** and falling under the provisions of international space law. The fact that SPS signals will pass through airspace shall therefore not be considered as a reason for denying space law applicability to SPS. While the debate existing around space law sphere of applicability is not closed yet8, it is clear that SPS shall be regarded as subject to space law to the extent that they can be qualified as a use of outer space. Air law applicability shall consequently be rejected, and space law preferably applied.

#### Holistic energy education---they exclude wind and solar affs---they are naturally produced raw material---key to real world advocacy

#### Limits---there’s no uniqueness---SMRs and fusion dominate

#### Reasonability---competing interpretations are a race to the bottom to arbitrary exclude the aff---we only allow one extra aff

## \*States CP

### Perm

#### Perm do both---shields the link to politics, gets double solvency

#### Perm do the counterplan---USFG could theoretically be the states

#### Perm have the DOD obtain electricity from the states

### Perm---Federalism

#### **Perm solves better---it’s key to cooperative energy federalism**

Kay 12 – David Kay, Cornell Community and Regional Development Institute, July 2012, "Energy Federalism: Who Decides?" cardi.cornell.edu/cals/devsoc/outreach/cardi/programs/loader.cfm?csModule=security/getfile&PageID=1071714

Lastly, “interactive federalism” (also “cooperative”, “dynamic” and “marble cake” federalism) starts with a fundamental **empirical claims to realism and pragmatism** - that national, state, and local governments in most complex issue areas will inevitably engage overlapping rather than distinct authorities. In Sovocool’s summary, this theory claims **five advantages over the others: (i) plurality, (ii) dialogue, (iii) redundancy, (iv) accountability, and (v) economies of scale.**¶ The idea of **plurality best reflects, perhaps, the possibilities associated with diversity of perspectives and, most optimistically, even teamwork.** Resonances of negotiation and collaborative decision making theory are found in the idea that problems can best be solved, value created, and net benefits maximized through an exploratory process which optimizes constructively facilitated interactions of entities with different perspectives and points of view. Cross jurisdictional dialogue is a complementary, beneficial mechanism that can foster learning while leading to coordination, innovation, participation, and partnership. Redundancy in authority is a kind of risk management insurance policy that can create a “regulatory safety net”. Like most insurance policies, it would presumably incur some costs while reducing the risk of regulatory failure. Accountability benefits are posited to exist in the co-dependency of different authorities, suggesting that the vigilance of each might well increase with shared responsibility, as does the difficulty of independent authorities being captured by the same special interest. Finally, this shared responsibility retains the benefits of economies of scale associated with consistent centralized standards while retaining room for decentralized experimentation with approaches or standards that are required to exceed baseline or minimum criteria. ¶ Sovocool considers the weaknesses as well as asserted strengths of each approach in evaluating two particular energy/environmental policies: renewable portfolio standards that mandate the purchase of renewable and greenhouse gas emissions quotas. He concludes that interactive or marble cake federalism, with minimum standards set by the federal government, is best suited to deal with these energy issues. Whether he would come to the same conclusion applying these criteria to different energy case studies remains an interesting question.xxiii However, it is the importance of applying the criteria for evaluating strengths and weaknesses that I wish to highlight here. Sovocool’s taxonomy of costs and benefits may not be exhaustivexxiv, but his work at best issues a challenge for others to argue for the inclusion of salient alternative principles.

### Perm---Solvency

#### **States alone fail---they need federal backing too**

Wiser et al. 10 – Dr. Ryan H. Wiser is a Staff Scientist and Deputy Group Leader in the Electricity Markets and Policy Group at Lawrence Berkeley National Laboratory. Ryan holds a B.S. in Civil Engineering from Stanford University and an M.S. and Ph.D. in Energy and Resources from the University of California, Berkeley. AND\*\*\* Eric Martinot, senior research director at the Institute for Sustainable Energy Policies, AND\*\*\* Jan Hamrin received her Ph.D. in Ecology, with emphasis on public policy evaluation of environmental and energy programs, from the University of California, Davis. She also holds Masters degrees in Public Administration from U.C. Davis as well as a B.S. from the University of New Mexico. Shespent 30 years promoting renewable energy through research, policy formulation, and the development of consumer programs. She founded the non-profit Center for Resource Solutions. July 16, 2010, "Renewable energy policies and markets in the United States," www.martinot.info/Martinot\_et\_al\_CRS.pdf

Third, US experience shows that state-level policies will likely be crucial in ensuring the expansion of renewable energy in the United States over the coming years, but that complimentary federal policies are also important. As the PURPA era gave way to stagnation in the early 1990s, electric power restructuring led to a boom in state policy innovations to support renewable energy. Those innovations, including RPS, public-benefit funds, net metering laws, voluntary green power markets, and a variety of financial incentives and regulatory provisions, have been gaining momentum since 1998. They now provide the bulk of encouragement for renewable energy in the United States, in combination with attractive federal tax incentives. Overall, however, the impact of these state-level actions is still modest relative to the potential impact of more aggressive federal policy. If anything, US experience illustrates the risk of relying too heavily on state-level support alone.¶ Fourth, for renewables to develop smoothly and efficiently, they need clear and equitable power transmission system rules and cost allocation methods. It is important to be clear about how transmission upgrade costs will be allocated and to incorporate renewable resource development into transmission planning. The transmission problems in the United States stem from the fact that the existing transmission system was designed to serve traditional, central station generation. Rules for who pays for what transmission costs were vague or non-existent and were dominated by the idea that any and all transmission upgrades required by renewable facilities had to be paid by those facilities. Transmission system planning that anticipates renewable resource development is just now being introduced and accepted. ¶ Although government R&D and other technology development efforts are important, the history of the United States shows that renewable energy technologies and industries have developed fastest when policies have provided clear, consistent, and strong incentives for commercial market demand to grow. The PURPA era still stands as the most successful period of renewable energy development in the US, due to a confluence of factors and the strong support provided by the feed-in type of policy. In the future, state-level renewables portfolios standards will be the key to large-scale expansion, and some early RPS successes were being achieved. But design pitfalls have plagued some RPS programs and future design and implementation will need to proceed carefully. And even more aggressive policy action will be needed, comparable to **aggressive policies in other countries, at both state and federal levels, in order for US markets to follow global trends.**

### 50 State Fiat

#### States is a voting issue---kills decision-making---no one chooses between the fed and states---kills education---utopian and multi-actor fiat creates contrived debates not in the literature---no solvency advocate is an independent voting issue

### No Solvency

#### State funding relies on bonds---perceived as unreliable---causes uncertainty

Stevens 11 (Paul, PRESIDENT AND CEO OF INVESTMENT COMPANY INSTITUTE, “OVERSIGHT OF THE MUTUAL FUND INDUSTRY: ENSURING MARKET STABILITY

AND INVESTOR CONFIDENCE”, June 24, BEFORE THE SUBCOMMITTEE ON CAPITAL MARKETS AND GOVERNMENT SPONSORED ENTERPRISES COMMITTEE ON FINANCIAL SERVICES UNITED STATES HOUSE OF REPRESENTATIVES, http://financialservices.house.gov/uploadedfiles/062411stevens.pdf)¶ The tax-exempt municipal securities market provides an important mechanism for the almost 90,000 units of state and local government to access capital primarily for infrastructure needs including schools, streets and highways, bridges, hospitals, public housing, sewer and water systems, power utilities, and various public projects. 145 The tax treatment of municipal securities in Section 103 of the Internal Revenue Code, which states that the interest on municipal bonds is exempt from federal income tax, serves to bolster demand for municipal securities. For many of these small government units, the municipal securities markets are the only way in which they can truly raise needed funding for their operations. Funds are a critical part of this market. At the end of 2010, individual investors held 33 percent of the $2.9 trillion municipal securities market through funds and another 37 percent directly. 146¶ Funds provide an efficient and cost-effective means for individual investors to obtain municipal securities. With approximately 1.2 million active municipal bonds, 147 however, the municipal securities markets are complex. Investors will naturally gravitate toward issues for which they have ready access to the detailed, consistent, and timely disclosure necessary to informed investment decisions. Unfortunately, under the current municipal securities regulatory regime, disclosure too often is limited, non-standardized, and often stale. 148¶ For these reasons, we repeatedly have called for reform of the municipal securities disclosure regime. 149 ICI consistently has supported SEC efforts to enhance the disclosure of information regarding municipal securities by amending Rule 15c2-12 under the Securities Exchange Act of 1934, which establishes requirements on the initial disclosure, periodic disclosure, and secondary market reporting of municipal securities. 151 The Rule requires dealers and underwriters, through contract, to obtain issuer representations that certain disclosures may be made. Since adoption, time has shown that the attenuated nature of this disclosure system is extremely difficult to enforce. 152¶ A better disclosure regime should be devised for this important market. Municipal securities now trade on a nationwide scale; their trading volume has increased substantially; and the market is composed of many complex instruments. Individual investors increasingly must evaluate not only default risk, but also market price and the corresponding value of a bond. The credit environment for municipal securities has become, and likely will continue to be, more challenging in the coming years, primarily in small or unrated issues. ¶ Until 2008, the need for better disclosure was tempered by the fact that most municipal securities were insured. It was presumed that in the absence of publicly available information, a bond insurer had ready access to the municipal issuer’s most recent financial statements and had performed necessary due diligence. Now, however, a smaller segment of the municipal securities market has bond insurance because of the skepticism of investors about the ability of the insurance industry to conduct quality risk assessments following the 2008 financial crisis. Disclosure gaps have been compounded by the adoption of a single global rating scale, which rates corporate and municipal securities on the same scale, and reduces the granularity of available information on municipal securities. Headline risk and the cyclical nature of retail trading further exacerbate the problem. Industry initiatives have made some headway for disclosure improvements in certain categories of municipal securities but these too are limited and voluntary. 153

#### **Federal government certainty is key to renewables and clean tech leadership**

Harder 12 – Amy Harder, energy and environment reporter, National Journal, May 14th, 2012, "Boom and Bust: Renewable Energy's Future?" energy.nationaljournal.com/2012/05/boom-and-bust-renewable-energy.php

Could the recent boom in U.S. renewable energy go bust?¶ That's what a recent report warns might happen given the state of current policy. **Without a national energy policy providing certainty for renewable sources** like wind and solar, the nascent industries could go bust after a few strong years as beneficiaries of the Obama administration's $90-billion injection of stimulus, suggests the report, conducted by researchers at the Brookings Institution and the World Resources and Breakthrough Institutes.¶ Indeed, **renewable-energy policy at the federal level is lagging**. The wind industry's production tax credit is set to expire at year's end, and a popular grant program for all types of renewable energy expired last year. Cognizant of this, President Obama last week called on Congress to renew the wind industry's incentive and a manufacturing tax credit created as part of the stimulus. But lawmakers don't seem poised to tackle comprehensive policy providing long-term incentives for renewable energy anytime soon, and any action on temporary tax credits probably won't happen until year's end.¶ And another recent report by the centrist Democratic think tank Third Way warns that without a national energy policy, the U.S. will lose any edge it has in the renewable-energy space to other countries like China and India that provide more stable federal support.

#### The Fed is key to investment

Ben-Moshe et al 10 Sony, attorney in the Project Finance Practice Group in the San Diego office of Latham & Watkins LLP, Jason J. Crowell, attorney in the Project Finance Practice Group in the San Diego office of Latham & Watkins LLP, Kelley M. Gale, Finance Department Chair of Latham & Watkins‘ San Diego office and serves as global Co-Chair for the firm‘s Climate Change and Cleantech Practice Groups, Breton A. Peace, Brett P. Rosenblatt, and Kelly D. Thomason, Energy Law Journal, Vol. 30:497, “Financing The Nuclear Renaissance: The Benefits And Potential Pitfalls Of Federal & State Government Subsidies And The Future Of Nuclear Power In California”, www.felj.org/docs/elj302/19gale-crowell-and-peace.pdf

A primary reason why the financing of a nuclear power project may resemble a Mega-Financing is the sheer magnitude of capital required to finance project construction. 30 Absent proper government incentives, the **required capital may not be obtainable** at optimal pricing for reasons aside from the intercreditor issues noted above. Lending institutions often have caps on the amount of capital that can be exposed to both a particular project and a specific industry sector. In addition, regulatory and construction risks at any given project will limit any particular investor‘s desire to put too much money into any one project. As a practical reality, this desire to diversify against risk and the sheer magnitude of debt capital needed for any project may limit the amount of debt a project sponsor can raise in the commercial bank and capital markets. Government issued loan guarantees present one way to potentially decrease perceived risk and thereby increase the amount of money an investor is willing to put into a project and bring to the table investors who might otherwise not be interested (for example, certain institutional investors may only invest in instruments backed by the full faith and credit of the United States Government). To optimize nuclear development in the United States, the specifics of the government support programs should be adjusted in ways necessary to reach the point whereupon lending institutions can invest sufficient capital for nuclear construction as part of a well-balanced portfolio of assets. Specific adjustments that may help reach this point are discussed in Section II.D.2 below.¶ Nuclear power project financing also may more closely resemble a MegaFinancing than a traditional project financing of a renewable power project due to the unusual risks presented by construction of a nuclear reactor. One of the key issues involved in many Mega-Financings (particularly cross-border financings) is political risk and uncertainty. Natural gas liquefaction projects, for example, often take place in less developed countries in South America and West Africa, where political risk factors abound, including currency conversion risk, sovereign risk and environmental issues presented by investing in the global market. ―No matter how detailed a contract, a new political regime could change the rules and the conditions under which you made your investment virtually overnight.‖ 31¶ Similar to this political risk, investors in new domestic nuclear reactors will likely face substantial regulatory and permitting risks, such as the risk of litigation by residents or environmentalists desiring to thwart any large scale development of new reactors in the United States and the risk that a largely untested regulatory approval process may not operate as anticipated, and those challenges can result in significant delays in construction of a nuclear power project. Although they are different in kind, the substance of sovereign and other risks facing large overseas infrastructure projects is similar in the sense that worst case scenarios of delay or inability to make commercial use of the projects and the magnitude of the potential losses are roughly equivalent. As a risk mitigation measure in the case of financings for natural gas liquefaction facilities and other large overseas infrastructure projects, the Export-Import Bank of the United States may approve loan guarantees and offer credit enhancements and/or direct loans to support the sale of United States exports to emerging markets throughout the world. Its loan guarantees to support the construction of large overseas infrastructure projects increase the comfort of private institutional investors because these investors believe there is a substantially lower risk that an overseas political regime will change the rules in a manner adverse to creditors if the United States government is one of those creditors. 32 In a similar fashion, regulatory risk insurance and loan guarantees provided by the federal government should encourage private financing of domestic nuclear power projects because the government providing the guarantees also controls many of the risk factors which could give rise to regulatory delays in commencing commercial operation of a new nuclear project. ¶ Further, in the nuclear power industry, the federal government is reviewing development applications and reactor designs, and is equipped with a team of experts in nuclear technologies, so that if the federal government has skin in the game, so to speak, private lenders may take additional comfort that the government has performed a certain level of due diligence on a particular project and determined that there are no major flaws from its vantage point. Section II.D.3 below discusses the risks covered by federally provided regulatory risk insurance and the ways in which it can be adapted to best encourage private sector financing for nuclear energy.

