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Inherency/Harms

Space Now

Space investment growing now

Major **Willson** (B.A., C.W. Post College; J.D., Touro School of Law; LL.M., The Judge Advocate General School) is the International & Operational Law Attorney, Army Space Command, Colorado Springs, Co. 2001 (An Army View of Neutrality in Space: Legal Options for Space Negation, lexis)

Space is rapidly becoming a very profitable and congested frontier. As of January 29, 1999, there were 2561 satellites orbiting Earth, and 2671 as of June 21, 2000.¹⁸ The U.S. has 741 satellites registered and the Commonwealth of Independent States (Russia et al.) has 1335. The remaining 595 satellites belong to smaller countries and international organizations.¹⁹ These figures are deceiving. Satellites may be owned and operated by a private company, but must be listed on the registry²⁰ of the [*180] country from which they were launched.²¹ Well over 250 of the 2671 satellites in orbit in June 2000 were operated by international organizations, non-governmental organizations, or private corporations. The number of satellites in orbit has more than doubled in the last three years, and will probably be around 10,000 in ten years.²² Today, fourteen years after this paragraph was written, the commercial satellite market is booming, with no apparent end in sight.

US already committed to space exploration and militarization

Savit et al, counsel, Blank Rome Comisky & McCauley LLP, **Summer 2002** (PUBLIC INTERNATIONAL LAW: Aviation and Aerospace: Law and Policy Developments The International Lawyer Summer, 2002, lexis)

Over the past several years the continuing trend of the world in general was to focus more and more on outer space and its uses as access to space became more available through both intergovernmental and private sector efforts. International treaty-based organizations--formed in an era where no one independent nation was fully capable of dominating space access or exploitation--gave way to a privatization overhaul as commercial space startups became more established and began successfully challenging the state-sponsored monopolies that until recently dominated the markets they had been created to establish.

Entities began seeking ways to exploit and market outer space, from selling pieces of the moon to taking advance payments for private citizen seating on space transports yet to be built (or, for that matter, found technologically feasible). The U.S. Government was no exception: the U.S. military had made known in 2000 its intention to put outer space and its use at the forefront of its focus in formulating its strategy for the future of the U.S. national security. n36 Moreover, in the early days of his administration, President George W. Bush announced his intentions to seek the establishment of a national missile defense shield, leading U.N. Secretary-General Kofi Annan to expressly urge that space exploration be devoted solely to peaceful pursuits, such as environmental monitoring, not to the waging of war.

Space Education Good Now

The USAF's space training is of the highest quality and ensures space dominance.

Thomas B. **Joslyn**, Assistant Professor, U.S. Air Force Academy; B.S., U.S. Air Force Academy; M.S., University of North Dakota, and Kenneth E. **Siegenthaler**, Associate Professor of Astronautics, U.S. Air Force Academy; B.S in the Arts & Sciences, U.S. Military Academy; B.S. in Physics, University of Utah; M.S., Ph.D. in Engineering Physics, Air Force Institute of Technology, **2005** (“Student Design, Development, and Operation of Sounding Rockets at the United States Air Force Academy,” <http://www.usafa.af.mil/df/dfas/Papers/20042005/Student%20Design,%20Development,%20and%20Operation%20of%20Sounding%20Rockets%20at%20the%20United%20States%20Air%20Force%20Academy%20-%20Joslyn.doc>)

Of course, all programs are judged on their results. The physical result of the FalconLAUNCH program is significant. A unique solid propellant grain design has been developed that will reduce the G-loading below that of existing sounding rockets. This will ultimately allow more fragile and sensitive payloads to be flown. The cadets do what some nations and no other undergraduate university can do! The real product of the FalconLAUNCH program, however, is the professional Air Force officers who have had the “Learning Space by Doing Space” experience while at the Air Force Academy. The exposure to solving ill defined problems in the FalconLAUNCH program prepares them for the challenges of a professional military career. The lessons learned and pride of ownership in the program are the finishing touches on officers joining the cadre of space professionals who make the United States Air Force the world’s preeminent air and space power. That being said, there is no reason why a similar program at a civilian university couldn’t provide the same systems engineering capstone experience to their undergraduate or graduate programs so valuable to young engineers embarking on their careers.

Air Force Solves Now

Air Force already has separate programs for air and space operations as per the Space Commission recommendations

Benjamin S. Lambeth, 2003, (RAND Sen. Staff, Mastering the Ultimate High Ground, Pg. 164)

Indeed, the Space Commission's recommendations and Secretary Rumsfeld's determination to act on them may prove, in the long run, to have been crucial pivots for resolving at least a portion of the nation's military space funding predicament. Those recommendations led to a number of important-even game-changing-breakthrough developments in the Air Force's interest. For one thing, they provided the Air Force with executive-agent authority over all U.S. military space activities, as well as the improved budget-tracking mechanism for space that went along with that authority-two hitherto elusive goals the Air Force had coveted for decades. They also gave the Air Force a new mission responsibility: That service now has two assigned mission areas, air and space, an outcome far preferable to the single "aerospace" mission area that not only hindered the development of a robust space doctrine but also needlessly compounded the Air Force's space funding dilemma.

The Air Force will inevitably solve for the aff

Benjamin S. Lambeth, 2003, (RAND Sen. Staff, Mastering the Ultimate High Ground, Pg. 165)

In arguing the case for the evolution of a full-fledged "space and air force" within the confines of the existing Air Force, one thoughtful Air Force space professional visualized such a national force as follows: "If space-based force application approaches the full potential of its technological capabilities (i.e., the ability to find, fix, track, and destroy virtually anything in the terrestrial environment), the debate over a separate space service will become obsolete because air power, as we understand it today, will become obsolete. Space power will be able to do virtually everything that air power does today-and do it faster and with less risk. Predominantly space forces (with air in an auxiliary role) will subsume the roles and missions of air forces, and the reins of power within the U.S. aerospace force will, by rights, transfer from the combat pilot of today to the space operator of tomorrow.⁶² Similarly, former CINCSPACE General Estes has predicted that "over time, the projection air mission will continue to migrate to space, and the Air Force will become heavier on space and lighter on projection air"-a forecast that precisely reflects the logic of the 1996 Corona formulation.⁶³ The one drawback to this otherwise bold vision, and it is an important one, is that even if space based forces eventually acquire combat capabilities of such caliber by the mid-21st century, there will still be mobility and lift functions, as well as surveillance and attack functions, that can only be performed by air assets. That being the most plausible prospect for at least the midrange future, although one can readily imagine the Air Force evolving naturally into a transitional "air and space force," a more fully developed "space and air force" seems counterintuitive--almost analogous to the tail wagging the dog.

Space commission solves now

The space commission is being implemented and addresses our space mil needs.

David **Desrocher**, President and CEO of Situational Awareness Inc., **2005** (Advances in the Astronautical Sciences, Transforming Space Surveillance to Meet Today's Space Superiority Needs, pgs. 1-2)

Vision and planning documents outlining major transformation needs in the DoD existed prior to the 9/11 attack on the U.S. The impact of that event on transformation plans has been to increase the urgency of implementing some changes and of developing some new capabilities, though some aspects of transformation have also been delayed by the Global War on Terrorism (GWOT).

In the space domain, a key planning document was US Space Command's Long Range Plan (LRP). Signed out in March of 1998 by then CINCSPACE General Howell M. Estes III, the LRP captured both a vision of where we needed to be in the year 2020 and a roadmap of how to get there. While dismissed as "just another document" by many since then, the LRP continues to track well with goals, programs and activities in space mission areas.

In the area of space surveillance (referred in the document as Surveillance of Space, a component of "Control of Space"), the key tasks (Figure 1) and goals for 2020 were quite ambitious. Real time characterization of High Interest Objects (HIOs) would need to go from 0% capability in 1998 to 100% capability by 2020 (50% by some time between 2005 and 2012). Capability for precise detection and tracking of 30cm-sized objects at LEO and GEO in 1998 would need to become 10cm and 20cm respectively between 2005 and 2012, improving to 1cm and 10cm by 2020. Locations would need to be determined to within 500cm at LEO and 2km at GEO in the mid-term, moving to 10m and 100m respectively by 2020. Timely surveillance of HIOs would go from days and hours in 1998 to Near Real Time (NRT) by 2020. Catalog and monitoring functions would move from predictive to NRT in the same time period.¹

The importance of citing these performance goals is to set the stage for understanding why we need to change the way space surveillance capability development and deployment progresses in order to meet such goals and timelines.