### Aerospace AO

#### Federal support for SPS is key to revitalize the aerospace sector

Mankins, President of SPA and Former NASA Scientist, 9 (John, Preeminent Global Expert on SSP, SPA = Space Power Association, President of ARTEMIS Innovation Management Solutions, Worked @ NASA for 25 Years, “To boldly go: the urgent need for a revitalized investment in space technology,” 5-18, <http://www.thespacereview.com/article/1377/1>)

Unfortunately, the US investment in advanced research and technology for space exploration and development has been reduced to historically low levels, and concurrently has been focused more narrowly than ever before on immediate system designs and development projects. In many respects, the current budget is little more than an “advanced development” program with minimal opportunity for innovation and essentially no possibility that an invention arising from civil space research and technology programs could influence system design decisions, inform budget estimates or inspire new, more ambitious space program goals. The challenge today Space has never been more important to our national security than it is today. The opportunities for truly profound scientific discoveries through space exploration have never been greater. And the pace of international development of new capabilities for space operations has never been faster. Federal budgets for advanced research and technology to enable future space exploration and development have been reduced in scope and focused on near-term system developments to the point that US preeminence in space activities is in question. NASA’s advanced space research and technology budget was over $2 billion in fiscal year (FY) 2005, with a focus on objectives five to ten years in the future and with the purpose of informing program and design decisions, while retiring both technical and budget risks of those future programs. The President’s FY 2007 budget for NASA exploration technology declined to less than $700 million, and of that only a small fraction (perhaps less than $200 million) still addressed longer-term objectives. The corresponding budgets in 2008 and 2009 were further reduced. Little to none of the remaining investment deals with enabling fundamentally new goals or objectives, or dramatically reducing expected costs. With these funding levels and program goals, it is unlikely that the US will maintain leadership in space exploration beyond the current generation of projects—all of which are founded on the “seed corn” harvested from past investments in innovative new space capabilities. Further, declining support for space research and technology is creating an innovation vacuum in the US as small business opportunities evaporate, and funding for universities and students vanishes. This trend jeopardizes America’s long-term leadership in space exploration and development, and damages our ability to achieve important national security goals. History Since the conclusion of the Apollo program in the early 1970s, the US space program has experienced varying levels of support from national leaders in the White House and the US Congress. Moreover, during most of that time human exploration beyond low Earth orbit has been “off the agenda”, with the exception of the short-lived Space Exploration Initiative (SEI) of 1989–1993. During the same period, US robotic exploration has had a number of tremendous successes, primarily involving the outer planets (e.g., Voyager spacecraft, Galileo, and more recently, Cassini), but also the inner solar system (e.g., Viking on Mars, Magellan at Venus), and the recent series of Mars missions (e.g., Pathfinder/Sojourner, Mars Observer, Spirit and Opportunity). However, these programs have tended to reflect one-of-a-kind successes with a minimal number of spacecraft and missions using common systems or technologies, resulting in continuing very high costs. Various attempts to create a foundation of common technologies and modular spacecraft have failed. Similarly, attempts to bridge the gap between robotic mission systems technologies and human space flight technologies (e.g., “Platform Z” from the early Space Station Freedom program) have failed. The most notable successes in this vein arose from the in-space assembly and spacecraft servicing capabilities of the Space Shuttle, first in the early 1980s with the Solar Max servicing mission, then with the series of hugely successful Hubble Space Telescope servicing missions, and finally with the assembly of the International Space Station. However, these achievements were far more the exception than the rule. For the most part human and robotic exploration systems and technologies became increasingly isolated beginning in the 1970s. More recently Following the Columbia tragedy in 2003, the direction of the US space program was again the subject of intense discussion (led by the White House) and including various agencies and organizations. The result, announced in January 2004, was the “Vision for Space Exploration” (VSE). The VSE as formulated originally was much more than a new justification for human space flight. Rather, the Vision addressed the full range of human and robotic exploration, as well as a revitalization of advanced space research and technology with far-reaching implications. The original VSE strategy placed strong emphasis on studies, research, and technology developments that would in time inform decisions regarding architectures and systems for (1) a Space Shuttle replacement; (2) annual robotic technology missions to the Moon; (3) a human return to the Moon to establish a permanent presence; (4) new space observatories to explore the universe beyond our solar system; (5) a campaign of robotic missions to Mars and beyond; and more. With current funding levels and program goals, it is unlikely that the US will maintain leadership in space exploration beyond the current generation of projects—all of which are founded on the “seed corn” harvested from past investments in innovative new space capabilities. However, in 2005 NASA shifted to a dramatically different approach to exploration and related technology developments with the results of the Exploration Systems Architecture Study. ESAS results placed exclusive emphasis on a US human lunar return and in an attempt to accelerate the first operational capability for the “crew exploration vehicle”—a capsule-based Space Shuttle replacement. To achieve this focus, numerous strategic changes were necessary. References to other aspects of space science and exploration were dropped, as was integrated planning of human and robotic exploration missions. For example, the initially planned annual campaign of robotic technology missions to the Moon was reduced to a single orbiter and one lunar lander mission, and these retained little or no role in guiding design decisions for human lunar systems. Also, to avoid technology-related risks, a range of lifecycle cost-related architectural options were eliminated from consideration, including in-space assembly of lunar transportation systems, in-space fueling and servicing, reusable lunar transportation systems, and others. The result was a family of systems for low Earth orbit access and a return to the Moon that involved a re-sized, Apollo-like architectural approach, with a heavy-lift launch vehicle and expendable transportation system elements. Significant shifts in agency budgets followed these new strategic directions, including drastic reductions in advanced space research and technology development, and a redefinition of remaining investments as “technology development”, focused on already-made design decisions. This shift in strategy was epitomized by NASA’s elimination of the NASA Institute of Advanced Concepts (NIAC) on the grounds of budget constraints, despite that fact that NIAC represented less than one third of one percent of the agency’s annual budget. The real point was that NIAC no longer had a legitimate role given NASA’s new approach to innovation: low engineering risk designs, and modest technology developments focused on those designs. Unfortunately, the elimination of design-to-cost and investments in longer-term innovation have come with a price. By recent estimates, the transportation-related cost of a single human mission to the Moon using the present, low-technology design solution will exceed $5 billion; transportation for two crewed lunar missions per year would require approximately 60% of NASA’s annual budget. Moreover, in-house agency subject matter expertise has been severely affected, as has the Agency’s contribution to US space technology leadership. Overall, the ambitious goals that were articulated by the White House in 2004 have been pushed into the indefinite future. A permanent human outpost of the Moon, development of lunar resources, deployment of large space observatories, and ambitious missions to the outer planets: all of these have been pushed out into the future by 20 years or more. Moreover, it is difficult to envision how such goals could ever be achieved using current systems concepts and concomitant prohibitively high costs. Only new systems concepts, enabled by focused space research and technology developments, can change this assessment. At the same time, real progress continues to be made by the international space community, grounded in steady investments in new technologies and systems—and resulting in regular accomplishments in space systems. The international flotilla of robotic space missions to the Moon illustrates this point: the US contribution of a single orbiter and a future lander are largely indistinguishable from the missions of other countries. Without an adequate strategy for, and more robust investment in, advanced space research and technology, long-term US preeminence in space exploration and development is doubtful. The Office of Naval Research (ONR) of the US Department of Defense (DOD) provides a useful example for how long-term but focused government research and technology advancement may be pursued. In particular, the ONR uses four complementary program strategies: a foundation of in-house subject matter expertise, sustained basic research and technology investments, development and demonstration of prototypes, and a focus on future capabilities. The concept of “Future Naval Capabilities” (FNCs) is used by the ONR to focus advanced research and technology (R&T) efforts around novel systems and concepts of operations. FNCs allow a range of R&T investments to be coordinated around specific new capabilities—even though the details of those systems designs have not yet been finalized, nor development programs approved. Also, the ONR uses the concept of “Innovative Naval Prototypes” (INPs) to orchestrate a range of ongoing R&T and draw the results of those efforts into nearer-term demonstrations of working prototypes and test-beds. INPs are characterized by ambitious technical objectives, and their potential to truly transform future naval operations. In addition, the ONR has preserved for over 60 years a commitment to long lead, discipline-oriented research and technology development. These investments have been responsible for advances in areas as diverse as materials, electronics, communications, power, and others—but all leading toward naval preeminence. And finally, DOD investments have maintained a foundation of in-house subject matter expertise at the Naval Research Laboratory (NRL) and other installations. Over the years, these in-house experts have enabled more effective technology investment decisions and, working with civilian and uniformed leaders better system acquisition decisions. Novel technologies and systems concepts must be matured and validated before decisions are made regarding the detailed designs of future space systems. There are a variety of business models that might be considered for space research and technology development. However, the strategies used by the ONR for its investments seem especially appropriate to the long-term character of the challenge of space exploration and development. For civil space exploration and development, these would be: (1) maintenance of in-house NASA subject matter expertise in relevant technologies; (2) sustained, discipline-oriented investment in basic research and technology at NASA centers, universities, and small businesses; (3) development and demonstration of transformational systems prototypes in partnerships involving NASA, major industry and others; and (4) a sustained focus on future space capabilities. And the results of these investments must be harvested before designs are finalized and system acquisition programs started. Assessment It is hardly consistent with the aspirations of Americans to “go where everyone has been before…” However, it is fantasy to suppose that the civil space program can affordably accomplish ambitious goals and objectives in space using systems concepts and technologies of the last century. Novel technologies and systems concepts must be matured and validated before decisions are made regarding the detailed designs of future space systems. In fact, numerous reports over a period of decades have established the criticality of a robust and focused investment in advanced research and technology, including the findings of several National Commissions, committees of the National Academy of Sciences, and others. Stable, robust, long-term federal investments in advanced research and technology for future civil space capabilities—funded at a level sufficient to assure US preeminence in space science, exploration, and utilization—are critical if we are to meet the challenges of this century: achieving ambitious goals in science and exploration, delivering on the promise of space to contribute to a strong national economy, maintaining a skilled aerospace workforce, and providing the foundations for future national security. It is time for the Congress and the White House—recognizing the challenges facing this nation’s space sector—to articulate and implement a strategy to revitalize advanced space research and technology and to make a sustained commitment to the implementation of that strategy. The recently chartered national study on the future of human space exploration, chaired by Norm Augustine, should take up this task. What should be done? The following actions are needed now: The federal government should revitalize its investment to invent and develop innovative new technologies for space science, exploration, and development, consistent with assuring US preeminence in space activities and industry’s ability to adopt these innovations for application in future space missions and markets. A balanced distribution should be created in the allocation of revitalized advanced space research and technology funding among more basic research efforts, technology maturation, and demonstrations of new technologies. These investments should be guided by the goal of creating ambitious new “future space capabilities”—well-enough defined to inform technology investments, but flexible enough to allow the results of those investments to influence designs, reduce costs, and enable new and more ambitious science goals. In establishing these investments, NASA must seek and embrace inputs from outside the agency (including other agencies, industry, academia) to develop, review, and recommend NASA advanced space research and technology plans, programs, and strategies. NASA in-house space research and technology (performed by engineers and technical specialists) should be restored, in balance with increased external research (by industry and academia). Funding for university research should also be targeted toward producing graduates with advanced degrees to support the follow-on work that will be undertaken by industry. We need to reconsider what makes an ambitious space program worth a substantial investment of public dollars—and consider again the historical and future importance of advancing space technology and developing truly new and valuable space capabilities for the public, the nation, and the world. To achieve the purposes for which it was created, NASA must maintain the excellence of its workforce and their expertise in a wide array of cutting-edge new technologies. As they enter the workforce, it will be impossible to attract the “best and the brightest” to federal service without a foundation of cutting-edge research and technology program opportunities. Moreover, a healthy NASA workforce, armed with appropriate skills and secure in its future, will provide better oversight for technical system procurement and program management. This competence will result in better performing systems, better ability to meet schedule, more productive interactions with other stakeholders in the aerospace enterprise, and more efficient use of taxpayer dollars. Although NASA must accommodate changing priorities and budgets, it must also ensure that it does not lose the important skills and knowledge currently possessed by its workers. NASA also must continue to ensure that the NASA workforce gains the new competencies needed in the aerospace industry of the future. In order accelerate the transition of novel technologies into transformational future space capabilities NASA must invest in demonstrations of innovative space prototypes on the ground and in space. Innovative space prototypes should be implemented in coordination with the DoD, academia, and industry; and wherever possible with co-funding with the private sector in order to speed the application of these new capabilities in creating new space industries. To implement these recommendations effectively, focused and timely near term action is essential: The National Academy of Sciences (National Research Council) should be chartered to conduct an independent, visionary study to identify 6–12 transformational “future space capabilities” that would—if developed—enable a wide range of new, ambitious, and affordable space exploration and development. These future space capabilities would in turn drive planning for government and industry research and technology investments. The Administration should develop—in consultation with the US Congress, and using NASA as its executive agent—a strategic research and technology development roadmap that establishes a baseline for achieving these goals, including objectives, schedules, milestones and budgets. This roadmap should be used to provide the basis for future US investments in advanced space research and technology development and demonstrations. The US space program needs more than a national discussion of what human exploration should do next: International Space Station research versus lunar outposts versus asteroid sorties versus human Mars missions, and so on. These are important questions. Even more, however, weneed to set in place basic policies that can endure from one administration to the next. We need to reconsider what makes an ambitious space program worth a substantial investment of public dollars—and consider again the historical and future importance of advancing space technology and developing truly new and valuable space capabilities for the public, the nation, and the world.

#### Aerospace solves cyberterrorism

Deloitte 12 | (Deloitte is a consulting and financial advisory service, Report Commissioned by the Aerospace Industries Association, " The Aerospace and Defense Industry in the U.S. A financial and economic impact study," March, http://www.aia-aerospace.org/assets/deloitte\_study\_2012.pdf)

The world continues to demonstrate how dangerous it is and how our civilization and way of life can be put in jeopardy quickly. The surprise attacks on Pearl Harbor and the tragic events surrounding the terrorist attacks of 9/11 have shown our nation how vulnerable it can be. Technology innovations and products developed in the aerospace and defense industry have made our nation safer, from sophisticated sensors that can “see” nefarious activities of our adversaries, to the bomb and metal detectors that have become ubiquitous at airports around the world, the industry continues to innovate to produce the necessary defenses used to increase our national security. Recent advances to counter the next generation national security threats include for example, sophisticated software to trace bank transactions of terrorists, advanced listening sensors to eavesdrop on communications of known terrorists, and sophisticated sensors to help discover threats at our airports, borders, and seaports. Of course, the unmanned aerial vehicle (UAV) has been extraordinarily successful in helping to see, then attack if necessary, our adversaries. Lastly, the specter of a potential cyber-attack on our nation’s water, power, transportation or communications infrastructure is cause for alarm, and the industry continues to develop the next generation technologies to address these and future threats.

#### Great power nuclear war

Fritz 9 | Researcher for International Commission on Nuclear Nonproliferation and Disarmament [Jason, researcher for International Commission on Nuclear Nonproliferation and Disarmament, former Army officer and consultant, and has a master of international relations at Bond University, “Hacking Nuclear Command and Control,” July, <http://www.icnnd.org/latest/research/Jason_Fritz_Hacking_NC2.pdf>]

This paper will analyse the threat of cyber terrorism in regard to nuclear weapons. Specifically, this research will use open source knowledge to identify the structure of nuclear command and control centres, how those structures might be compromised through computer network operations, and how doing so would fit within established cyber terrorists’ capabilities, strategies, and tactics. If access to command and control centres is obtained, terrorists could fake or actually cause one nuclear-armed state to attack another, thus provoking a nuclear response from another nuclear power. This may be an easier alternative for terrorist groups than building or acquiring a nuclear weapon or dirty bomb themselves. This would also act as a force equaliser, and provide terrorists with the asymmetric benefits of high speed, removal of geographical distance, and a relatively low cost. Continuing difficulties in developing computer tracking technologies which could trace the identity of intruders, and difficulties in establishing an internationally agreed upon legal framework to guide responses to computer network operations, point towards an inherent weakness in using computer networks to manage nuclear weaponry. This is particularly relevant to reducing the hair trigger posture of existing nuclear arsenals. All computers which are connected to the internet are susceptible to infiltration and remote control. Computers which operate on a closed network may also be compromised by various hacker methods, such as privilege escalation, roaming notebooks, wireless access points, embedded exploits in software and hardware, and maintenance entry points. For example, e-mail spoofing targeted at individuals who have access to a closed network, could lead to the installation of a virus on an open network. This virus could then be carelessly transported on removable data storage between the open and closed network. Information found on the internet may also reveal how to access these closed networks directly. Efforts by militaries to place increasing reliance on computer networks, including experimental technology such as autonomous systems, and their desire to have multiple launch options, such as nuclear triad capability, enables multiple entry points for terrorists. For example, if a terrestrial command centre is impenetrable, perhaps isolating one nuclear armed submarine would prove an easier task. There is evidence to suggest multiple attempts have been made by hackers to compromise the extremely low radio frequency once used by the US Navy to send nuclear launch approval to submerged submarines. Additionally, the alleged Soviet system known as Perimetr was designed to automatically launch nuclear weapons if it was unable to establish communications with Soviet leadership. This was intended as a retaliatory response in the event that nuclear weapons had decapitated Soviet leadership; however it did not account for the possibility of cyber terrorists blocking communications through computer network operations in an attempt to engage the system. Should a warhead be launched, damage could be further enhanced through additional computer network operations. By using proxies, multi-layered attacks could be engineered. Terrorists could remotely commandeer computers in China and use them to launch a US nuclear attack against Russia. Thus Russia would believe it was under attack from the US and the US would believe China was responsible. Further, emergency response communications could be disrupted, transportation could be shut down, and disinformation, such as misdirection, could be planted, thereby hindering the disaster relief effort and maximizing destruction. Disruptions in communication and the use of disinformation could also be used to provoke uninformed responses. For example, a nuclear strike between India and Pakistan could be coordinated with Distributed Denial of Service attacks against key networks, so they would have further difficulty in identifying what happened and be forced to respond quickly. Terrorists could also knock out communications between these states so they cannot discuss the situation. Alternatively, amidst the confusion of a traditional large-scale terrorist attack, claims of responsibility and declarations of war could be falsified in an attempt to instigate a hasty military response. These false claims could be posted directly on Presidential, military, and government websites. E-mails could also be sent to the media and foreign governments using the IP addresses and e-mail accounts of government officials. A sophisticated and all encompassing combination of traditional terrorism and cyber terrorism could be enough to launch nuclear weapons on its own, without the need for compromising command and control centres directly.

### 2AC Conditionality

#### Conditionality---reject the team---destroys stable advocacy---key to defending real world proposals---kills 2AC strategic flex---[magnified by multiple worlds]---1 conditional world and pre-round conditionality solves their offense

### Certainty

#### **Uncertainty kills the aerospace industry**

Maser Chair of the Corporate Membership Committee – American Institute of Aeronautics and Astronautics and President – Pratt & Whitney Rocketdyne, 2011 Jim, “A Review of NASA’s Exploration Program in Transition: Issues for Congress and Industry”, U.S. House Science, Space, and Technology Committee Hearing, 3-30, http://www.prattwhitney.com/media\_center/executive\_speeches/jim\_maser\_03-30-2011.asp

This lack of a unified strategy coupled with the fact that the NASA transition is being planned without any coordination with industry leaders, makes it impossible for businesses like mine to adequately plan for the future.¶ How can we right-size our businesses and work towards achieving greatest efficiency if we can’t define the future need? This is an impossible task.¶ So, faced with this uncertainty, companies like mine continue fulfilling Constellation requirements pursuant to the Congressional mandate to capitalize on our investment in this program, but we are doing so at significantly reduced contractual baseline levels, forcing reductions in force at both the prime contractor and subcontractor levels.¶ This reality reflects the fact that the space industrial base is not FACING a crisis; we are IN a crisis.¶ And we are losing a National Perishable Asset ... our unique workforce.¶ The entire space industrial base is currently being downsized with no net gain of jobs. At the same time we are ¶ totally unclear as to what might be the correct levels needed to support the government.¶ Designing, developing, testing, and manufacturing the hardware and software to explore space requires highly skilled people with unique knowledge and technical expertise which takes decades to develop.¶ These technical experts cannot be grown overnight, and once they leave the industry, they rarely return. If the U.S. develops a tremendous vision for space exploration five years from now, but the people with these critical skills have not been preserved and developed, that vision will disappear.¶ We need that vision, that commitment, that certainty right now, not five or ten years from now, if we are going to have a credible chance of bringing it to fruition.¶ In addition to difficulties in retaining our current workforce, the uncertainty facing the U.S. space program is already having a negative impact on our industry’s ability to attract new talent from critical science, technology, engineering and mathematics. Young graduates who may have been inspired to follow STEM education plans because of their interest in space and space exploration look at the industry now and see no clear future. This will have implications on the space industrial base for years to come.

## \*Immigration DA

### Pounders

#### Multiple fights pound the agenda---Hagel, guns, budget, Brennan

Zengerle 2-14 Patricia, Reuters, "Republicans block vote on Obama's defense nominee, Hagel", 2013, www.reuters.com/article/2013/02/15/us-obama-nominations-hagel-idUSBRE91C1K320130215

The struggle over Hagel's nomination is one of many battles raging between Obama's Democrats and Republicans in Congress, including disputes over gun control, immigration rules and dealing with huge budget deficits.¶ Hagel broke from his party as a senator by opposing former President George W. Bush's handling of the Iraq War, angering many Republicans. Some Republicans have also raised questions about whether Hagel is sufficiently supportive of Israel, tough enough on Iran or capable of leading the Pentagon.¶ His performance at his confirmation hearing before the Senate Armed Services Committee also drew harsh criticism. Even some Democrats have said he appeared unprepared and at times hesitant in the face of aggressive questioning.¶ The panel voted 14-11 along party lines on Tuesday to advance Hagel's nomination to the full Senate.¶ Republican Senator John McCain, for example, had said he opposed procedural tactics to block the vote on Hagel, but changed his mind in order to press the White House to release more information on Benghazi.¶ "As far as we are concerned on this issue, there are other questions. We feel the intervening week and a half is sufficient time to get those questions answered," McCain told a news conference with fellow Republican Senators Lindsey Graham and Kelly Ayotte, who have been among the most vocal Hagel critics.¶ Republicans said that Reid brought the uncertainty on himself by trying to rush Hagel's confirmation. Obama nominated Hagel on January 7 and his hearing before the Armed Services panel took place on January 31.¶ Democrats said the time frame was not unusually short. They also noted that many of Hagel's most vocal opponents served with him during his two terms as senator from Nebraska from 1997 to 2009 and knew him well.¶ The confirmation of another of Obama's national security nominees, John Brennan for CIA director, also faces a delay as the White House and lawmakers joust over the release of sensitive documents, including some related to Benghazi.

### Won’t Pass

#### Immigration is dead on arrival---won’t pass and won’t solve

Epstein 2-16 – Jennifer Epstein, February 16th, 2013, "Rubio: Reported Obama immigration plan 'dead on arrival'" www.politico.com/politico44/2013/02/rubio-reported-obama-immigration-plan-dead-on-arrival-157209.html

Sen. Marco Rubio said Saturday that President Barack Obama's immigration plan will be "dead on arrival" on Capitol Hill if it looks like the proposal reported by USA Today.¶ “If actually proposed, the president’s bill would be dead on arrival in Congress, leaving us with unsecured borders and a broken legal immigration system for years to come," said **Rubio, who's seen as a key figure in pushing a bipartisan immigration** bill through the Senate.¶ A White House spokesman told POLITICO earlier Saturday that the administration continues to support a bipartisan plan from the Hill and has not produced a final bill to send to Congress.¶ Rubio's statement is combative, faulting the administration for releasing a proposal without getting Republican input. “**It’s a mistake for the White House to draft immigration legislation without seeking input from Republican members of Congress,"** Rubio said. "President Obama’s leaked immigration proposal is disappointing to those of us working on a serious solution."¶ "The president’s bill repeats the failures of past legislation," he continued. "It **fails to follow through on previously broken promises to secure our borders, creates a special pathway that puts those who broke our immigration laws at an advantage over those who chose to do things the right way and come here legally and does nothing to address guest workers or future flow, which serious immigration experts agree is critical to preventing future influxes of illegal immigrants."**¶ “Much like the president’s self-described stopgap deferred action measure last year, this legislation is half-baked and seriously flawed," Rubio added. "**It would actually make our immigration problems worse and would further undermine the American people’s confidence in Washington’s ability to enforce our immigration laws and reform our broken immigration system.**

#### **Obama’s strategy is to make sure immigration does NOT pass**

Nazworth 2-18 – Napp Nazworth, February 18th, 2013, "Does Obama Really Want Immigration Reform?" www.christianpost.com/news/does-obama-really-want-immigration-reform-90270/

Republicans are asking whether President Barack Obama really wants immigration reform to pass in the narrow window that experts say now exists in the Congress, pointing to a leak late last week and statements by officials over the weekend.¶ Some congressional Republicans are concerned that the White House immigration proposal leaked to USA Today over the weekend signaled that Obama is more interested in using the issue to divide the Republican Party ahead of the 2014 elections than actually getting an immigration reform bill signed into law, according to some political insiders.¶ The leak "does feed a fear" that Obama "will pull the rug out from under us," said Michael Gerson, a Washington Post columnist and former speechwriter for President George W. Bush, on CBS' "Face the Nation."¶ Stuart Stevens, a top strategist for Mitt Romney's 2012 presidential election campaign, reflected that fear in a panel discussion on ABC's "This Week." Stevens could not understand why **the White House is leaking proposals that have no chance of getting passed in the House, rather than working with Sen. Marco Rubio (Fla.), a leading Republican on the immigration reform issue**.¶ "Is this about politics or is this about passing a bill?" Stevens asked rhetorically. "You have in Senator Rubio someone who really is doing something extraordinary, trying to, and could be a partner in this process to help get it through."¶ Rubio could help the White House "lower the temperature in all this" and "try to get something done," Stevens added.¶ Jonathan Karl, ABC's chief White House correspondent, interviewed Obama's new chief of staff, Denis McDonough, on "This Week." Karl asked him repeatedly why the White House would leak the proposal and why they have not even met with Rubio.¶ "Let's be honest. There is no passing an immigration bill without Marco Rubio. How could the White House be working on a draft without Republican input?" Karl asked.¶ "We've got a bill, we're doing exactly what the president said we would do last month in Las Vegas, which is we're preparing. We're going to be ready," McDonough answered.¶ McDonough was referring to Obama's Jan. 29 speech on immigration reform in which he warned members of Congress that if they did not pass an immigration reform bill, he would propose his own bill. The threat is odd because a bill proposed by Obama would certainly have less support than the bills worked on by bipartisan groups in the House and Senate.¶ "An Obama immigration plan is not going to pass the House," former speaker of the House and presidential candidate Newt Gingrich pointed out in the panel discussion.¶ A bipartisan House immigration bill negotiated with a bipartisan Senate immigration bill "could actually get to the president's desk," Gingrich added. "But an Obama plan, led and driven by Obama, in this atmosphere, with the level of hostility towards the president, and the way he goads the hostility, I think it's very hard to imagine that his bill is going to pass the House."¶ Liberal Washington Post columnist Ruth Marcus added that Gingrich's point raises a "really interesting leadership conundrum with Obama" because Republicans are asking Obama to show more leadership on the debt crisis but are asking him to stay out of the way on the immigration issue.¶ The fear among some Republicans is that the White House will seek to add a "poison pill" to the bill, or a provision that will make the bill unattractive to Republicans who otherwise want immigration reform. The bill would not pass, but then Obama could blame Republicans for killing the bill and use it as an issue in the 2014 midterm elections.¶ **The leaked White House immigration proposal had several issues of concern for Republicans: it would not include adequate border security, it would not require unauthorized immigrants to wait until all immigrants who have applied to enter the country through legal means are processed first, and there would be no guest worker program**. A bill that did not include, at least, these three would not be able to pass in the Republican-controlled House.¶ Obama has already called for giving gay partners family status in the legislation, and there have been discussions in the House and Senate about adding that to the bill. Such a proposal, though, would diminish support among many, mostly Republican, members of Congress.¶ The Catholic Church and many evangelical groups are lending their support to immigration reform, but adding a controversial provision about gay partners could cause some of them to withdraw their support.