In concert with the LRP, subsequent Air Force Space Command (AFSPC) Strategic Master Plans (SMPs) have included programmatic planning for meeting desired capabilities to include enhancing our performance in space surveillance.

On January 11, 2001, the "Report of the Commission to Assess United States National Security Space Management and Organization"² was released. Led by Donald Rumsfeld from its inception until December of 2000 when he was nominated as Secretary of Defense (SECDEF), the Commission assessed the current state of U.S. space and outlined the required role, objectives, organization and management of National Security Space. Rumsfeld's confirmation as SECDEF established this "Space Commission Report" as a fundamental reference for the transformation of space. Regarding space surveillance, the report reaffirmed the goals of the LRP, stating the following:

"...the U.S. must be able to identify and track much smaller objects in space than it can track today...An improved space surveillance network is needed to reduce the chance of collision between satellites, the Space Shuttle or the International Space Station and the thousands of pieces of space debris orbiting the earth. It will also have to track objects deeper in space, such as asteroids or spacecraft. And to reduce the possibility of surprise by hostile actors, it will have to monitor space activity."

Space commission solves now

Space Commission reforms solve the aff

Benjamin S Lambeth, 2003(Rand Sen. Staff. Mastering the Ultimate High Ground, 128-9)

Fortunately for the Air Force, in rejecting the aerospace construct, the Space Commission in effect gave the Air Force something no other service had ever before been granted, namely, two formally mandated mission areas-air and space. The commission also acknowledged, in its recommendation of a Major Force Program (MFP) budget category for space, that the space mission rightly demanded dedicated organizational oversight and funding. Finally, it provided what the Air Force had yearned for without fulfillment for more than, 10 years, namely, formal designation as the nation's executive agent for military space. With the Space Commission's findings navy published and Secretary Rumsfeld committed to implementing the hulk of its recommendations, the Air Force has lately found itself1 % with respect to space somewhat in the unexpected position of the proverbial dog that chased a truck for years to no avail and finally caught it. Now it must decide what to do with it.

Solvency

Alt Cause – Recruitment

Multiple alternate causes for personnel shortages, and serious shortages in non-military space sectors as well.

Stephen P. Randolph, 2002, National Defense university,

http://www.ndu.edu/inss/books/Books_2002/Transforming%20Americas%20Mil%20-%20CTNSP%20-%20Aug%202002/14_ch12.htm,

Sometimes termed the *quiet crisis* of the U.S. space program, workforce issues face the space community in every sector and every skill set. The community has evolved into a bimodal age distribution, with the wave of people who entered the space world during the glory days of the Apollo Program now on the verge of retirement. There is a serious demographic gap where their successors should be found. The problems range across the military, civil, and commercial space sectors, as more attractive opportunities open up in other industries. The acute pressures of a few years ago have been relieved, as people who had left the industry to seek their fortunes in the Internet startup world have drifted back. But over the long run, broader issues of job satisfaction and compensation will have to be faced to ensure that the right people remain in this community.

Neg—space corps

You don't solve bureaucracy—a new branch of the military will face the same problems as the status quo

Bob Smith, senator, 1999 (Air Power Journal, The Challenge of Space Power, <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj99/spr99/smith.html>)

As with any other major change, there are risks. A separate service would not be immune to bureaucratic stagnation and the suppression of new ideas as leaders seek to achieve a single “vision” and unanimity behind it. Unfortunately, unity of bureaucratic effort often seeks to avoid competition of ideas—the very competition we need if we are to learn how to make new things and how to do new things. There is no guarantee that the initial vision—which ever one wins in bureaucratic competition—would be the most effective in real combat against a wide range of adversaries. A separate service will face coordination problems with the existing services as it seeks to integrate space concerns into the Army, Navy, Marine Corps, and Air Force operational concepts, although the Goldwater-Nichols Department of Defense Reorganization Act should help reduce the magnitude of this problem. A separate service would surely add a level of bureaucracy and associated costs—although this would be offset some-what by the consolidation of existing functions and commands within the new service. Of course, there would be decisions to make about which commands and functions to place under a new space service. I would personally struggle, for example, with the question of which ballistic missile defense programs to include.

Reorganization fails—inefficient and has high overhead costs

Ralph Milsap, pres. Advance Strategies Inc., and D. B. Posey, senior analyst A.F. Spec. Ops. Command (Organizational Operations for the Future Aerospace Force, <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj00/sum00/millsap.htm>)

Although well conceived, the pursuit of a new organization dedicated to space is premature. Based on historical precedent of past DOD organizations, space does not meet the test for independence. Reorganization does not address all of the critics' concerns, and in some cases may have the opposite effect. Reorganization will incur significant overhead expenditures, further stressing limited DOD resources. Critics argue that the Air Force mission has reached a crossroads of air and space operations. Pointing to the post-World War II reorganization that created a new organization with new capabilities, some in Congress believe the time has come for the Air Force to relinquish its claim to space—yielding to a new organization dedicated to space power. Supporters of integrating air and space, however, argue that the current state of US space capabilities is more akin to the pre-World War I era. Today, the space component of the aerospace mission is defined in terms of supporting terrestrial missions: surveillance, targeting, communications, and navigation. The focus of this effort is on earthbound missions for the foreseeable future. When military operations become concerned with effects in space, then they may warrant the establishment of a space force. Until then, the integration of space-support missions with existing Air Force infrastructure and capabilities is the more efficient organizational model.

Neg—space corps

Space corps hurts hegemony—lack of warfighting experience

Ralph Milsap, pres. Advance Strategies Inc., **and** D. B. Posey, senior analyst A.F. Spec. Ops. Command (Organizational Operations for the Future Aerospace Force, <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj00/sum00/millsap.htm>)

Such an organization would focus DOD space operations—but with prohibitive implementation and operational overhead costs. As the junior service, the Space Force would probably have less political clout than other service components, facing stiff challenges to prove its ability to develop, field, and successfully demonstrate its independent war-fighting capability. The organization would complicate the new focus on joint operations by adding a fifth service—adding to the complexity of integrating space into joint operations. Stove-piped acquisition processes and operational control, with an emphasis on space control versus space exploitation, would further complicate the joint mission. The Space Force would lack the in-depth, war-fighting perspective and experience found in the other services. This fact, in combination with the continuing requirement to provide space support to the other service components, would hinder further maturing as an independent organization. Finally, and most significantly, the development of an independent Space Force might signal to the rest of the world that the United States intends to weaponize space.

Working through the Air Force is best—new branch will fail

Ralph Milsap, pres. Advance Strategies Inc., **and** D. B. Posey, senior analyst A.F. Spec. Ops. Command (Organizational Operations for the Future Aerospace Force, <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj00/sum00/millsap.htm>)

Independence is not appropriate for space today. The Air Force was established as an independent force when airpower had at least reached adolescence—only after combat-tested technology, doctrine, and leadership were well established. Military space is still in its infancy, with no unique mission, untested doctrine and personnel, and unfinished technology. Military space capabilities contribute to all levels of military activity and conflict but have yet to evolve into a full-spectrum, war-fighting force. The US experience suggests that space should be allowed to mature within an established parent organization to determine whether it can develop and refine a unique war-fighting capability. Aerospace integration is the most appropriate model for managing space today. This model allows for development of space capabilities within an established organization—like the US Army Air Corps of the early 1940s. It also concentrates space spending on people and systems rather than on overhead. Historical defense reorganizations and congressional goals suggest that the aerospace-integration approach is the sensible option for best managing the military space mission today.

Separate space corps unnecessary—not enough qualified candidates

Richard Moorehead, U.S. Army Major, July 2004 (Military Review, Will We Need a Space Force?, <http://www.au.af.mil/au/awc/awcgate/milreview/moorhead.pdf>)

Still, the opposing viewpoints on a separate Space Force warrant serious consideration. Some argue that the U.S. military mission in space has not evolved sufficiently to warrant a separate military service for space operations. Congress established the Air Force as an independent force only after air power had achieved combat-tested technology, doctrine, and leadership. The Commission to Assess U.S. National Security Space Management and Organization concluded, “There is not yet a critical mass of qualified personnel, budget, requirements, or missions sufficient to establish a new department.” Military space operations planning is still in its infancy. While making important contributions to land, sea, and air forces, military space capabilities are not an independent warfighting capability like air power was when the Air Force became an independent service. Currently no space weapons exist, and no nation appears to have the capability to field space-based weapons in the near future. Given the rudimentary weaponry used on aircraft in World War I, space power technology is roughly equivalent to pre-World War I air power technology. No air power theorists, not even Italian air power theorist Giulio Douhet or air power crusader Brigadier General Billy Mitchell, recommended an independent air force before World War I. Space power technology has not reached a level of warfighting potential that justifies an independent military service.