#### **It LOOKS like it will pass but it WON’T---politicians are doing nothing**

Navarrette 2-19 – Ruben Navarrette, CNN Contributor, February 19th, 2013, "Guest worker issue may kill immigration reform" [www.cnn.com/2013/02/19/opinion/navarrette-immigration-reform/index.html](http://www.cnn.com/2013/02/19/opinion/navarrette-immigration-reform/index.html)

(CNN) -- All those who are hoping that comprehensive immigration reform is going to happen this year -- Latinos, businesses, churches, agriculture industry, law enforcement and others -- are in for a rude awakening.¶ The trick for politicians will be to look as if they're doing something, when really they're doing nothing. But, **regardless of how it looks,** it's a long shot that Congress will pass immigration reform this year.¶ That's bad news for those who want to give the undocumented a chance to get right with the law and develop a sensible, fair and efficient policy for future immigrants. But it's good news for those who resist legalizing the undocumented because they're afraid of foreigners -- either because of competition with their work ethic, or that they're changing the culture and complexion of the country.¶ The problem isn't just Republicans, who can't get on the same page about whether they want to be reformers. It's also **Democrats, who seem to be playing the immigration reform camp for chumps**.¶ The signs are everywhere, if you know where to look. For instance, a few days ago, a draft of President Obama's immigration reform plan was leaked. It took four years to write, and yet its key points fit on a cocktail napkin with room to spare.¶ Here's what is in the plan: more border security, a requirement that employers use an electronic system to verify if prospective hires are eligible to work, and a long path to citizenship for the estimated 11 million undocumented immigrants in the United States.

#### **Won’t pass the Senate, and House leaders won’t push**

The National 2-6 – National Journal Staff, February 6th, 2013, "The Edge: House to Senate: You Go First on Immigration" [www.nationaljournal.com/congress/the-edge-house-to-senate-you-go-first-on-immigration-20130206](http://www.nationaljournal.com/congress/the-edge-house-to-senate-you-go-first-on-immigration-20130206)

So when immigration reform gained bipartisan momentum after the election, this group came out of the shadows and GOP House Speaker John Boehner said the group basically had a deal. **The House had an opportunity to lead.**¶ **But** that’s not going to happen.¶ Sure, the House will likely hold hearings and markups, and maybe even offer the bipartisan bill, but they’re not going first. House Republican leadership thinks immigration will likely fail in the Senate, and they’re not wild about the idea of making their members take a politically tough vote only to have reform die. ¶ So despite being light years ahead of the Senate, **the House is unlikely to lead.**

### No Impact---General

#### Comprehensive reform fails – if it passes it has too many compromises that pent solvency

Morrison 12-9 – Bruce Morrison, a former U.S. Representative from Connecticut, was the chairman of the House immigration subcommittee and the author of the Immigration Act of 1990. December 9th, 2012, "One Bill of Compromises Isn’t the Answer” www.nytimes.com/roomfordebate/2012/12/09/understanding-immigration-reform/one-immigration-bill-of-compromises-isnt-the-answer

To many, “comprehensive immigration reform” means “fix it and forget it.” But doing it all in one bill reprises what got us in the current mess in the first place. After major reform bills in 1986 and 1990, the failing employment verification scheme and the clogged green card process were allowed to go unattended. The “enforcement only” 1996 law only froze the mess in place.¶ Save the 'punishment' for those that do not comply with a system that works, not those ensnared in the current system that does not.¶ **A huge compromise of all competing immigration fixes larded into one bill will involve compromises that do not serve the nation’s interests.** Instead we need to assemble the votes to do the two things that must be done — a broad earned legalization program for the 11 million now illegally resident in the country in conjunction with the assurance that this problem will not happen again. That assurance will come from a universal, electronic, identity-authenticating screening of all workers to ensure that they are authorized to work in the U.S.¶ Because almost all who make unauthorized entries and overstays do so to seek and accept employment, no other tool will get the result we need to make legalization politically and philosophically justified — that we have fixed the source of the problem. And this also means using the employment relationship to roll-in legalization while rolling out universal verification.¶ The key point is that prevention of illegal presence is the goal. Save the “punishment” for those that do not comply with a system that works, not those ensnared in the current system that does not.¶ Our legal immigration system needs lots of fixing, like the increase of STEM green cards passed by the House last week and much more. But these fixes, including all future flows beyond the current one million annual immigrants and the millions who will be legalized, will get much easier to negotiate when the legalization-prevention barrier is removed.

### No Impact---Timeframe

#### Timeframe is more than 10 years

Navarrette 2-19 – Ruben Navarrette, CNN Contributor, February 19th, 2013, "Guest worker issue may kill immigration reform" [www.cnn.com/2013/02/19/opinion/navarrette-immigration-reform/index.html](http://www.cnn.com/2013/02/19/opinion/navarrette-immigration-reform/index.html)

How long? The undocumented could immediately apply for a special protective status to avoid deportation, but it would take them about eight years to get legal permanent residency (a green card) and another four or five years to become a U.S. citizen.

### PC Not Key

#### Obama not spending PC on immigration

Aguilar 2-11 – Latino Partnership for Conservative Principles, February 11th, 2012, “The great absentee on immigration” http://thehill.com/blogs/congress-blog/homeland-security/282219-the-great-absentee-on-immigration

The president loves to pontificate about immigration, but the reality is that since his administration began, he hasn’t done anything to advance the discussion of immigration and help forge the bipartisan consensus necessary to address this important issue. He’s only made promises that he hasn’t kept. As a candidate back in 2008, he told Univision’s Jorge Ramos that “[w]hat I can guarantee is that we will have in the first year [of the presidency] an immigration bill that I strongly support.” Yet, he didn’t lift a finger to keep what Ramos called “la promesa de Obama”–Obama’s promise. The president went at it again a few days ago in Las Vegas where he outlined his immigration reform plan and basically restated “la promesa,” saying, "I’m here today because the time has come for common-sense, comprehensive immigration reform.” Yet, the president has done nothing to reach across the aisle to discuss his ideas on how to solve this tough issue. Since the election, in fact, **he hasn't called one Republican member to talk about immigration.** When asked in an interview why he hadn’t pro-actively reached out to Republicans, **he seemed to indicate that the leadership has to come from Capitol Hill and** not from him. “I am happy to meet with anybody, anytime, anywhere to make sure that this thing happens,” he said. “You know, the truth is oftentimes what happens is members of Congress prefer meeting among themselves to build trust between Democrats and Republicans there.” The question then is: how exactly is he leading and "working on the issue" if he's not talking to anyone on the other side? After all, the most important role of a president is of consensus builder. Presidents outline a vision to resolve specific problems the nation is facing and then work to bring legislators from both parties together. That’s what presidents have always done. A president doesn't lead or govern just by giving speeches. Congressman Luis Gutierrez, a Democrat from Illinois, and an unquestioned leader on immigration reform, just last month vented his frustration with the president in an interview with The Hill: “Who’s missing from these conversations is the president of the United States. When senators from both parties and members of the House are talking, when you have the Senate majority leader and Speaker Boehner both saying that this is an important priority. Who’s the one missing? The president.” Nonetheless, as Congressman Gutierrez mentioned, the good news is that congressional Democrats and Republicans early on, right after the elections, began working together on the issue and have achieved considerable progress. Just recently, after weeks of tough negotiations and discussions, a bipartisan group of senators came out with a framework that fully addresses the immigration challenges that our nation is facing, and that strikes an appropriate balance between the legitimate security concerns of the country and our tradition of being a welcoming nation. And a bipartisan working group in the House is expected to announce a similar blueprint in the next few weeks. The only party that has not been involved in these historic and productive conversations has been the White House. If the president is really being honest about wanting to get immigration reform done, then it would be better for him to quit for now the speaking tour, follow the example of congressional Democrats and Republicans, and work in earnest to expand the bipartisan consensus that has been achieved so far. Many are concerned, though, that the president will only use immigration for political advantage; that he will call on Americans to mobilize and express their support for immigration reform, but **won’t do anything himself to engage congressional leaders** in a serious conversation about the issue. If the president chooses this path, **he will surely disrupt the great progress that has been achieved so far by both parties** in Congress.

### XO Solves

#### **Obama will XO immigration reforms**

Lillis 2-16 – Mike Lillis, February 16th, 2013, "Dems: Obama can act unilaterally on immigration reform" thehill.com/blogs/regwatch/administration/283583-dems-recognize-that-obama-can-act-unilaterally-on-immigration-reform

President Obama can – and will – take steps on immigration reform in the event Congress doesn't reach a comprehensive deal this year, according to several House Democratic leaders.¶ While the Democrats are hoping Congress will preclude any executive action by enacting reforms legislatively, they say the administration has the tools to move unilaterally if the bipartisan talks on Capitol Hill break down. Furthermore, they say, **Obama stands poised to use them.**¶ **"I don't think the president will be hands off on immigration for any moment in time**," Rep. Xavier Becerra (D-Calif.), the head of the House Democratic Caucus, told reporters this week. "**He's ready to move forward if we're not**."¶ Rep. Joseph Crowley (N.Y.), vice chairman of the Democratic Caucus, echoed that message, saying Obama is "not just beating the drum," for immigration reform, "he's actually the drum major."¶ "There are limitations as to what he can do with executive order," Crowley said Wednesday, "but he did say that if Congress continued to fail to act that he would take steps and measures to enact common-sense executive orders to move this country forward."¶ Rep. Raul Grijalva (D-Ariz.), who heads the Congressional Progressive Caucus, said there are "plenty" of executive steps Obama could take if Congress fails to pass a reform package. "The huge one," Grijalva said, is "**the waiving of deportation**" in order to keep families together.¶ "Four million of the undocumented [immigrants] are people who overstayed their visas to stay with family," he said Friday. "So that would be, I think, an area in which … there's a great deal of executive authority that he could deal with."¶ The administration **could also waive visa caps**, Grijalva said, to ensure that industries like agriculture have ample access to low-skilled labor.¶ "Everybody's for getting the smart and the talented in, but there's also a labor flow issue," he said.

### DOD

#### The DOD supports SPS and shields it

Hurst 8 – executive editor and writer for ecopolitology and Cleantechnica (Timothy B. December 21, 2008, Red Green & Blue, “Will Obama Champion Space-Based Solar Power?” <http://redgreenandblue.org/2008/12/21/will-obama-champion-space-based-solar-power/>)

But there has also been some discussion that Obama could make cuts at NASA, if for no other reason than something has got to be cut somewhere. Although funding NASA may not be a top priority for Obama, a strong argument could be made that investment in SSP research program would sync with his focus on building a clean energy economy. It also helps that the idea has been supported by Defense Department officials who see SSP applications in the transmission of electricity to remote locations to support military actions. I’m not suggesting that Obama will use the cover of the Defense Departmen**t to expand solar research**, but used as part of a strategy that promotes economic growth and environmental health, it may be a strategic choice that has some political legs. Whatever political method the Obama administration uses to hammer on the clean energy agenda, it is clear that Obama’s will be a science-based administration. And as recently as yesterday, Obama reiterated that his administration would not stifle hard-to-swallow science, but nurture it. Obama said in his weekly address: “Today more than ever before science holds the key to our survival as a planet and the security and prosperity as a nation. It’s time once again that we put science at the top of our agenda and restore America’s place as the world leader in science and technology.” If that includes a robust Space-Based Solar Program, we’ll have to wait and see.