Neg—space corps

Separating air and space is impossible

Shawn Rife, AF Major, April 1999 (Air Power Jor., On Space-Power Separatism, <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj99/spr99/rife.html>)

In the past, Air Force doctrine has challenged the notion that physical differences between air and space necessarily require a separate space service: Some people have seized on the differences in air and space technologies to argue that space constitutes a separate environment from the air and that space requires development of a separate force to exploit it just as the land, sea, and air environments require separate forces. This argument is equivalent to saying that submarines and surface ships should be in separate force structures. Although there are many differences between submarine and surface craft, the important quality they share is that they both operate at sea. Infantry and armor use quite different technologies as well, but they do not require separate services because their significant unifying characteristic is that they both operate on land. Similarly, the important quality that air and spacecraft share is that they operate above the earth's surface. Moreover, no sharp boundary exists between air and space, while it is quite obvious when one moves from land to sea or from aerospace to land or sea. Freedom of movement and speed underscores [sic] the military usefulness of exploiting air and space. While no current platform has the ability to completely exploit the full spectrum of the aerospace environment, the planned development of an aerospace plane to operate both in the atmosphere and in space serves to illustrate the continuity of aerospace. Its continuity is further evidenced by the fact that conceptually many of the same military activities can be performed in air and space, even though different platforms (some of which are yet to be developed) and somewhat different methods must be used to perform them. Thus, from a military, as opposed to an engineering, perspective, the aerospace environment must be considered as an indivisible whole.

Incremental change best—creation of a new agency only magnifies bureaucratic problems

Benjamin S. Lambeth, 2003, (RAND Sen. Staff, Mastering the Ultimate High Ground, Pg. 155)

In considering all orderly transfer of C4/ISR functions from air to space, one must bear ill mind the inherent and natural conservatism of military organizations. Such organizations are characteristically inclined to implement change only slowly and incrementally, since to do otherwise would risk compromising their ability to execute decisively at a moment's notice. Accordingly, all instructive lessons from the study of organizational history is that one should not try to change too much at once. This time-honored adage has a direct bearing on how the Air Force should approach the migration of its surveillance and battle- management capabilities from air to space. Legacy air-breathing systems such as Joint STARS and AWACS, which have been acquired through multiple billions of dollars of investment, cannot be summarily written off if they have substantial service life remaining—however well-intended the various arguments for mission migration to space may be. It may make better sense to think of space not its a venue within which to replace existing surveillance functions wholesale, but rather as a medium offering the potential for expanding the Air Force's existing surveillance envelope by more fully exploiting both the air and space environments.

The Rock

AT: Supervolcanoes – can't predict

Impossible to predict when a supervolcano will erupt.

Robert Trombley, PhD, 2003 (Southwest Volcano Research Centre, Is The Forecasting Of The Eruption Of The Yellowstone Supervolcano Possible, page 7)

Conventional eruption forecasting of “normal” volcanoes is difficult enough. The forecasting of supervolcanoes presents even more difficult problems. Eruption forecasting has made some progress with the advent of the software package, ***Eruption Pro 10.3***, [Trombley, 2002] and its ability to correctly forecast conventional volcanoes eruptions. The current goal of forecasting volcanic eruptions is to provide the best forecasts possible based on the geologic history of the volcano under study as well as on the day-to-day vitals signs of the volcano in terms of earthquakes, surface deformation, temperature, gas emissions, and other measurements. While all of these characteristic vital signs would also apply to supervolcanoes, there are other problems that arise.

AT: Asteroids – don't outweigh (probability low)

The probability of a civilization ending strike is less than one in one hundred thousand in the next century, and the effects of the strike can be mitigated with prior preparation.

Chapman, Clark R.Ph D from the Earth and Planetary Sciences Dept. of MIT. 4 March 2004 (The hazard of near-Earth asteroid impacts on earth, http://www.b612foundation.org/papers/Chapman_hazard_EPSL.pdf)

A million-megaton impact, even though f 100 times less energetic than the K-T impact, would probably destroy civilization as we know it. The dominant immediate global effect would be sudden cooling, lasting many months, due to massive injection of dust into the stratosphere following impact. Agriculture would be largely lost, worldwide, for an entire growing season. Combined with other effects (a firestorm the size of India, destruction of the ozone layer, etc.), it is plausible that billions might die from collapse of social and economic institutions and infrastructure. No nation could avoid direct, as well as indirect, consequences of unprecedented magnitude. Of course, because civilization has never witnessed such an apocalypse, predictions of consequences are fraught with uncertainty.

As discussed earlier, few bodies of these sizes remain undiscovered, so the chances of such an event are probably < 1-in-100,000 during the next century. The warning time would almost certainly be long, in the case of a NEA, but might be only months in the case of a comet. With years or decades of advance warning, a technological mission might be mounted to deflect the NEA so that it would miss the Earth; however, moving such a massive object would be very challenging. In any case, given sufficient warning, many immediate fatalities could be avoided by evacuating ground zero and longer-term casualties could be minimized by storing food supplies to survive the climate catastrophe. Susceptible infrastructure (transportation, communications, medical services) could be strengthened in the years before impact. However, no preparation for mitigation is warranted for such a rare possibility until a specific impact prediction is made and certified. The only advance preparations that might make sense would be at the margins of disaster planning developed for other purposes: considering such an apocalypse might foster “out-of-the-box” thinking about how to define the outer envelope of disaster contingencies, and thus prove serendipitously useful as humankind faces an uncertain future.

AT: Asteroids – don't outweigh (probability low)

Even though asteroids are an important concern, the probability of a civilization ending event happening soon is very low and doesn't outweigh more immediate impacts.

Chapman, Clark R.Ph D from the Earth and Planetary Sciences Dept. of MIT. 4 March 2004 (The hazard of near-Earth asteroid impacts on earth, http://www.b612foundation.org/papers/Chapman_hazard_EPSL.pdf)

Even at the low modern impact rate, impacts happen often enough to affect profoundly the evolution of life (e.g., the Chicxulub impact 65 Myr ago, dominantly responsible for the K-T mass extinction). Because of the comparatively short timespan of human lives and even of civilization, the importance of impacts as a modern hazard is debatable. Below, I argue that the impact hazard is significant in the context of other man-made and natural hazards that society takes seriously, although impacts are obviously far less important than the chief issues affecting our lives. Of course, NEAs have other vital virtues. They and their accompanying meteoroids bring samples from far-flung locations in the solar system to terrestrial laboratories for analysis and they leave traces in ancient impact craters and basins on the Earth and the Moon, permitting broad insights into primordial and recent processes operating in the inner solar system. In the future, NEAs may provide way-stations for astronauts en route to Mars or elsewhere; they also may provide raw materials for utilization in space.

Neg—AT: asteroids

Asteroids are ‘hypothetical fears’ that won’t happen

Seamone, Evan R. J.D. University of Iowa College of Law; M.P.P. in Public Policy, B.A. Sociology. Summer 2003. (The Duty to "Expect the Unexpected": Mitigating Extreme Natural Threats to the Global Commons Such as Asteroid and Comet Impacts with the Earth, lexis

Natural impact is a "hypothetical fear," similar to "biological and chemical warfare, mad-cow disease, suitcase bombs, terrorists, radiation, and foreign viruses." Although each of these fears raises an infinite number of concerns, they generally fall within two categories of impossible questions that could easily lead one to accept ignorance of the harm as a viable policy option. First, it is unclear whether a significant threat will occur in the near future, thereby prompting concerns such as: "How can we mitigate a threat we can't simulate"; and "with hunger, poverty, terrorism, and health concerns facing the global community today, why prioritize this threat." Second, assuming there is a threat, doubts arise regarding the government's ability to respond adequately: "Won't a mitigation plan create public panic that will undercut the plan's effectiveness?" and "after natural impact, won't morale problems, e.g., distrust of the government for failing to keep people safe, make reconstruction impossible." Similar concerns have led some to promote the policy position that governments intentionally withhold information of a known asteroid or comet threat if there is no way to intercept the object.