### A/O---India Relations

#### Plan solves India relations

Dinerman 9 – regular contributor to the Space Review

(Taylor, “Should India and the US cooperate on space solar power?,” <http://www.thespacereview.com/article/1389/1>)

If the US has a serious medium-term need for a very large new source of clean energy, India needs it even more. While there is a lot of talk about terrestrial solar, wind, and geothermal power as alternatives to coal—which seems to be currently politically unacceptable—or nuclear—which has its own set of political problems but whose greatest drawback may simply be the length of time it takes to build new power plants—space solar power (SSP) may be the only alternative that could be made to work before the major global electricity demand crisis hits, around the year 2050. In Washington lots of people have complained that the Obama Administration has so far not given the India-US relationship the attention it deserves. Others are waiting to see if this relatively new team is going to follow up on the progress made by both the Clinton and the George W. Bush Administrations in building a real friendship between the two democratic giants. The one area in which there seems to be movement on, though, is a “renewable energy partnership”. From India’s standpoint the government does take the energy problem very seriously. While they connect it with the question of climate change, they have made it clear that they are not willing to inflict economic pain on their people in order to appease those in the West who are demanding that they cease their current drive to climb out of mass poverty in the name of the environment. Former External Affairs Minister Pranab Mukherjee made this clear when he spoke at the Asia Society in New York last year and said, “It is therefore completely one sided to target countries like India, whose emissions though modest are rising, but fail to bring to account those who have been responsible for more than 70% of the accumulated emissions in the atmosphere.” Recognizing the potential weakness of a case based strictly on the question of climate change, Mukherjee was wise enough to add that “even if there were no climate change arguments, considerations of energy security alone would require a medium to long term strategy of implementing a strategic shift from fossil fuels to non fossil fuels.” He called for a “major R&D effort to develop applications that that can provide convenient, cost effective large scale applications of solar energy.” Any analysis of the potential of terrestrial solar energy in India or elsewhere runs up against the awesome size of the future demand for power. Photovoltaic panels on rooftops and solar water heaters all make excellent small-scale contributions to the solution, but they cannot by any stretch of the imagination fulfill the requirements of a huge growing economy like India’s. Only SSP, which operates 24 hours a day, 7 days a week, year after year, can hope to meet this need. Fortunately both India and the US have space programs and technologies that could, if developed together and possibly with other interested nations such as Japan, bring SSP systems into service sometime late next decade or the early 2020s. With its commitment to develop a new low cost reusable spaceplane, the India Space Research Organisation (ISRO) is already working on one of the key technologies needed for an SSP system. Indian participation in both private and public SSP programs should be welcomed by the US. Ehe US government should make an effort to facilitate this by helping with visas and work permits for qualified Indian scientists and engineers. Recent moves towards reforming the notorious International Traffic in Arms Regulations (ITAR) should include ensuring that SSP systems are covered by the Department of Commerce regulators rather than by the State Department, which has gained such a sorry reputation in this area. In the near term the new Indo-US renewable energy partnership would seem to be the right place to start this collaboration. Together the partners can identify what will be needed in the way of technological and scientific investments over the next decade in order to make SSP a reality. India has lots of talent that can be committed to this effort and so does the US. In fact, the kind of ambitious idealism that we saw at NASA during the Apollo years could be engendered by this goal. Safe, clean, abundant energy from the Sun is not an impossible dream. The technology has not been perfected and the need for new, low-cost Earth-to-orbit transportation systems is as urgent as ever, but there are no requirements for any scientific breakthroughs. The Space Solar Power Study released by the US National Security Space Office (NSSO) in October 2007 found that since the 1977 “Reference” study, there had been: (a) improvements in PV [photovoltaic] efficiency from about 10% (1970s) to more than 40% (2007); (b) increases in robotics capabilities from simple tele-operated manipulators in a few degrees of freedom (1970s) to fully autonomous robotics with insect-class intelligence and 30–100 degrees of freedom (2007); (c) increases in the efficiency of solid state devices from around 20% (1970s) to as much as 70%–90% (2007); (d) improvements in materials for structures from simple aluminum (1970s) to advanced composites including nanotechnology composites (2007) The 2007 NSSO study showed just how far the technology had come and why space solar power is now a more viable alternative for very large-scale power generation than ever before. India and the US are natural partners in the development of this technology and the opportunity provided by the planned renewable energy partnership is a perfect place to begin.

### SPS Link

#### No link---does NOT go through Congress, just the DOD

#### Not an opportunity cost---a logical policymaker could do both---key to decision-making

## \*K

### Framework

#### Simulate the enactment of the plan and weigh the consequences versus the alternative – it’s key to decision-making and fairness – they moot the 1AC and make it impossible to be aff

#### The reps framework is a voting issue – decision-making and opportunity costs are core values in debate

### Norton

#### Political engagement is key – learning about space policy is key to becoming an effective space advocate

Livingston 2 – Dr. David M. Livinston, Professor at the University of North Dakota School of Space Studies, and founder of The Space Show, Aug 2002, “The Prospects for Space Commerce in the Aftermath of 9-11” Paper to the Mars Society, <http://www.spacefuture.com/archive/the_prospects_for_space_commerce_in_the_aftermath_of_9_11.shtml>

A second recommendation is to realize that **political activity on the part of** space advocates and commercial space promoters is important. Our nation thrives on political activity and effectively communicating with our elected representatives and policy makers is an important part of our political, social, and economic way of life. Even if the immediate response is tepid, we must push forward with our goals and our focus in the political arena. By doing so **we can accomplish much over a shorter time frame than if we did not advocate in the political arena.** The key is to make sure that our efforts are productive and that we understand how specific barriers in the form of policies, regulations, and laws actually interfere with space business opportunities, **and how these can be changed**. Many of the existing space advocate organizations have very effective political action components in their organizations so learning how to do this does not mean reinventing the wheel.

#### Action with policy relevance is key when survival is at stake

Norton 5 (Bryan G, professor of philosophy at the Georgia Institute of Technology, “Sustainability: A Philosophy of Adaptive Ecosystem Management”, University of Chicago Press, November 1, 2005, pp. 151-154)

Pragmatists pay attention to the particularities of unique situations. In action-forcing situations, it is often possible to provide helpful, if context- sensitive, guidance to decide what to accept as certain enough to guide action and what is not so certain and therefore requires further study. These decisions, which occur within a value-laden context, allow us to use agreements about values—however limited and situation-specific—to accept certain goals as consensus goals. Then we can pursue observations and management experiments to reduce debilitating uncertainty regarding techniques to achieve those goals. Shared values and goals can, in this way, sometimes serve as the solid ground on which to stand to undertake experimentation with means to achieve the goals, thereby reducing uncertainty about system functioning. At other times, of course, beliefs about the system and its behavior seem undeniable, and we can stand on these planks to deliberate about realistic and wise goals. The epistemology of adaptive management thus provides for gradual progress and improvement of both our belief system and our preferences and values, by using experience to triangulate between temporarily accepted beliefs and values. The most controversial aspect of this knowledge- seeking strategy, perhaps, is the idea that in concrete situations shared values can sometimes serve as a solid basis upon which to pursue mission-oriented science to reduce uncertainty about outcomes of our choices. To explore this idea, it is essential that we understand environmental values in such a way that through successive applications of our method, values can be improved over time. In this and the remaining chapters in part 2,1 provide such a context-sensitive approach that can serve to bootstrap both our values and our factual understanding of management situations simultaneously.¶ Likening our epistemological problem to a ride on Neuraths boat, which is required to stay afloat indefinitely while repairs are made, we can understand our problem as one of deciding which of our beliefs to accept as strong enough and which should be submitted to immediate and critical review and testing. Sailors on the boat are motivated by their desire to survive, and so they undertake the repairs on the boat with great deliberation and care. They must not only make important technical judgments regarding which planks are becoming weak with age and rot, but they must also make judicious choices regarding which planks must, given the importance of their function, be given priority. Analogously, as adaptive managers, we are driven by the desire to stay afloat and to prosper as a community, and we must similarly decide carefully what beliefs to accept as given, which should be doubted, and which points of uncertainty are of highest priority, given the shared goals of the community. Like Neuraths sailors, we must make such epistemological judgments under pressure; if we guess wrong and stand on a weak board to fix a stronger one, we face danger, if we stand on a strong board and fix a weak one, we could still face danger if, for example, we choose to fix weak boards of no direct importance to the seaworthiness of the vessel and ignore others that might fail catastrophically. We must, like Justice Holmes's judge, act in a way that fulfills several social demands, including the demand that the present decision be both consistent with precedent and legal tradition and also responsive to the new demands of a new situation.¶ The particular context of a real management dilemma—a context always suffused with value—can be very important for pragmatists in determining which beliefs should be accepted, however provisionally, and which should be submitted to more intense scrutiny by observation and experiment. The necessity of acting—and refraining from action is itself an action—enforces a kind of discipline, a discipline felt in a particular situation with real values at stake. In some situations, for example when the very existence of the community is threatened, decisions can be seen against a backdrop of unquestioned values (community survival); in these situations consensus on values may be far stronger than consensus on science. Epistemological decisions, in situations where decisions are forced and important values are at stake, thus involve judgments of importance as well as truth. We can only examine our whole belief system and try to find some beliefs we can temporarily place beyond doubt. Given the goal of management, we first concentrate on beliefs that are most important to the ongoing voyage, postponing examination of others until later: we keep our ship afloat, gradually transforming it plank by plank. Similarly, adaptive managers sometimes, by hypothesis, help themselves to a platform of beliefs in order to question the goals that should be pursued; and at other times we assume our goals are worthy ones and proceed to test appropriate scientific hypotheses related to the attainment of those goals. Optimistically, the adaptive manager believes that this platform, which shifts over time and in the process of many trials, yields improved understanding and improved goals through an alternation between action and reflection. This may be the only effective way to respond to wicked problems as they arise in a community with diverse and sometimes competing values.¶ Of course one might object that this whole process is circular and that no "true" justification of goals or actions takes place. We assume facts to support values, and we then stand on the values to support the importance of scientific research to reduce uncertainty and to allow actions to support those values. Now we play our epistemological trump card—the ability of diverse communities, if they operate in an open, democratic mode—to focus attention on weak assumptions and unjustifiable principles. In open public debate and open public processes, when well-informed stakeholders have free access to information and to political institutions, diverse members of a community will have an incentive to identify weaknesses—scientific, economic, and moral—in policies proposed by competing groups. If a process can be created that mimics the process the repairmen on Neuraths boat must develop if they are to survive, then we can give up the dry dock of a priori, self-evident truths and trust science and the observational method, especially if empowered by a strong sense of shared community values, to identify weak planks and keep the boat afloat. So a reasonable way to proceed, in an adaptive management framework, is to inspire stakeholders and participants to challenge and question both the beliefs of science and the proposed goals and values. Democracy, in this sense, can be a powerful engine of truth-seeking. A diverse population, in adaptive management as well as in Darwinian evolution, increases adaptability, by exploring a variety of available options, winnowing out the weak assumptions, and pursuing the most justifiable goals within a particular situation.¶ Provided Neuraths analogy is apt, we can proceed with our analysis, having established a crucial role for values in our epistemological choices; now we turn our attention to improving our understanding of, and language for describing, environmental values. We want to understand environmental values theoretically. As adaptive managers, however, we are also interested in the way they function in a process of local, community-based experimental management. So far I have emphasized the practical costs of not having at our disposal a coherent and intelligible language, and an associated explanatory theory, for discussing environmental values and policy. These practical difficulties were symbolized by the crooked corridors at EPA; and none of EPA's corridors of communication are more crooked and blocked than those through which information about environmental values and goals should flow.¶ One important requirement of straightened corridors of communication is the creation of an integrative language that allows cross-disciplinary and cross-interest-group communication. So one task is to develop some clearer ways of talking about environmental values, relating them to the statements of disciplinary and integrative sciences, and—most importantly and most practically—creating an enlightening, integrative discourse about environmental science, values, and policy goals. If we are to go beyond simply improving communication, however, and move toward substantive agreements about what to do to protect resources and live sustainably, we must also provide a theoretical structure that connects the ideal of sustainability to justifiable environmental policy goals that can be operationalized, goals that can be stated and pursued in real-life communities with real-life problems. The purpose of this part of the book is two-fold: to improve our linguistic tools for communication about environmental values and to offer the broad outlines of a positive theory of environmental values.¶ Pragmatists, from Peirce to Leopold, and adaptive managers are not anti-theory; they are; however, very wary of theory cut loose from possible observation. No beliefs are ultimately immune from revision in the face of experience; all theory must sooner or later stand the test of experience, which helps us to separate truth from falsehood and nonsense. This generalization applies to theories of environmental value no less than to empirical hypotheses about causal factors. The goal of such a process is to create theory as a general reflection of experience and to avoid a priori theory invoked to dictate the general shape of any environmental values. By testing proposed theories against their performance in articulating, clarifying, and justifying real environmental goals of real communities, we gradually hone a language that will help communities in the future to ask the right questions and to improve their chances of achieving meaningful improvements in their policies.

### Perm

#### Perm do both

#### Perm do the plan without the representations – they’re not an intrinsic part of the plan

#### Perm do the alt – justified by vague alts and floating PIKs – both are voting issues for being moving targets and stealing the 1AC

#### The perm solves – combining security and other justifications for environmental action is key to effective coalitions

Dabelko 97—Professor and Director of Environmental Studies at the George V. Voinovich School of Leadership and Public Affairs at Ohio University (Geoffrey, Environment and Security: Core Ideas and US Government Initiatives, SAIS Review 17.1 (1997) 127-146)

Undoubtedly, environment and security research, rhetoric, and activities--and the sobering statistics and trenchant analyses of environment and population dynamics that accompany them--have significantly raised the profile of many environmental concerns. They have also generated many useful discussions and new ways of thinking among a diverse set of experts, including those who previously considered the environment peripheral or unimportant to their interests.¶ At the same time, there are serious limitations to the environment and security conceptual and linguistic framework. As convincing as certain security-related arguments may be, they are not the only reasons why the American public, decisionmakers, and other nations should care about the environment. Value-oriented considerations about the aesthetics of nature, human responsibility for global stewardship, and humanitarian concerns are also important. These considerations [End Page 141] can greatly enhance the process of formulating effective solutions and winning sustained public attention and support for international environmental action.¶ Policymakers might therefore be best served by framing international environmental priorities in terms of a broad set of interests, including, but not limited to, security concerns. They should resist the temptation, common in security analyses, to examine environmental problems solely in terms of crises and "threats." Though helpful in setting priorities, threat-based analyses can have the unintentional effect of encouraging decisionmakers to pay attention to issues only when crises are imminent, by which time it is often too late for effective interventions and corrective measures. Examining how environmental preservation will enhance security and other interests over time might lead decisionmakers to adopt more appropriate long-term strategies to address the underlying causes of problems.¶ International environmental issues will be most effectively addressed in the decades to come through a combination of conceptual clarity, a pragmatic and multidisciplinary approach to problem solving, an emphasis on long-term strategies, and an improved willingness and ability among leaders to explain the complexity of environmental change. As the debates on environment and security continue, environmentalists' arguments will be strengthened if they resist the temptation to place all their priorities under the attention-grabbing security rubric. Meanwhile, skeptical foreign policy experts will benefit from recognizing the real and potential effects of environmental change and their relevance to many critical interests. As the United States considers security expenditures and priorities for the twenty-first century, the vibrant debates concerning environment and security matters will continue to be instructive

### Enviro Reps

#### Apocalyptic rhetoric motivates action on climate change – it causes emancipation, not climate fatigue

Beck 10 (Ulrich, Professor of Sociology at University of Munich, the British Journal of Sociology Visiting Centennial Professor at the London School of Economics and Political Sciences, and, since 2009, Senior Loeb Fellow at the Harvard Design School, “Climate for Change, or How to Create a Green Modernity?”, Theory Culture Society 2010 27: 254)

Sixth thesis: The political explosiveness of global risks is largely a function of their (re-)presentation in the mass media. When staged in the media, global risks can become 'cosmopolitan events'. The presentation and visualization of manufactured risk makes the invisible visible. It creates simultaneity, shared involvement and shared suffering, and thereby creates the relevance for a global public. Thus cosmopolitan events are highly mediatized, highly selective, highly variable, highly symbolic local and global, public and private, material and communicative, reflexive experiences and blows of fate.¶ To understand this, we have to draw upon the picture of 'Mediapolis' so minutely and sensitively painted by Silverstone (2006) and the picture sketched much earlier by Dewey (1946). There Dewey defends the thesis that it is not actions but their consequences which lie at the heart of politics. Although he was not thinking of global warming, BSE or terrorist attacks, his theory can be applied perfectly to world risk society. A global public discourse does not arise out of a consensus on decisions, but rather out of disagreement over the consequences of decisions. Modern risk crises are constructed out of just such controversies over consequences. Although some insist on seeing an overreaction to risk, risk conflicts do indeed have an enlightening function. They destabilize the existing order but can also be seen as a vital step towards the construction of new institutions. Global risk has the power to confuse the mechanisms of organized irresponsibility and even to open them up for political action.¶ This view of 'enforced enlightenment' and 'cosmopolitan realism' opens up the possibility that the 'manufactured uncertainties' and 'manufactured insecurities' produced by world risk society prompt transnational reflexivity, global cooperation, coordinated responses against the background of 'cosmopolitan communities of risk', so the same processes may also prompt much else besides. My emphasis on staging follows from the fact that my central concept is not 'crisis' but 'new global risk'. Risks are, essentially, man-made, incalculable, uninsurable threats and catastrophes which are anticipated but which often remain invisible and therefore depend on how they become defined and contested in 'knowledge'. As a result their 'reality' can be dramatized or minimized, transformed or simply denied, according to the norms which decide what is known and what is not. They are, to repeat myself, products of struggles and conflicts over definitions within the context of specific relations of definitional power and the (in varying degrees successful) results of staging. If this is the core understanding of risk, then this means that we must attach major significance to media staging and acknowledge the potential political explosiveness of the media.¶ How does this correspond to empirical facts? As Cottle (2009) argues, the release in early 2007 of the latest International Panel on Climate Change report proved to be a transformative moment in the news career of climate change (IPCC, 2007). At first climate change featured relatively infrequently in scientifically framed news reports, then it was contested by a small group of news-privileged climate change sceptics, and finally it came of age as a widely recognized 'global risk' demanding responses from all the world's nations. If IPCC predictions and those of more recent scientific modelling come to pass over the next couple of decades, then climate change may yet prove to be the most powerful of forces summoning a civilizational community of fate into existence.¶ The Western news media's spectacular visualization of climate change, presenting dramatic and symbolic scenes collected from around the world, has undoubtedly helped to establish the latter's status as a widely recognized global challenge and serves to illuminate a third-generational modernity staged as global spectacle. Here the news media do not only function in terms of a global focusing of events; rather, the news media adopt a more performative stand, actively enacting certain issues as 'global risks'. Images which function in a more indexical sense to stand in for global processes of climate change now regularly feature across the news landscape. And here some sections of the news media have sought to champion climate change awareness, often through visually arresting images which aim to register the full force and threat produced by global warming around the world. In images such as these, the abstract science of climate change is rendered culturally meaningful and politically consequential; geographically remote spaces become literally perceptible, 'knowable' places of possible concern and action. This performative use of visual environmental rhetoric is not confined to selected newspapers; interestingly enough, it has become mainstream. In this way the threat and reality of global climate change has been 'brought home', especially in the West, as possibly 'the' global risk of the age.¶ On the other hand, the continuing pull of the national within the world's news formations and discourses cannot be underestimated. This is, of course, true in the case of wars. Wars continue to be reported through spectacles tinted by national interests. However, as climate change moves into a new phase of national and international contention, countries, corporations and citizens are also negotiating their respective roles and responsibilities, whether in respect of national policies of mitigation and adoption, or through governmental support of developing countries confronting the worst effects of global warming. Here, too, actions and reactions are often reported in and through national news prisms and frames of reference.¶ However, the narrative of global risk is misinterpreted as a narrative of the Western 'emergency imaginary' (Calhoun, 2004). It is not a 'singing into the apocalypse', and it is not simply a 'wake-up call to reality'. Rather it is about expectation and anticipation, it is about a narrative to dream differently. 'Emancipation' is the key word. Either the ecological concern manages to be at least as powerful as this hunger for modernization or it is condemned to repeated failure.

#### Securitizing renewable energy debates is the only way to gain support

Craig 12 – worked for the Lower East Side Ecology Center and The Fund for Public Interest. Fellow, Jeannette K Watson Fellowship (Caroline, How Environmentalists and Skeptics Can Discover the Same Goals: Making Eco-Friendly More People-Friendly, http://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=1116&context=honorscollege\_theses)

Creating a greener society is going take more than the usual suspects of liberal college students, surfers, and hemp-wearing urbanites. People who do not identify themselves as environmentalists need to find other reasons to care; to share common goals with the environmental movement. Incorporating the challenges of managing one's "household economy," especially energy costs, is one important way to bring discussion of environmental issues to the dinner table. Secondly, making alternative energy a part of the discussion on global and national security- pitching it from a conservative's perspective- can also diversify the conversation and those taking part in it.

### Security Reps

#### Rejection causes threat construction based on personal beliefs

Fitzsimmons 7 Michael, Defense Analyst in DC, “The Problem of Uncertainty in Strategic Planning”, Survival, Winter 06/07

But handling even this weaker form of uncertainty is still quite challeng- ing. If not sufficiently bounded, a high degree of variability in planning factors can exact a significant price on planning. The complexity presented by great variability strains the cognitive abilities of even the most sophisticated decision- makers.15 And even a robust decision-making process sensitive to cognitive limitations necessarily sacrifices depth of analysis for breadth as variability and complexity grows. It should follow, then, that in planning under conditions of risk, variability in strategic calculation should be carefully tailored to available analytic and decision processes. Why is this important? What harm can an imbalance between complexity and cognitive or analytic capacity in strategic planning bring? Stated simply, where analysis is silent or inadequate, **the personal** beliefs **of decision-makers** fill the void. As political scientist Richard Betts found in a study of strategic sur- prise, in ‘an environment that lacks clarity, abounds with conflicting data, and allows no time for rigorous assessment of sources and validity, ambiguity allows intuition or wishfulness to drive interpretation ... The greater the ambiguity, the greater the impact of preconceptions.’16 The decision-making environment that Betts describes here is one of political-military crisis, not long-term strategic planning. But a strategist who sees uncertainty as the central fact of his environ- ment brings upon himself some of the pathologies of crisis decision-making. He invites ambiguity, takes conflicting data for granted and **substitutes a priori scepticism about the validity of prediction** for time pressure as a rationale for discounting the importance of analytic rigour. It is important not to exaggerate the extent to which data and ‘rigorous assessment’ can illuminate strategic choices. Ambiguity is a fact of life, and scepticism of analysis is necessary. Accordingly, the intuition and judgement of decision-makers will always be vital to strategy, and attempting to subordinate those factors to some formulaic, deterministic decision-making model would be both undesirable and unrealistic. All the same, there is danger in the opposite extreme as well. Without careful analysis of what is relatively likely and what is relatively unlikely, what will be the possible bases for strategic choices? **A decision-maker with no faith in prediction is left with little more than** a set of worst-case scenarios and his **existing beliefs** about the world to confront the choices before him. Those beliefs may be more or less well founded, but if they are not made explicit and subject to analysis and debate regarding their application to particular strategic contexts, they remain only beliefs and premises, rather than rational judgements. Even at their best, such decisions are likely to be poorly understood by the organisations charged with their implementation. At their worst, such decisions may be poorly understood by the decision-makers themselves.

### AT: Discourse

#### Prioritizing discourse paralyzes politics

Taft-Kaufman 95 – Jill Speech prof @ CMU, Southern Comm. Journal, Spring, v. 60, Iss. 3, “Other Ways”, p pq

The postmodern passwords of "polyvocality," "Otherness," and "difference," unsupported by substantial analysis of the concrete contexts of subjects, creates a solipsistic quagmire. The political sympathies of the new cultural critics, with their ostensible concern for the lack of power experienced by marginalized people, aligns them with the political left. Yet, despite their adversarial posture and talk of opposition, their discourses on intertextuality and inter-referentiality isolate them from and ignore the conditions that have produced leftist politics--conflict, racism, poverty, and injustice. In short, as Clarke (1991) asserts, postmodern emphasis on new subjects conceals the old subjects, those who have limited access to good jobs, food, housing, health care, and transportation, as well as to the media that depict them. Merod (1987) decries this situation as one which leaves no vision, will, or commitment to activism. He notes that academic lip service to the oppositional is underscored by the absence of focused collective or politically active intellectual communities. Provoked by the academic manifestations of this problem Di Leonardo (1990) echoes Merod and laments: Has there ever been a historical era characterized by as little radical analysis or activism and as much radical-chic writing as ours? Maundering on about Otherness: phallocentrism or Eurocentric tropes has become a lazy academic substitute for actual engagement with the detailed histories and contemporary realities of Western racial minorities, white women, or any Third World population. (p. 530) Clarke's assessment of the postmodern elevation of language to the "sine qua non" of critical di\scussion is an even stronger indictment against the trend. Clarke examines Lyotard's (1984) The Postmodern Condition in which Lyotard maintains that virtually all social relations are linguistic, and, therefore, it is through the coercion that threatens speech that we enter the "realm of terror" and society falls apart. To this assertion, Clarke replies: I can think of few more striking indicators of the political and intellectual impoverishment of a view of society that can only recognize the discursive. If the worst terror we can envisage is the threat not to be allowed to speak, we are appallingly ignorant of terror in its elaborate contemporary forms. It may be the intellectual's conception of terror (what else do we do but speak?), but its projection onto the rest of the world would be calamitous....(pp. 2-27) The realm of the discursive is derived from the requisites for human life, which are in the physical world, rather than in a world of ideas or symbols.(4) Nutrition, shelter, and protection are basic human needs that require collective activity for their fulfillment. Postmodern emphasis on the discursive without an accompanying analysis of how the discursive emerges from material circumstances hides the complex task of envisioning and working towards concrete social goals (Merod, 1987). Although the material conditions that create the situation of marginality escape the purview of the postmodernist, the situation and its consequences are not overlooked by scholars from marginalized groups. Robinson (1990) for example, argues that "the justice that working people deserve is economic, not just textual" (p. 571). Lopez (1992) states that "the starting point for organizing the program content of education or political action must be the present existential, concrete situation" (p. 299). West (1988) asserts that borrowing French post-structuralist discourses about "Otherness" blinds us to realities of American difference going on in front of us (p. 170). Unlike postmodern "textual radicals" who Rabinow (1986) acknowledges are "fuzzy about power and the realities of socioeconomic constraints" (p. 255), most writers from marginalized groups are clear about how discourse interweaves with the concrete circumstances that create lived experience. People whose lives form the material for postmodern counter-hegemonic discourse do not share the optimism over the new recognition of their discursive subjectivities, because such an acknowledgment does not address sufficiently their collective historical and current struggles against racism, sexism, homophobia, and economic injustice. They do not appreciate being told they are living in a world in which there are no more real subjects. Ideas have consequences. Emphasizing the discursive self when a person is hungry and homeless represents both a cultural and humane failure.

#### Chaloupka uses factual errors and ignores alternate theories --- fails to impact nuclear politics

Andrew Marchant-**Shapiro,** Prof of Sociology & Political Science at Union College, “Review: [untitled]”, The American Journal of Sociology, Vol. 100, No. 1 (Jul., 19**94**), pp. 265-266, JSTOR

As an attempt to deal with "the politics and culture of the atom," Knowing Nukes **falls considerably short of its goal**. This is in large part because the book is not really about understanding what its author terms nucle-arism: "the position taken by the managers and leaders of nuclear states, even if they seldom identify this as an identifiable political stance" (p. xv). Rather, the book is a paean to a theoretical perspective—postmodernism—in which an odd admixture of empirical data and assertions seems to play a primarily illustrative role.

In seven remarkably brief (if tediously sesquipedalian) chapters, Cha-loupka discusses topics ranging from the disappearance of the warrior to computers, robots, Star Wars, and Ronald Reagan. The text is "playful" (in the postmodern sense) in the extreme, which most readers will probably find somewhat annoying. An example of the book's style is found in the paragraph quoted below. Here, Chaloupka has been contrasting subjective and objective (or "external") ironies. The former is the irony perceived by an observer, while the latter inheres in a political system—in this case, nuclearism:

This "external irony" was often misdiagnosed as existentialist absurdity by the American counterculture of recent decades. Playing roles, not always serious about one's own persona, this part of their politics was inadvertently ironist or, rather, was ironist to a point (that point being the now caricatured search for alternative metaphysical ground that marks every enterprise called "New Age"). Taking the frivolous seriously, refusing to do the same for the potentially fatal, renegotiating boundaries through continual reversals (of roles, expectations, perspectives), these amateur ironists briefly experimented with the future of oppositional politics in a postmodern world, [pp. 101-2]

In a volume that purports to take language seriously (or even playfully) this style of writing—**long on jargon and parentheticals, short on content**—is a major deficiency. To this, I must add the following problems: a number of **factual errors** (e.g., Chaloupka calls the Hiroshima bomb, or "nuke," "Thin Man" [p. 46]); a **refusal to seriously consider alternative theoretical perspectives;** **and a lack of any new empirical material.** Finally, Chaloupka has a tendency to write about actions without human agents. While he seldom uses passive voice per se, ideas and theories are often doing things: "More important than the ebb and flow of what only seemed to be an antagonism, a new status and revised techniques of power just began operating and establishing themselves" (p. 68). This situation should make sociologists particularly uneasy.

Given these not inconsiderable problems, is there any reason to read this book? In fact, there are two. First, if you have an interest in the work of Foucault, Derrida, or Baudrillard, you may find this an interesting consideration of their work and the ways in which it relates to society and politics. Second, although the book falls short when taken as a whole, it includes a number of assertions and hypotheses that may be of interest to political sociologists.