Neg—AT: asteroids (if read space mil inevitable)

Space militarization solves for asteroids

Scott **Barrett**, 2006, The University of Chicago, Chicago Journal of International Law, lexis

Several options are currently being investigated, including the launch of a "space tug" that would attach itself to an approaching asteroid and push the asteroid away from a collision course with the Earth. 30 (If the asteroid were distant enough, a slight nudge would be sufficient.) This possibility is not confined to the realm of science fiction. In 2001, NASA's NEAR Shoemaker spacecraft landed gently on the surface of Eros, an asteroid 196 million miles from the Earth, even though the spacecraft was not designed for this purpose.³¹ More recently, on July 4, 2005, NASA's Deep Impact spacecraft launched an "impactor" spacecraft that successfully collided with Comet Tempel 1. This impactor was not forceful enough to appreciably change the comet's orbit, but a larger device, designed specifically for this purpose, could.³²

Neg—AT: space mil solves asteroids

The threat of an asteroid strike is very dangerous because they are not preceded by indicators that alert us and they might not be able to prevent.

Seamone, Evan R. J.D. University of Iowa College of Law; M.P.P. in Public Policy, B.A. Sociology. Summer 2003. (The Duty to "Expect the Unexpected": Mitigating Extreme Natural Threats to the Global Commons Such as Asteroid and Comet Impacts with the Earth, lexis)

This Article addresses "extreme" natural threats" that endanger multiple countries simultaneously, in particular the threat of "natural impact" - i.e., the threat of asteroids or comets striking the Earth. These threats are particularly dangerous because they are not preceded by the many indicators that enable law enforcement agencies to prevent acts of terrorism, such as "chatter," the transfer of large sums of money, and odd travel patterns. Often, natural threats cannot be prevented, which means that equal, if not greater, emphasis must be placed on post-disaster response. Consequently, the prototype for identifying the duties of governments to plan for and act in the face of massive harm cannot be the traditional, isolated natural disaster, such as the tornado, earthquake, or typhoon, which does not necessarily involve an international response.

We can't prevent an asteroid collision

Evan R. Seamone, B.A. Sociology, University of CA, LA. March 2002 (87 *Iowa L. Rev.* 1091, lexis)

Although government agencies have developed and funded plans to mitigate threats posed by objects from space, these plans, by themselves, fail to demonstrate effective preparation. Astronomers are theoretically "mitigating" interplanetary collisions by tracking objects likely to come within the Earth's orbit. Since at least 1998, the National Aeronautics and Space Administration (NASA) has charted the course of many hundreds of Near-Earth-Orbiting Objects (NEOs). ⁶⁷ Other nations with available resources have also committed significant (though less) funding toward cataloguing threatening space objects using high-powered telescopes. ⁶⁸ These efforts seem to convey a sense of commitment to global preparedness. Closer scrutiny, however, reveals a complete lack of disaster response measures to deal with post-sighting conditions. ⁶⁹ Plans are confused by unresolved international law: who gets evacuated and in what order? Who distributes resources? Who controls the flow of refugees across borders? The questions are infinite because the threat is inestimable. ⁷⁰ In many cases, scientists do not have the training or knowledge to provide useful guidance. ⁷¹ [*1106] Current efforts at cataloguing potential risks of Earth impacts also fail to address technological inadequacies that make post-sighting response measures a necessity. Notwithstanding tracking efforts, some asteroids and comets will elude technology because some space objects cannot be spotted. ⁷² Even when sightings occur, response measures are limited because international law is unclear about the types of actions nations can take to defend themselves. ⁷³ Moreover, limitations on the amount of time nations ⁷⁴ [*1107] require to effectively combat a probable strike make a nation's ability to spot an approaching space body far less important than a nation's ability to react to one. ⁷⁵ Additionally, astronomers' impact predictions are fraught with error. Scientists twice startled the public in the last few years by predicting impacts within the next ten to forty years, ⁷⁶ only to rescind both estimates after mere days had passed. ⁷⁷ Without answering serious questions that perhaps only the law can resolve, governments will fail in their efforts to mitigate Earth collisions. The science of global preparation is plagued by imprecision, raising troubling questions about whether nations can effectively prepare for a threat they cannot accurately predict. Should they create new organizations, conduct extensive educational programs, or begin preparing evacuations on an international scale? Or, should they first wait for conclusive evidence that the Earth is in danger? Governments have thus far adopted the latter approach. ⁷⁸ To date, efforts to "mitigate" asteroid or comet threats have amounted to nothing more than cataloguing objects in space. Because astronomers admit that certain space threats that can elude their current efforts could devastate the Earth within minutes, nations need to coordinate their efforts beyond mere stargazing. ⁷⁹

Neg—AT: space mil solves asteroids

Detection doesn't solve—comets emerge too quickly

Evan R. Seamone, J.D., University of Iowa College of Law; M.P.P. and B.A., University of California, 2004 (Georgetown International Environmental Law Review, “The Precautionary Principle as the Law of Planetary Defense: Achieving the Mandate to Defend the Earth Against Asteroid and Comet Impacts While There is Still Time”, lexis)

Without question, asteroids and comets are distinct from falling space stations or space debris because they are far less predictable and pose much greater harm. First, the lack of a coordinated series of telescopes across the globe makes it impossible for astronomers to monitor all potential asteroid and comet threats. 7 As a result, some policymakers have wagered that novice sky watchers will be just as likely as professional astronomers to spot the next significant asteroid or comet threat. 8 In addition to inadequate monitoring capabilities, some threats, such as long period comets, may emerge so quickly that they will evade even the best telescopes altogether or until it is too late to respond.

International cooperation key

Without international cooperation, space exploration won't happen.

Tariq Malik, journalist, May 4, 2004 (Space.com, Space Experts Say International Cooperation is Key for NASA's Space Vision) http://www.space.com/news/commission_ny_040504.html

NEW YORK CITY -- NASA should not limit itself to merely seeking support from the American public to push forward its vision of the human exploration of space, according to the foreign space agency directors, scientists and space enthusiasts addressing a presidential commission Monday.

While support from the American people, and the politicians who represent them, is a critical component of the space vision, so to is international cooperation, panelists said during the final meeting of the Commission on the Implementation of United States Space Exploration Policy. The commission, held at the Asia Society here, was appointed by President George W. Bush to recommend the steps needed to full his vision of sending humans to the moon and Mars.

"Space is a global industry," said Daniel Sacotte, a director with the European Space Agency's (ESA) human spaceflight, microgravity and exploration programs. "[The vision] is most difficult, but it is most important that we cooperate."

AT: Space solves environment

Going to space does not solve—there must be a change in the global ethic to solve environmental harms

David Tan, Harvard Law School Tutor in Law Trinity College, University of Melbourne, 2000(The Yale Journal of International Law, Towards a New Regime for the Protection of Outer Space, lexis)

Current literature has concentrated on the notion of sustainable development as involving the integration of economic and environmental considerations at all levels of decision-making. But the outer-space environment has been largely ignored, as if it were simply economic development on Earth that must be environmentally sound. There is no reason, however, why the precautionary principles that emerge from the concept of sustainable development in the Stockholm Declaration, the Rio Declaration, and the World Charter for Nature should not apply equally to the outer-space environment. Few states, if any, will take issue with the proposition that the exploration and use of outer space should be sustainable. It is in the common interest of all states, whether spacefaring or otherwise, to subscribe to a regime that allows for the development of space activities in a manner that leaves the space environment in a substantially unimpaired condition for future generations. One might even ultimately find that the uniqueness and vulnerability of the outer-space environment demand that the international community as a whole recognize sustainable development as a "global ethic" that transcends terrestrial boundaries, as a peremptory norm that prohibits "policies and practices that support current living standards by depleting the productive base, including natural resources, and that leaves future generations with poorer prospects and greater risks than our own."

Space Mil

No threat to U.S. dominance

The U.S. is the only country with the capability to weaponize space.