While some of these useful parts have appeared elsewhere, Chaloupka occasionally gives them a new spin. He considers questions such as: Why are charges of weakness and appeasement the neoconservative response to discussion of the aftermath of nuclear war? How has the nuclear state managed to control our impressions of the postnuclear world? (Cha-loupka's claim is that antinuclearists have unwittingly assisted the nuclear state in creating an image of nuclear war as something "unspeakable," and therefore have until recently helped to push that entire issue off the agenda.) Why do R2D2 and C3PO come to us as the first pop-culture robots that (who?) are less, rather than more, threatening by their very humanity (in contrast to an earlier decade's HAL9000)?

For me, one of Chaloupka's most interesting suggestions is that we should consider wowparticipation in representative politics (i.e., not voting) not as an expression of apathy but rather as a metapolitical strategy of protest, a point he illustrates with reference to student government. Most students do not participate in student government, he argues, because they realize that student government is largely a joke, an attempt to co-opt rather than to empower the student body. Consequently, their refusal to participate can be read as an extrasystemic protest against co-optation.

Good ideas, alas, do not make a good book. This volume, while well-intentioned, is **crippled by its failure to cohere**. But that may be Cha-loupka's intent, after all. Describing his version of postmodernist analysis by analogy to a map, he writes that "what is most certain about this map is that it shifts unnaturally, reshaping itself and threatening to dissolve in our hands. The map is partial, incomplete, provocative; it fails to represent the entire territory. It is a trickster's map" (p. xv).

#### Deterrence as source of onto-security’s key to acting against aggressive foreign policy

Amir Lupovici 8, Post-Doctoral Fellow Munk Centre for International Studies University of Toronto, Why the Cold War Practices of Deterrence are Still Prevalent: Physical Security, Ontological Security and Strategic Discourse <http://www.cpsa-acsp.ca/papers-2008/Lupovici.pdf>

Since deterrence can become part of the actors’ identity, it is also involved in the actors’ will to achieve ontological security, securing the actors’ identity and routines. As McSweeney explains, ontological security is “the acquisition of confidence in the routines of daily life—the essential predictability of interaction through which we feel confident in knowing what is going on and that we have the practical skill to go on in this context.” These routines become part of the social structure that enables and constrains the actors’ possibilities (McSweeney, 1999: 50-1, 154-5; Wendt, 1999: 131, 229-30). Thus, through the emergence of the deterrence norm and the construction of deterrence identities, the actors create an intersubjective context and intersubjective understandings that in turn affect their interests and routines. In this context, deterrence strategy and deterrence practices are better understood by the actors, and therefore the continuous avoidance of violence is more easily achieved. Furthermore, within such a context of deterrence relations, rationality is (re)defined, clarifying the appropriate practices for a rational actor, and this, in turn, reproduces this context and the actors’ identities.

Therefore, the internalization of deterrence ideas helps to explain how actors may create more cooperative practices and break away from the spiral of hostility that is forced and maintained by the identities that are attached to the security dilemma, and which lead to mutual perception of the other as an aggressive enemy. As Wendt for example suggests, in situations where states are restrained from using violence—such as MAD (mutual assured destruction)—states not only avoid violence, but “ironically, may be willing to trust each other enough to take on collective identity”. In such cases if actors believe that others have no desire to engulf them, then it will be easier to trust them and to identify with their own needs (Wendt, 1999: 358-9). In this respect, the norm of deterrence, the trust that is being built between the opponents, and the (mutual) constitution of their role identities may all lead to the creation of long term influences that preserve the practices of deterrence as well as the avoidance of violence. Since a basic level of trust is needed to attain ontological security,21 the existence of it may further strengthen the practices of deterrence and the actors’ identities of deterrer and deterred actors.

In this respect, I argue that for the reasons mentioned earlier, the practices of deterrence should be understood as providing both physical and ontological security, thus refuting that there is necessarily tension between them. Exactly for this reason I argue that Rasmussen’s (2002: 331-2) assertion—according to which MAD was about enhancing ontological over physical security—is only partly correct. Certainly, MAD should be understood as providing ontological security; but it also allowed for physical security, since, compared to previous strategies and doctrines, it was all about decreasing the physical threat of nuclear weapons. Furthermore, the ability to increase one dimension of security helped to enhance the other, since it strengthened the actors’ identities and created more stable expectations of avoiding violence.

#### ALT DOESN’T SOLVE – NEED TO EVALUATE SHORT-TERM RISKS.

Pierre Hassner 7, Research Director Emeritus At The National Foundation For Political Science In Paris, “Who Killed Nuclear Enlightenment?,” International Affairs 83: 3 (2007) 455-467

Deterrence is still valid in most interstate cases, but it relies on rational actors dominated by the fear of suicide, and its stability is powerfully enhanced by communication between potential adversaries and their awareness of a common interest. All these elements are absent when one or both accepts and welcomes suicide, and when their antagonism, based on cultural or religious opposition, is felt as absolute.

Pre-emption may, in extreme cases, and as a last resort, be the only available course of action (for instance, if Ahmadinejad or someone motivated by similar passions and beliefs were reliably known to hold the ultimate power in Iran and to be in control of nuclear weapons or about to acquire them). But as a rule, all the lessons of Iraq go in the same direction: western intelligence is too uncertain and the potential reactions are too unpredictable but too likely to get out of control to make pre-emption desirable as a central feature of a counter-proliferation strategy.

Protection, including missile defence, should be the order of the day, rather than pre-emption; but its costs are high and its ef ectiveness uncertain, even in the cases where it applies, which do not include a whole series of threats.

It is likely, then, that what George W. Bush has aptly called ‘the crossroads of radicalism and technology’ will continue to pose a mortal threat to our societies. 14

We shall live for ever on an essentially vulnerable planet, where <nightmare scenarios, like Fred Iklé’s ‘Annihilation from within’ in the United States, 15 or the obliteration of a small state surrounded by enemies, like Israel, can never be totally excluded. That does not mean that such scenarios cannot be made more unlikely and less deadly, or even that there is no chance to see them recede to an extremely marginal possibility rather than dominating our lives. But that would require a political and spiritual transformation which cannot come overnight.

Muddling through towards radical changes

It would be ridiculous for this writer to claim the expertise and the imagination necessary to recommend a strategy for minimizing the risks posed by nuclear (or, for that matter, biological) weapons. But I do think that a distinction between the short, the middle and the long term and an emphasis on the political dimension are useful directions to recommend.

In the short term, no grand nuclear bargain or blueprint is realistic. The emphasis has to be, ﬁ rst, on ﬁ ghting proliferation from case to case through a mixture of incentives and sanctions, as in the case of Libya and, it is to be hoped, North Korea, and through a tighter control of ‘loose nukes’, of trade in nuclear materials and technology, etc.; second, on strengthening extended deterrence and missile defence wherever possible for the more exposed potential victims (like Israel and the Gulf states in the case of Iran), with due regard to the dangers of excessive visibility and of misinterpretation; and, last but not least, on initiating a change in the political and strategic atmosphere by actively pursuing tangible progress on regional conﬂ icts and avoiding escalation> and polarization.

In the medium term, settling or at least de-escalating most or anyway some of the political conﬂ icts that threaten anything from civil war to nuclear conﬂ ict, in the Middle East, in South Asia or in the Taiwan Straits, may go hand in hand with arms control measures ranging from conﬁ dence-building and communication between possible adversaries to nuclear weapons-free zones or, at least, a balance of ‘threshold powers’ or ‘latent nuclears’. In parallel, a change in the posture of nuclear powers, in the direction indicated by John Deutch’s article on ‘Rethinking nuclear strategy’, would ensure that ‘Instead of treating non-proliferation and the maintenance of a nuclear deterrent as mutually exclusive, the United States must shape and manage its nuclear force in a way that does both.’ 16

If the current atmosphere of distrust and resentment is alleviated and if certain depolarizing realignments take place in the diplomatic ﬁ eld, accompanied by institutional reforms at the level of international organizations which would give their proper institutional weight to all the emerging powers, proposals for entrusting nuclear enrichment to an international authority may at last have a chance.

In the long run (if we survive the short and middle term), a renegotiation of the nuclear Non-Proliferation Treaty on a basis which overcomes its present hierarchical and unbalanced character may be undertaken.

The essential point is to avoid handling proliferation in a vacuum. The classical triad—deterrence, arms control, disarmament—comprises not three alternatives or three successive stages but a combination of three dimensions, none of which can be isolated from the others even though their respective priorities may dif er according to circumstances.

Even more important is the impossibility of separating political relations and arms control or disarmament. <The experience of the Cold War, with all its limits, is a ﬁ tting example. Some experts, including Walter Lippmann, Hans Morgenthau and perhaps Charles de Gaulle, thought a European settlement could be reached with the Soviet Union. Others (including some of the same people at dif erent times) were terriﬁ ed by the dangers of the arms race and nuclear weapons and at the end of the Cold War called for general disarmament or world government.

Raymond Aron maintained that the danger came less from the weapons than from the nature of the Soviet regime, and that the danger of a Third World War would fade away if the regime changed. He was right. But this positive result would not have been possible without the combination of western military and economic superiority and of political detente, with Reagan’s readiness to engage Gorbachev. By contrast, the Cuban regime is still there, in spite of all attempts to overthrow it by invasion or blockade.

Aron’s formula, ‘Peace impossible, war improbable’, was true for the Cold War. Between the fall of the Berlin Wall and that of the Twin Towers, peace seemed more possible. Today, war seems more likely: the danger of a Third World War between two superpowers has receded, but violence is spreading in many forms, and hatred and incomprehension between apocalyptic terrorists or rebellious populations and the West are more radical still than they were between the West and the declining communist regime. The only hope is that, now, too, containment and evolution will improve the situation in the long run. But this will only happen if the search for order and peace is political as well as strategic.> This, after all, is the most permanent lesson of William Walker’s work.

# 1AR

Terrorist discourse is key to prevent terrorism

#### LEEMAN, Assistant Professor of Communication Studies at North Carolina, 1993

#### Richard W., The Rhetoric of Terrorism and Counterterrorism, p. 197

As a society, we "are what we eat." When the public dialogue is  
impoverished, so is public knowledge and public policy. As Berns wrote,  
we cannot do what we cannot say. If we cannot talk about terrorism  
dispassionately, if we cannot consider those policies we may later reject,  
if we must view the world through an "either-or" lens--our understand­  
ing of the problem will be diminished. A diminished understanding will  
in turn produce diminished effectiveness. In the long term, diminished  
effectiveness will serve to weaken the foundation of government and  
**increase the incidence of terrorism**. We may not need to achieve the ideal  
of democratic rhetoric in order to preserve the democratic process.  
However, the closer we come to that goal, I contend, the greater our  
assurance of success.

#### No climate fatigue – the media is bombarded with anti-warming messages now – the plan’s representations mobilize public response

Romm 12 (Joe, Fellow at American Progress and is the editor of Climate Progress, which New York Times columnist Tom Friedman called "the indispensable blog" and Time magazine named one of the 25 “Best Blogs of 2010.″ In 2009, Rolling Stone put Romm #88 on its list of 100 “people who are reinventing America.” Time named him a “Hero of the Environment″ and “The Web’s most influential climate-change blogger.” Romm was acting assistant secretary of energy for energy efficiency and renewable energy in 1997, where he oversaw $1 billion in R&D, demonstration, and deployment of low-carbon technology. He is a Senior Fellow at American Progress and holds a Ph.D. in physics from MIT, 2/26, “Apocalypse Not: The Oscars, The Media And The Myth of ‘Constant Repetition of Doomsday Messages’ on Climate”, <http://thinkprogress.org/romm/2012/02/26/432546/apocalypse-not-oscars-media-myth-of-repetition-of-doomsday-messages-on-climate/#more-432546>)

The two greatest myths about global warming communications are 1) constant repetition of doomsday messages has been a major, ongoing strategy and 2) that strategy doesn’t work and indeed is actually counterproductive!¶ These myths are so deeply ingrained in the environmental and progressive political community that when we finally had a serious shot at a climate bill, the powers that be decided not to focus on the threat posed by climate change in any serious fashion in their $200 million communications effort (see my 6/10 post “Can you solve global warming without talking about global warming?”). These myths are so deeply ingrained in the mainstream media that such messaging, when it is tried, is routinely attacked and denounced — and the flimsiest studies are interpreted exactly backwards to drive the erroneous message home (see “Dire straits: Media blows the story of UC Berkeley study on climate messaging”)¶ The only time anything approximating this kind of messaging — not “doomsday” but what I’d call blunt, science-based messaging that also makes clear the problem is solvable — was in 2006 and 2007 with the release of An Inconvenient Truth (and the 4 assessment reports of the Intergovernmental Panel on Climate Change and media coverage like the April 2006 cover of Time). The data suggest that strategy measurably moved the public to become more concerned about the threat posed by global warming (see recent study here).¶ You’d think it would be pretty obvious that the public is not going to be concerned about an issue unless one explains why they should be concerned about an issue. And the social science literature, including the vast literature on advertising and marketing, could not be clearer that only repeated messages have any chance of sinking in and moving the needle.¶ Because I doubt any serious movement of public opinion or mobilization of political action could possibly occur until these myths are shattered, I’ll do a multipart series on this subject, featuring public opinion analysis, quotes by leading experts, and the latest social science research.¶ Since this is Oscar night, though, it seems appropriate to start by looking at what messages the public are exposed to in popular culture and the media. It ain’t doomsday. Quite the reverse, climate change has been mostly an invisible issue for several years

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and the message of conspicuous consumption and business-as-usual reigns supreme.¶ The motivation for this post actually came up because I received an e-mail from a journalist commenting that the “constant repetition of doomsday messages” doesn’t work as a messaging strategy. I had to demur, for the reasons noted above.¶ But it did get me thinking about what messages the public are exposed to, especially as I’ve been rushing to see the movies nominated for Best Picture this year. I am a huge movie buff, but as parents of 5-year-olds know, it isn’t easy to stay up with the latest movies.¶ That said, good luck finding a popular movie in recent years that even touches on climate change, let alone one a popular one that would pass for doomsday messaging. Best Picture nominee The Tree of Life has been billed as an environmental movie — and even shown at environmental film festivals — but while it is certainly depressing, climate-related it ain’t. In fact, if that is truly someone’s idea of environmental movie, count me out.¶ The closest to a genuine popular climate movie was the dreadfully unscientific The Day After Tomorrow, which is from 2004 (and arguably set back the messaging effort by putting the absurd “global cooling” notion in people’s heads! Even Avatar, the most successful movie of all time and “the most epic piece of environmental advocacy ever captured on celluloid,” as one producer put it, omits the climate doomsday message. One of my favorite eco-movies, “Wall-E, is an eco-dystopian gem and an anti-consumption movie,” but it isn’t a climate movie.¶ I will be interested to see The Hunger Games, but I’ve read all 3 of the bestselling post-apocalyptic young adult novels — hey, that’s my job! — and they don’t qualify as climate change doomsday messaging (more on that later). So, no, the movies certainly don’t expose the public to constant doomsday messages on climate.¶ Here are the key points about what repeated messages the American public is exposed to:¶ The broad American public is exposed to virtually no doomsday messages, let alone constant ones, on climate change in popular culture (TV and the movies and even online). There is not one single TV show on any network devoted to this subject, which is, arguably, more consequential than any other preventable issue we face.¶ The same goes for the news media, whose coverage of climate change has collapsed (see “Network News Coverage of Climate Change Collapsed in 2011“). When the media do cover climate change in recent years, the overwhelming majority of coverage is devoid of any doomsday messages — and many outlets still feature hard-core deniers. Just imagine what the public’s view of climate would be if it got the same coverage as, say, unemployment, the housing crisis or even the deficit? When was the last time you saw an “employment denier” quoted on TV or in a newspaper?¶ The public is exposed to constant messages promoting business as usual and indeed idolizing conspicuous consumption. See, for instance, “Breaking: The earth is breaking … but how about that Royal Wedding?¶ Our political elite and intelligentsia**,** including MSM pundits and the supposedly “liberal media” like, say, MSNBC, hardly even talk about climate change and when they do, it isn’t doomsday. Indeed, there isn’t even a single national columnist for a major media outlet who writes primarily on climate. Most “liberal” columnists rarely mention it.¶ At least a quarter of the public chooses media that devote a vast amount of time to the notion that global warming is a hoax and that environmentalists are extremists and that clean energy is a joke. In the MSM, conservative pundits routinely trash climate science and mock clean energy. Just listen to, say, Joe Scarborough on MSNBC’s Morning Joe mock clean energy sometime.¶ The major energy companies bombard the airwaves with millions and millions of dollars of repetitious pro-fossil-fuel ads. The environmentalists spend far, far less money. As noted above, the one time they did run a major campaign to push a climate bill, they and their political allies including the president explicitly did NOT talk much about climate change, particularly doomsday messaging¶ Environmentalists when they do appear in popular culture, especially TV, are routinely mocked.¶ There is very little mass communication of doomsday messages online. Check out the most popular websites. General silence on the subject, and again, what coverage there is ain’t doomsday messaging. Go to the front page of the (moderately trafficked) environmental websites. Where is the doomsday?¶ If you want to find anything approximating even modest, blunt, science-based messaging built around the scientific literature, interviews with actual climate scientists and a clear statement that we can solve this problem — well, you’ve all found it, of course, but the only people who see it are those who go looking for it.¶ Of course, this blog is not even aimed at the general public. Probably 99% of Americans haven’t even seen one of my headlines and 99.7% haven’t read one of my climate science posts. And Climate Progress is probably the most widely read, quoted, and reposted climate science blog in the world.¶ Anyone dropping into America from another country or another planet who started following popular culture and the news the way the overwhelming majority of Americans do would get the distinct impression that nobody who matters is terribly worried about climate change. And, of course, they’d be right — see “The failed presidency of Barack Obama, Part 2.¶ It is total BS that somehow the American public has been scared and overwhelmed by repeated doomsday messaging into some sort of climate fatigue. If the public’s concern has dropped — and public opinion analysis suggests it has dropped several percent (though is bouncing back a tad) — that is primarily due to the conservative media’s disinformation campaign impact on Tea Party conservatives and to the treatment of this as a nonissue by most of the rest of the media, intelligentsia and popular culture.

#### Our theory accurately accounts for all wars in the last 100 years

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Running the hypothesis for the principal wars of the twentieth century does seem to provide support. While until recently the origins of World War I were more actively debated, there seems increasing support for the proposition, deeply believed by President Woodrow Wilson and enshrined in the Versailles Treaty, that nondemocratic [\*396] Germany and Austria were the aggressors. 162 The key is understanding that the war really began on the Eastern Front with an aggressive Austrian attack against Serbia, enthusiastically encouraged by Germany. That aggression in turn precipitated a cascade of Russian mobilization and Germany's declaration of war against France, Russia, Luxembourg, and Belgium. Even after the attack on Serbia, France ordered its troops to pull back from the border with Germany. And democratic Italy, a formal ally of the Central Powers, declared that it was only committed to a war of defense and accordingly pulled out of the coalition and instead joined the Entente Powers. Contrary to the oft-repeated arguments about World War I being caused by a tightening of competing alliances, there was no real alliance with Britain, except at a low level in military to military planning, and the British would not even tell the French that they would assist them in the event of German invasion because it might leak to the Germans! Much less did they seek to communicate such a pledge to Kaiser Wilhelm II. Indeed, we know that even late in the crises, both the Kaiser and Foreign Secretary Gottlieb von Jagow believed that Britain would remain neutral. In turn, the lack of British willingness to publicly join forces with France in deterring Germany reflected a split within the Liberal leadership. The prime minister, H. H. Asquith, confided to his girlfriend: "I suppose a good 3/4 of our own party in the House of Commons are for absolute non-interference at any price." 163 And as to the initial attack on Serbia, the Kaiser felt the risks of Russian intervention were low since he believed Russia was in no way prepared for war. This understanding of the aggressive intentions of Germany's leaders in World War I, even if they did not seek the kind of world war that resulted, is now widely accepted in Germany, as reflected, for example, in the work of the [\*397] German historian Fritz Fischer. 164 Paradoxically, some in the United States, France, and Britain seem to have accepted the arguments to the contrary poured out by the special section of the German Foreign Office set up after the war to challenge the imputation of German war guilt. 165 World War II is, on the Western Front, a poster child for the paradigm. 166 The paradigm also meets the origins of the war in the Pacific theater as well, where the government of Tojo intentionally set out on an aggressive "Southern Strategy" following Japan's aggression against China and growing resource concerns from the resulting sanctions. No doubt deterrence, which might have been expected from Britain, France, and the Netherlands in the area of Japanese expansion, was substantially reduced by the then perceived defeat of all three powers by Hitler. 167 The United States seemed the only real obstacle to the proposed hegemony, and many factors suggested to Japanese leaders that the United States could be effectively removed by a major strategic blow against the fleet concentrated at Pearl Harbor. 168 Whatever the debate about the comparative roles of Stalin and Kim Il Sung in the Korean invasion, it is clear that there was almost no deterrence before the attack. U.S. military forces, except for a 500-man training team, were withdrawn from South Korea in 1949. Congress had refused to adequately arm the government of South Korea as requested by our ambassador and military command in Korea, and both Secretary [\*398] of State Dean Acheson and General Douglas MacArthur, as Supreme Allied Commander Far East, had made public statements implying that Korea was beyond the United States defense perimeter. 169 Indeed, these statements were consistent with the views of the Joint Chiefs in the prevailing climate of limited military resources and focus on the Soviet threat in Europe. Kim Il Sung is said to have sought to persuade Stalin that the United States would not intervene because the attack would be a decisive surprise attack lasting only a few days or weeks. And the overall strategic equation had just been drastically changed by the 1949 Soviet explosion of their first atomic weapon and the Communist takeover of China. 170 Moreover, if the United States had not fought to prevent a Communist takeover of China, why would it do so in Korea? The Vietnam morass cannot be quickly summarized, but it should be noted that the defeat of South Vietnam came about only after the Paris Accords had produced a Nobel Peace Prize for both sides and that, following the American force withdrawal, congressional abandonment of Vietnam, and collapse of the presidency in Watergate, a totalitarian North launched a twenty-two division Korean style regular army invasion of the South. The absence of deterrence was so complete that North Vietnam kept back only its anti-coup division around Hanoi. And the lack of American will for reengagement was so total that President Ford was not even able to get both houses of Congress to agree on a simple authorization to use U.S. forces for the orderly evacuation of Americans from Saigon. 171 The Iran-Iraq War and the Gulf War also closely fit the hypothesis. In both, an aggressive Saddam Hussein, sensing an absence of effective deterrence, initiated an attack. The collapse in Iranian deterrence, which lured Hussein in the war against Iran, was a product of the domestic turmoil following the fall of the Shah. Kuwait simply seemed an easy target after the bitter experience in the war with Iran. And, while there could have been signals from the United States or Britain to give Saddam pause before the invasion of Kuwait, no such signals [\*399] materialized. 172 As the dramatic reduction in deterrence accompanying the Iranian revolution illustrates, it is possible that the apparently greater risk of war for nations undergoing a transition to democracy, postulated by Professors Mansfield and Snyder in their 1995 Foreign Affairs article "Democratization and War," may result, at least in part, from the dramatic reduction in levels of deterrence in many such settings. 173 Prior to the ongoing revolution in the former Soviet Union, for example, levels of deterrence from centralized state power made a serious Chechnya insurrection unlikely. Conversely, the Gulf War illustrates yet another example of how effective deterrence may have worked to prevent Saddam Hussein from using chemical weapons against the coalition to liberate Kuwait, despite his earlier use of such weapons against Iran and even his own people. George Bush and Margaret Thatcher clearly warned Hussein that the coalition would not tolerate the use of weapons of mass d

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estruction. In a letter to Hussein, Bush said, "You and your country will pay a terrible price if you order unconscionable acts of this sort." 174 A UN Special Commission on Iraq later found copies of this Bush letter all over the country. And a 1994 European Union Assembly report found that the presence of nuclear weapons on U.S. aircraft carriers in the Gulf may well have deterred Iraq. The failure of the second phase of the UN operation in Somalia and subsequent failed UN efforts in Rwanda also reflect an absence of effective deterrence against aggressive nondemocratic regimes. The first phase of the Somalia operation, undertaken by President George Bush at [\*400] the urging of Secretary General Boutros Boutros-Ghali, may have saved as many as a million Somalis from starvation as feuding clan leaders sought to use starvation as a weapon in their political struggles. Following withdrawal of the bulk of U.S. forces, however, Mohamed Farrah Aidid and his Habr Gidr clan began attacking UN forces in a bid to take control rather than participate in a UN brokered coalition government. On June 24, 1993, twenty-four Pakistani UN peacekeepers were killed, apparently by Aidid's forces. These attacks occurred in a setting of substantially reduced deterrence. Understandably, UN leadership, supported by the United States, sought to hold Aidid responsible and to move forward with the mission. Subsequently, after the United States led a special operation in Mogadishu against Aidid's forces that resulted in two MH-60 Black Hawk helicopters shot down and eighteen U.S. soldiers dead, President Bill Clinton ended the effort to control Aidid, rather than commit the forces necessary to decisively carry out the Security Council mandate. The result, in a setting of already low deterrence, was a collapse of the UN mission. One week after the battle of Mogadishu, in a context of wide press attention given in the aftermath of that battle to the body of an American soldier dragged through the streets, the U.S.S. Harlin County, on a UN peacekeeping mission to Haiti, was turned away from the dock in Port-au-Prince by an orchestrated "riot" of fewer than 200. 175 The detrimental consequences for UN operations continued. General Marrack Goulding, the UN Under-Secretary-General for Political Affairs, informed me that following Clinton's decision to stand down U.S. forces in Somalia, UN peacekeepers around the world were greeted with the cry: "Welcome to Mogadishu." It was in that climate that autocratic Hutu leaders in Rwanda concluded that killing a few UN peacekeepers would cause them to go home and give the Hutu extremists a free hand against the Tutsis. They promptly attacked and killed Belgian peacekeepers and were rewarded when Belgium followed Clinton's lead and withdrew their forces. At that point no further consensus could be developed in the Security Council to intervene against the developing genocide in Rwanda. We will never know what would have happened had Clinton stuck with the UN mandate in Somalia and committed U.S. forces to overwhelmingly prevail against Aidid and his apparent Osama bin Laden backers. We do know, however, that the collapse of the UN operation in Somalia and the subsequent genocide in Rwanda took place in a setting of rapidly [\*401] decreasing deterrence against nondemocratic regimes. 176 Non-war settings, or "the dogs that did not bark," also seem generally consistent with the hypothesis. Thus, neither Canada nor Switzerland seek to militarize their borders with the United States or France, respectively, despite overwhelming military (including nuclear) superiority by their large and contiguous democratic neighbors. Nor do the citizens of the United States fear the French or British nuclear deterrents, despite their ability to devastate the United States - vice versa for the citizens of France and Britain. And NATO, where substantial levels of conventional and nuclear deterrence are present, is a tight alliance that may well have avoided major war wherever its pre-commitments were clear, as was certainly true for any conventional invasion of the core of NATO. Analysis of abrupt changes in the two elements in the war synergy also lends support to the hypothesis. As examples, the ongoing shift in the former Soviet Union from totalitarianism toward democracy produced changes of enormous consequence, many of which would have been unthinkable under the former Soviet regime. These include the fall of the Berlin Wall, the reunification of Germany, the dissolution of the Warsaw Pact, the expansion of NATO to the East, dramatic reductions in military forces, the sale by Russia to the U.S. of fissionable material recycled from Soviet nuclear weapons, and at least a partial removal of the old Soviet automatic veto in the Security Council. Moreover, the spillover effects on arms control from these governmental changes in the former Soviet Union were far greater than the converse spillover from arms control on U.S./Soviet political relations. And, as examples with respect to levels of deterrence, it has already been noted that the internal turmoil following the Iranian revolution produced a rapid decrease in deterrence and ultimately a mistaken attack by Saddam Hussein. Conversely, once coalition forces had been committed to defend Saudi Arabia in Operation Desert Shield, deterrence against a full scale Iraqi attack on that country increased [\*402] dramatically. Even in the absence of Desert Storm, the threat had likely passed for Saudi Arabia. Similarly, the partly internal, partly international wars in the ongoing breakup of the former Yugoslavia seem to be a product, at least partly, of a variety of factors reducing deterrence that was formerly present under Tito's iron rule. It might also be noted that the absence of direct great power war since World War II - the longest such period in five centuries - coincides with the powerful increase in deterrence from nuclear forces.