Thomas D. Bell, Lt Col, USAF. 1999, Weaponization Of Space:Understanding Strategic and Technological Inevitabilities. Center for Strategy and Technology

The weaponization of space provides the asymmetric technology the US needs to win the next war. The United States is the only nation with the economic and scientific potential to make this technology a reality in the next thirty years. The technological development of weapons that apply force in, from, and through space must have the goal of fielding weapons as the technology matures. Just as the doctrine of daylight precision bombing guided the development of the long-range bombers of World War II, today's Air Force must develop doctrine for the employment of space weapons. This space version of strategic bombardment doctrine will serve both as a guide to technological development and as a plan for the long-term structure of the Air Force. If no war comes, US space-based capabilities will have proven an effective deterrent force; if war does come, as the inevitable result of competition on earth or in space, technological asymmetry will once again be a large factor in giving the United States the capability for winning a decisive victory. To be effective, however, institutional and doctrinal change must accompany this technological asymmetry.

Threats of a space pearl harbor are exaggerated, but if the U.S. deploys space weapons we will lose our monopoly on space mil.

Kathleen M. Sweet, J. D., Lt. Col. (Ret.) USAF Associate Professor, Embry-Riddle Aeronautical University August 2003 ("Space Based Offensive Weapons,"
http://satjournal.tcom.ohiou.edu/Issue6/current_weaponry2.html)

Considering the current global situation, it is fair game to debate whether US space based assets are really at risk. Some have foretold of a "Space Pearl Harbor" but this seems a bit disingenuous. The Soviet Union had a working anti-satellite weapons system in the early 1970's and given adequate funding, modern Russia would be capable of building another more up-to date system. Our European allies could likely build and deploy an ASAT system but have also resisted spending the money to build one. Other countries with space potential include Brazil, China, India, and Iran. [13] To date, the perceived threat has not matched the enthusiasm to commit to the effort. The US has no active ASAT program but since 9/11 is more actively pursuing the matter. The system would likely be ground-based initially and deployed sometime in the early decades of the 21st century. This system could be a precursor to an offensive weapon that would possess the capability to attack and destroy ground targets. This continuing activity begs the additional question of whether space should be weaponized and whether Congress is poised to fund the programs. Wary of the changes in the former Soviet states and the threat of global terrorism, it seems that they are willing. Congress realizes that the US military cannot be caught unprepared again in defense of the Homeland. Consequently, funding for research and development of technologies easily adapted to space warfare continues, despite reservations about weapons in space. The US does not have a monopoly on the use of space but does dominate it. The number of nations able to realistically challenge the US in space is limited. The Russian space program is still operates at an advanced level even though somewhat stagnant due to economic difficulties. China certainly has the potential to be a major space power in the 21st century. Other countries have launch facilities and technological prowess to pursue interests in space. How these space capable countries would react or be capable of significantly reacting to further US space superiority remains to be seen. Regardless, US strategists need to consider the possibilities. Should such a threat materialize, the US monopoly in space warfare would be eliminated, much as the atomic bomb monopoly was lost when the Soviet Union developed an atomic bomb. At least some analysts believe that strategy would cover aspects of space control, missile defense and force application from space.

Space Mil Good Now

The United States is already secure in its space military operations.

General Ralph E. **Eberhart**, USAF Commander In Chief North American Aerospace Defense Command and United States Space Command, July 11, **2001** (Statement of General Ralph E. Eberhart, Page 14)

I assure you, NORAD and USSPACECOM are prepared to provide aerospace defense to the people of North America and space support to U.S. and allied armed forces. We continue to find new ways to improve our warfighting capabilities by integrating space capabilities into all aspects of our military missions; we are working to do the same for computer network operations. As we develop our next generation systems, we must invest the necessary resources and intellectual capital to protect our vital interests and sustain our lead in space. We appreciate Congress' continued support to maintain our high state of readiness. With your help, we will ensure space forces play a key role in our Nation's future defense.

Space Commission Solving Now

The Space Commission is being implemented and will vastly improve our space military capabilities.

Stephen P. Randolph, 2002, National Defense university,

http://www.ndu.edu/inss/books/Books_2002/Transforming%20Americas%20Mil%20-%20CTNSP%20-%20Aug%202002/14_ch12.htm,

The Commission, and the subsequent implementing actions taken by Donald Rumsfeld as Secretary of Defense, aimed at rationalizing the management of the national security space program and enabling stronger advocacy of space within the Air Force and DOD as a whole. The major organizational adjustments taken since then have reached from the departmental level into the unified command chain and down to the component level, redefining the relationship between the Air Force Space Command and Air Force Material Command.

Given the time required for organizational adjustments to take hold and for programs to reflect management reforms, it will be some years before these changes yield improvements to operational capabilities. However, the actions taken to this point will, in time, measurably strengthen the integration of space programs across DOD and within the Air Force. At this point, four adjustments appear to be the most significant.

US Inevitably loses space heg

US will inevitably lose military supremacy in space

Major **Willson** (B.A., C.W. Post College; J.D., Touro School of Law; LL.M., The Judge Advocate General School) is the International & Operational Law Attorney, Army Space Command, Colorado Springs, Co. 2001 (An Army View of Neutrality in Space: Legal Options for Space Negation, lexis)

Operation Desert Storm was the first war in which satellites played a major role for the U.S. ground commander. ²⁷ Prior to the war, President Saddam Hussein's ground forces were matched in size with the Coalition forces, and Iraq possessed relatively modern weapons purchased with oil money. A critical difference between the two was that the Coalition forces had space systems allowing them to see, hear, and speak to each other--a capability which Iraqi forces lost within the first hours of the war. ²⁸ Martin Faga, Assistant Secretary of the Air Force for Space at the time of the war stated, "the world watched and learned. Many . . . will want and will eventually obtain their own space assets . . . adversaries will seek to dilute the effectiveness of ours." ²⁹ U.S. Space Command takes the increasing importance of space commercialization to its logical conclusion: "As commercial space systems provide global information and nations tap into this source for military purposes, protecting (as well as negating) these non-military space systems will become more difficult."

US power in space will inevitably decline

O'Hanlon, E. Michael Ph.D. Princeton University, 2004 (Neither Star Wars Nor Sanctuary 61-2)

If space-related technologies could be frozen in place in their current state, the United States would be in a fortunate position. It dominates the use of outer space for military purposes today. Russia's capabilities have declined, to the point where its weakness may be of greater concern than its strength, given the lack of dependable early-warning satellites for ballistic missile launch. China's assets remain rudimentary, as do those of America's other potential rivals (or current enemies). The United States is able to use satellites for a wide range of missions, including not only traditional reconnaissance and early-warning purposes but also real-time targeting and data distribution in warfare. Although it hopes to develop space-based missile defense assets someday, the present need for such capabilities is generally rather limited, and ground-based systems increasingly provide some protection, in any event. More exotic capabilities, such as space-to-Earth kinetic rods, airplanes that would bounce along the top of the atmosphere, or intercontinental artillery, are not of pressing need given existing U.S. capabilities for projecting power anywhere in the world. On the whole, the current configuration of global space technologies and assets is highly desirable from an American perspective and unlikely to improve much further, if at all. Deterioration in the U.S. position seems more likely.

AT: Space Mil Inevitable

Neg—AT: space mil inevitable

Space militarization is not inevitable

Charles Park, University of Houston Law Center; M.A., New York University; B.A., Columbia University, Spring 2006 (Houston Journal of International Law, INCREMENTAL STEPS FOR ACHIEVING SPACE SECURITY: THE NEED FOR A NEW WAY OF THINKING TO ENHANCE THE LEGAL REGIME FOR SPACE, lexis)

The fallacy of the inevitability argument is that, in the short run at least, the United States is the only country that possesses the resources and capabilities necessary to deploy space weapons.⁹² This has never been the case in American history. As one historian notes, from the "development of ironclad warships in the 1860s, Dreadnought battleships after 1900, or atomic weapons in the 1940s," different nations were simultaneously [*889] developing the same technology.⁹³ This left a choice to the different governments to either take the lead in the arms race or get passed by.⁹⁴ In the space weapons debate, in contrast, "the United States can unilaterally [for the time being] choose whether space will be weaponized."⁹⁵ Consequently, the United States controls the inevitability of space weaponization. This conviction is dangerously close to evolving into a self-fulfilling prophecy that simply cannot be refuted.

Your inevitability arguments are false—we can't predict the future

Charles Park, University of Houston Law Center; M.A., New York University; B.A., Columbia University, Spring 2006 (Houston Journal of International Law, INCREMENTAL STEPS FOR ACHIEVING SPACE SECURITY: THE NEED FOR A NEW WAY OF THINKING TO ENHANCE THE LEGAL REGIME FOR SPACE, lexis)

The question of whether weaponization will occur is still yet to be determined, but it will undoubtedly be affected by the decisions of U.S. military space policymakers in the coming years.⁹⁹ Because the choices ahead are so important, it would be irresponsible of the United States to rely solely on an argument lacking in critical analysis and "based upon little more than superficial historical analogies and glib strategic aphorisms."¹⁰⁰ The bottom line is that the use of the word "inevitable," in the context of the weaponization of space, is dangerous simply [*890] because there are too many variables to be able to discern the future with any degree of certainty at this point.

AT: China and Russia

China and Russia don't want space militarization and will not compete

Sean R. Mikula, Lawyer and former Military Intelligence Officer, 2001, (Blue Helmets in the Next Frontier: The Future is Now, The Georgia Journal of International and Comparative Law, lexis)

On the other hand are those nations, such as Russia and China, which claim to desire complete demilitarization. The Chinese Ambassador to the United Nations on Disarmament recently voiced his country's view that "[t]he prevention of an arms race and the prohibition of weapon systems in outer space will . . . exempt outer space from wars . . . [and will] be crucial for maintaining peace, security, and stability on the Earth." ⁸³ Moreover, the Chinese ambassador, in a statement seemingly targeted at the United States, stated that "attempts to seek so-called 'absolute superiority' for oneself at the expense of the security of others will definitely go nowhere and benefit nobody." ⁸⁴ In addition, Russian President Vladimir Putin, who ostensibly [*550] holds to the same position, initiated and hosted in April 2001 an international conference aimed at preventing an arms race in space. ⁸⁵ Participants from the United States and Great Britain were noticeably absent. ⁸⁶

China cannot catch up to the US

O'Hanlon, E. Michael Ph.D. Princeton University, 2004 (Neither Star Wars Nor Sanctuary 97)

It is doubtful that trends in space capabilities or any other aspect of defense modernization will radically alter the basic military balance in the next decade or so. The size and caliber of the U.S. military is sufficient that, even if China were able to close the technological gap and have the potential to cause substantial losses to the United States in a war over Taiwan, the American armed forces would still surely prevail. The United States Could lose a carrier or two and still maintain overwhelming military superiority in the region.

Russia can't go to space—won't compete with the US

Sean R. Mikula, Lawyer and former Military Intelligence Officer, 2001, (Blue Helmets in the Next Frontier: The Future is Now, The Georgia Journal of International and Comparative Law, lexis)

The irony of Russia's position is worth mentioning. It was the Soviet Union and its allies which opposed U.S. proposals in 1957 to create an inspection system that would ensure that the sending of objects into outer space would be exclusively for scientific and peaceful purposes. See Jasani, supra note 10, at 7. This was at a time when the Soviet Union had already launched two artificial satellites and the United States had launched none. See id. Now, their roles having reversed, Russia, successor to the Soviet Union, has called for complete demilitarization at a time when it fully realizes the United States' lead in space.

Neg—space mil = conflict

Space militarization ensures global conflict

Sean R. Mikula, Lawyer and former Military Intelligence Officer, 2001, (Blue Helmets in the Next Frontier: The Future is Now, The Georgia Journal of International and Comparative Law, lexis)

ABOVE ALL, we must guard against the misuse of outer space. We recognized early on that a legal regime was needed to prevent it [from] becoming another area of military confrontation. The international community has acted jointly, through the United Nations, to ensure that outer space would be developed peacefully. But there is much more to be done. We must not allow this century, so plagued with war and suffering, to pass on its legacy to the next, when the technology at our disposal will be even more awesome. We cannot view the expanse of space as another battleground for our earthly conflicts. - Kofi Annan,¹ United Nations Secretary-General

US space weaponization spurs an arms race and war

Charles Park, University of Houston Law Center; M.A., New York University; B.A., Columbia University, Spring 2006 (Houston Journal of International Law, INCREMENTAL STEPS FOR ACHIEVING SPACE SECURITY: THE NEED FOR A NEW WAY OF THINKING TO ENHANCE THE LEGAL REGIME FOR SPACE, lexis)

Quite possibly the most important cost of space weaponization, in terms of its geostrategic impact and the threat most important to communicate, is that space-based weapons do not simply enhance existing threats, they also introduce a new and greater danger because of the threat they pose to strategic stability.¹⁷⁹ The vulnerability of space-based weapons will likely create incentives for other states and nonstate actors to develop space weapons, most obviously because they lack the conventional military and force projection abilities in comparison with the United States.¹⁸⁰ Once again, the unfortunate end result could easily be a destabilizing arms race making the world less safe and more prone to war.

US space militarization leads to a destabilizing arms race—the status quo ensures security

Nina Tattenwald, Prof. of Int. Studies at Brown University, Summer 2004 (The Yale Journal of International Law, Law Versus Power on the High Frontier: The Case for a Rule-Based Regime for Outer Space, lexis)

Today the freedom of the seas principle is increasingly dysfunctional, but hegemony need not be. The United States should use its power and position to support the creation of an operational regime for space based on the rule of law, rather than pursue a short-sighted policy of competition for national dominance. Security in space will be more effectively achieved through a rule-based regime than through the deployment of destabilizing weapons systems. The rest of the world is not rushing to weaponize space, and instead appears ready to follow the U.S. lead in devising new rules for its effective management. In the long run, the best way to protect U.S. commercial, scientific, and security interests in space will be through the stability of the rule of law, rather than through unilateral assertions of military power. The United States should take the lead in promoting the transition to a regime of mutual restraint and benefit in space.

Neg—space mil = conflict

Weaponizing space leads destabilizes US hegemony and ensures an arms race and conflict

Nina Tattenwald, Prof. of Int. Studies at Brown University, Summer 2004 (The Yale Journal of International Law, Law Versus Power on the High Frontier: The Case for a Rule-Based Regime for Outer Space, lexis)

The future of peace and security in outer space is at a critical juncture. The legal regime that guides commercial, military, and scientific activities in space is fragmented and increasingly inadequate to meet the challenges posed by the growing number of actors seeking to exploit space. The most serious challenge to the space regime is posed by the stated intent of the George W. Bush administration to pursue national dominance in space, which may eventually include stationing weapons there. Although space is already militarized to some degree - that is, used for military support purposes - no nation has yet placed weapons in space. Such a move would cross an important and longstanding threshold, likely provoking a battle for national superiority in space dominated by the United States. It would seriously undermine the current legal order in space that is widely supported by the rest of the world. The deployment of ground-based antisatellite (ASAT) weapons would also constitute a serious departure from the current regime. Without a concerted effort to develop a more comprehensive legal regime for space that will limit unconstrained weaponization, the international community will likely face a new military competition in space, with destabilizing consequences for national and global security. Such a competition will place at risk existing military, commercial, and scientific activities.

US space militarization encourages preemptive strikes

Nina Tattenwald, Prof. of Int. Studies at Brown University, Summer 2004 (The Yale Journal of International Law, Law Versus Power on the High Frontier: The Case for a Rule-Based Regime for Outer Space, lexis)

A contest over national superiority in space could extinguish the explicit equal right to use space that all nations enjoy, creating instead a de facto regime of control over access and use by the first nation to successfully deploy weapons based in space or weapons on the ground that target satellites. Given the immense value of outer space and its resources, other nations might develop their own antisatellite weapons designed to break this monopoly. Countries that lack the capabilities to build such weapons might purchase them. Space-based weapons would also generate instability due to the incentives for preemptive attack that powerful but vulnerable weapons systems seem likely to create.

US space militarization encourages nuclear war

Nina Tattenwald, Prof. of Int. Studies at Brown University, Summer 2004 (The Yale Journal of International Law, Law Versus Power on the High Frontier: The Case for a Rule-Based Regime for Outer Space)

The choice between a competition for national superiority and a strengthened legal regime that preserves and balances the interests of all in space will have profound consequences. If the United States aggressively moved weaponry into space, it would likely provoke other nations to pursue countermeasures, with destabilizing consequences for global and national security. In addition, by encouraging nations who do not currently have an interest in placing weapons in space to compete directly and immediately with U.S. space-based assets, the United States would almost certainly guarantee the loss of the advantages it seeks to protect. Although an arms race in ASAT weapons is one of the dangers, the threat currently of greatest concern to states such as China and Russia is the U.S. use of space systems to augment its nuclear and conventional strategic strike capabilities. From the perspective of these nations, the U.S. decision to expand strategic capabilities into space represents the collapse of the Cold War bargain of strategic stability based on mutual vulnerability. A military competition in space could thus invigorate a high-tech arms race and renew emphasis on doctrines of nuclear warfare. 25

Neg—space mil = conflict

US militarization of space leads to counterbalancing, an arms race and pushes Russia and China together

Nina Tattenwald, Prof. of Int. Studies at Brown University, Summer 2004 (The Yale Journal of International Law, Law Versus Power on the High Frontier: The Case for a Rule-Based Regime for Outer Space, lexis)

For several reasons, the first two scenarios are unlikely to lead to stable outcomes. As discussed earlier, U.S. efforts at space dominance will likely inspire other countries to pursue countermeasures to offset U.S. capabilities, thus risking a never-ending search for security in space that will leave all actors worse off. Some advocates of space weaponization argue that others will be deterred from responding to U.S. deployment of space weapons for fear of a U.S. counterattack, or out of a conviction that there is no point competing because the United States will always be ahead.⁸¹ But proponents of this view have so far offered little explanation of how or why this would be the case. Instead, given the vast U.S. dependence on satellites, other countries merely have to pursue an "asymmetric warfare" strategy of building antisatellite weapons, and there are multiple and relatively easy ways to do this.⁸² Because of this, dominance will be very hard to achieve, and will also have adverse consequences for the United States - including alienating allies. [*380] pushing Russia and China closer together, and placing at risk other U.S. interests in space.⁸³

Space weaponization causes preemptive war

Nina Tattenwald, Prof. of Int. Studies at Brown University, Summer 2004 (The Yale Journal of International Law, Law Versus Power on the High Frontier: The Case for a Rule-Based Regime for Outer Space)

This vulnerability would be exacerbated in space, where factors of speed, the susceptibility of space activities to disruptions with consequent effects on earth, and the perceived close link between military activity on Earth and military activity in space would enhance the risk posed to others. Here it is useful to distinguish between the physical effects of space weapons and their geostrategic impact. From the perspective of their physical effects, in most cases, space-based weapons increase present threats rather than replace them with much greater threats. Space-launched missiles move hardly any faster and reach no farther than submarine-launched missiles. Space-borne weapons are much more vulnerable than land-based weapons. And inland nations are not really safer from attack from the oceans than attack from space. However, space-based directed energy weapons, such as lasers, would move faster and could strike targets on Earth and in the atmosphere with enormous speed.²⁰⁵ Lasers would also pose a significant threat to the survivability of space systems. They might make possible a prompt "sky-sweeping" attack against military satellites without significant tactical warning. In such a case, redundancy of satellites would be of little value. This would pose a threat of great magnitude to a state dependent on satellites for essential military functions. More generally, strategic defense systems based in space would pose significant threats to other space-based systems, and to targets in the atmosphere and on earth as well. In terms of their geostrategic impact, space-based weapons do not simply enhance existing threats but introduce a new and greater danger because of the threat they pose to strategic stability. The vulnerability of space-based weapons will likely create incentives for preemptive attack to protect the weapons during a crisis, greatly increasing the likelihood of war. Further, although supporters of space weapons claim that, consistent with the United States' defensive orientation to the world, such weapons would be for defensive purposes, the reality is that, given their characteristics, many of them are inherently offensive weapons. It is widely recognized that space- [*400] based ballistic missile defense systems could carry out surprise attacks against terrestrial targets or satellites.

Space Mil = Extinction

Space militarization will destroy humanity.

Mitchell 2001 (Gordon et al, Associate Professor of Communication and Director of Debate @ U Pittsburgh, ISIS Briefing on Ballistic Missile Defense, No. 6, http://www.isisuk.demon.co.uk/0811/isis/uk/bmd/no6_paper.html)

A buildup of space weapons might begin with noble intentions of 'peace through strength' deterrence, but this rationale glosses over the tendency that '...the presence of space weapons...will result in the increased likelihood of their use'.³³ This drift toward usage is strengthened by a strategic fact elucidated by Frank Barnaby: when it comes to arming the heavens, 'anti-ballistic missiles and anti-satellite warfare technologies go hand-in-hand'.³⁴

The interlocking nature of offense and defense in military space technology stems from the inherent 'dual capability' of spaceborne weapon components. As Marc Vidricaire, Delegation of Canada to the UN Conference on Disarmament, explains: 'If you want to intercept something in space, you could use the same capability to target something on land'.³⁵ To the extent that ballistic missile interceptors based in space can knock out enemy missiles in mid-flight, such interceptors can also be used as orbiting 'Death Stars', capable of sending munitions hurtling through the Earth's atmosphere.

The dizzying speed of space warfare would introduce intense 'use or lose' pressure into strategic calculations, with the spectre of split-second attacks creating incentives to rig orbiting Death Stars with automated hair trigger devices. In theory, this automation would enhance survivability of vulnerable space weapon platforms. However, by taking the decision to commit violence out of human hands and endowing computers with authority to make war, military planners could sow insidious seeds of accidental conflict.

Yale sociologist Charles Perrow has analyzed 'complexly interactive, tightly coupled' industrial systems such as space weapons, which have many sophisticated components that all depend on each other's flawless performance. According to Perrow, this interlocking complexity makes it impossible to foresee all the different ways such systems could fail. As Perrow explains, '[t]he odd term "normal accident" is meant to signal that, given the system characteristics, multiple and unexpected interactions of failures are inevitable'.³⁶ Deployment of space weapons with pre-delegated authority to fire death rays or unleash killer projectiles would likely make war itself inevitable, given the susceptibility of such systems to 'normal accidents'.

It is chilling to contemplate the possible effects of a space war. According to retired Lt. Col. Robert M. Bowman, 'even a tiny projectile reentering from space strikes the earth with such high velocity that it can do enormous damage — even more than would be done by a nuclear weapon of the same size!'.³⁷ In the same Star Wars technology touted as a quintessential tool of peace, defence analyst David Langford sees one of the most destabilizing offensive weapons ever conceived: 'One imagines dead cities of microwave-grilled people'.³⁸ Given this unique potential for destruction, it is not hard to imagine that any nation subjected to space weapon attack would retaliate with maximum force, including use of nuclear, biological, and/or chemical weapons. An accidental war sparked by a computer glitch in space could plunge the world into the most destructive military conflict ever seen.

Space Mil = Nuclear War

Space militarization will cause global WMD wars.

Schell 2001 (Jonathan, Peace Fellow at the Nation Institute,
The Nation, v272, n25, June 25, WilsonSelect)

There is, we must note, one other "framework" that is possible: the framework of American military dominance, nuclear and otherwise, of the world. As the conservative commentators William Kristol and Robert Kagan have stated, Republicans "will ask Americans to face this increasingly dangerous world without illusions. They will argue that American dominance can be sustained for many decades to come, not by arms control agreements, but by augmenting America's power, and, therefore, its ability to lead." If the United States does abandon all nuclear arms control (perhaps, breaking out downward, in a manner of speaking, with unilateral cuts, the better to go upward again at will) in a bid for global dominance, and if it seeks to develop not only ballistic missile defense but what may be more serious and technically feasible—offensive, space-based weapons, then our future framework will be neither MAD nor any version of defense dominance. It will be a hellbent military competition with the other powers of the earth—not just one but many arms races, and not, in all likelihood, in the nuclear sphere alone. Some countries will likely resort to the ugly little sisters of the family of mass destruction, chemical and biological weapons.

Weaponization of space causes space nuclear war.

Larry Chin, reporter for Global Research, July 16, 2005 (globalresearch.ca, Deep Impact and the Militarization of Space, page #1)

To again quote Gagnon, "the United Nations, to their credit, created the Moon Treaty and the Outer Space Treaty as ways to circumvent the war-like tendencies of humankind as we step out into the cosmos...but the US appears to be heading in the opposite direction by creating enormous danger and conflict with the current Nuclear Systems Initiative that will expand nuclear power and weapons into space---all disguised as the noble effort to hunt for the 'origins of life' in space. [Similarly, the Deep Impact project is also being lauded for "origins of life" research breakthroughs.—LC] Only a lively and growing global debate about the ethics and morality of current space policy will save us from igniting the harsh fires of Prometheus in the heavens above us."

Space Mil = Prolif

US space weaponization = unstable prolif and arms races.

Moore, Senior editors of the Bulletin of Atomic Scientists, 2001 (Mike, "Watch out for space command," Bulletin of Atomic Scientists, v.57, n1, pgs. 24-25, ProQuest, Jan/Feb 2001)

The United States may have the best of intentions in seeking "full spectrum dominance of the battlespace." But the Melos Syndrome is powerful. Over the course of the next decade or two, you can bet that at least a few states will attempt to develop the means to counter the planned U.S. domination of space. They will not assume that U.S. intentions are always benign.

The current U.S. attempt to achieve space dominance may in the end compromise U.S. security, either by promoting an actual arms race in space or by encouraging "asymmetric responses"-biological weapons perhaps, or cyber weapons, or even nuclear weapons deliverable by means other than ballistic missiles. 1

Space Mil Destroys US Dominance

Focus on space militarization will spur arms races that the U.S. will lose, ending U.S. space leadership.

Charles V. Peña and Edward L. Hudgins, sen. defense policy analyst/form. director at Cato Institute, March 18, 2002 (Should the United States "Weaponize" Space? Military and Commercial Implications, http://www.cato.org/pub_display.php?pub_id=1286&print=Y) Advocates of a more aggressive U.S. military policy for space argue that the United States is more reliant on the use of space than is any other nation, that space systems are vulnerable to attack, and that U.S. space systems are thus an attractive candidate for a "space Pearl Harbor." But as important and potentially vulnerable as current U.S. space-based assets may be, deploying actual weapons (whether defensive or offensive) will likely be perceived by the rest of the world as more threatening than the status quo. Any move by the United States to introduce weapons into space will surely lead to the development and deployment of anti-satellite weapons by potentially hostile nations. As the dominant user of space for military and civilian functions, the United States would have the most to lose from such an arms race.

National security must be one component of total U.S. space policy, but it must certainly not be the primary component. In the post-Cold War environment--with no immediate threat from a rival great power and none on the horizon--the United States must not establish over-stated and costly military requirements for space-based resources. The military must make greater use of commercial space assets. Also, the United States should strive to foster an environment that allows commercial space activity to grow and flourish rather than use it to create a new area for costly military competition.

US Space Mil = Space Arms Races 1/

Mitchell 2001

(Gordon et al, Associate Professor of Communication and Director of Debate @ U Pittsburgh, ISIS Briefing on Ballistic Missile Defense, No. 6, http://www.isisuk.demon.co.uk/0811/isis/uk/bmd/no6_paper.html)

While the Rumsfeld Space Commission's alarmist prognostications may be based on worst-case assumptions, there is no denying that satellite dependency creates substantial security risks for the US. However, a drive to establish absolute military control of Outer Space will only exacerbate such risks by stimulating an anti-satellite weapon arms race. As defence analyst Michael Krepon argues, 'the best way to protect US satellites would be to head off such warfare in space before it ever got started, rather than to lead the charge'.⁴⁰ This sentiment is echoed in Garwin's suggestion that 'now is the time for nations to discuss and possibly to negotiate a ban on weapons in space and on anti-satellite tests'.⁴¹

US space weaponization will spark an arms race with Russia and China.

Krepon, President of Henry L. Stimson Center and Co-editor of Global Confidence Building: New Tools for Troubled Regions, **2001** (Micheal, "Lost in Space: The Misguided Drive Toward Anti-Satellite Weapons," Foreign Affairs, May/June 2001, pg. 2, LN)

The report does not specify how exactly American superiority in space should be achieved. The details were left to the incoming president and the Pentagon, which Rumsfeld now heads. And President Bush has yet to tip his hand and show what steps he plans to take. But if Rumsfeld and Bush get serious about seizing the strategic high ground of space, the fallout from their decision will be severe. The repercussions will include new international competition to put weapons in space, further strains in alliance relations, closer strategic cooperation between Russia and China, deeper partisan division at home, weakened nonproliferation treaties, and, ironically, greater difficulties in developing one of the Bush administration's cherished goals -- missile defense. For these many reasons, the temptations to embark on a new, armed space race must be avoided.

Space Mil – Space Arms Races

Space mil will spur arms races where they didn't previously exist and anger our allies.

Jonathan **Power**, reporter for arab news, Mon. May 30, 2005 (arabnews.com, Militrazing Space is Quite Unnecessary, page#1)

Space war has been a recurrent political theme since the fright America got when the Soviet Union launched its Sputnik in 1957. President Lyndon Johnson, not long after, said, "Out in space, there is the ultimate position — from which total control of the earth may be exercised". President Ronald Reagan launched his Strategic Defense Initiative, the so-called "star wars", meant to deploy space-based weapons to shoot down incoming missiles. He found his way blocked by a Democratic Congress.

But Reagan's notion pales besides that of Rumsfeld's. Rumsfeld has always talked of the need for America's total domination of space. It must be large enough and so all encompassing, argued his report, that any counter measures by other countries would be quickly nullified.

This is the ultimate in American unilateralism. It will not only make enemies where they don't exist, it will make friends in NATO wonder if they will be pressed to make up the alliance's inevitable shortfall in more run-of-the-mill programs whilst American indulges itself in its space fantasies.

Space weaponization will spur Russia and China to actually start weaponization programs.

Noah **Shachtman**, Wired.com Reporter. February 20, 2004 Online.

<http://www.wired.com/news/technology/0,1282,62358,00.html>. Accessed: 7/4/06.

Space has become an increasingly important part of U.S. military efforts. Satellites are used more and more to talk to troops, keep tabs on foes and guide smart bombs. There's also long been recognition that satellites may need some sort of protection against attack. But the Air Force report goes far beyond these defensive capabilities, calling for weapons that can cripple other countries' orbiters. That prospect worries some analysts that the U.S. may spark a worldwide arms race in orbit. "I don't think other countries will be taking this lying down," said Theresa Hitchens, vice president of the Center for Defense Information. The space weapons programs listed in the Air Force report went largely unnoticed until Hitchens circulated them in an e-mail Thursday. "This will certainly prompt China into actually moving forward" on space weapon plans of its own, she added. "The Russians are likely to respond with something as well."

Space Mil – Space Arms Races = NW 1/

DEUDNEY 1982 (Snr Rsrch at Worldwatch, deals with energy, resources, & global commons, Space the High Frontier in Perspective pg 1)

The desire to gain military advantage originally drove people to use outer space. The first use of space—to rain bombs on distant countries—created an environment of unprecedented tension and insecurity. Then reconnaissance satellites reduced tensions and made verifiable arms control agreements possible. Now, however, the military use of

space has entered a third phase. Whereas the military programs of the sixties and the seventies used space for information and communication, the superpowers have begun a race—for the first time—to place weapons of destruction in orbit. Unchecked, these developments could largely cancel out the positive benefits of space, divert funds from civilian programs with great scientific and commercial potential and increase the likelihood of thermonuclear war.

Space Mil Bad – AT: Space Mil Inevitable 1/

TIME IS NOW TO STOP POTENTIAL ARMS RACE; ARMS RACE NOT INEVITABLE, CAN STOP NOW

Moore, Senior editors of the Bulletin of Atomic Scientists, **2001** (Mike, "Watch out for space command," Bulletin of Atomic Scientists, v.57, n1, pgs. 24-25. ProQuest, Jan/Feb 2001)

Such dark outcomes are not inevitable. The U.S. drive toward space dominance is still embryonic and a new president may be in a position to definitively abort it by agreeing to work within the U.N. framework-and by beginning discussions on banning all weapons in space.

Only two states-the United States and Israel-vigorously oppose discussions that might lead to a treaty prohibiting all weapons in space. Even Canada, whose military officers work closely-as members of NORAD-with the folks at Space Command, argues against the weaponization of space.

"To the best knowledge of the international community," the Canadian government says, "outer space has not yet witnessed the introduction of space-based weapons. This may change as nations contemplate the implementation of 'space control' doctrines and policies."

That plural construction—"nations"-is diplo-speak. So far, only one nation, the United States, is talking about "controlling space." *

SPACE ARMS RACE NOT INEVITABLE

Defense Daily International 2001 ("Rumsfeld Directs DoD Changes to Raise Profile of Space Control," Defense Daily International, v.2, n19, pg. 1-3, ProQuest, May 11th, 2001)

The Commission in January reported that U.S. space systems are vulnerable to a range of attacks that could disrupt or destroy ground stations, launch systems or satellites on orbit. And, to defend itself, the United States will require development of a range of new military space capabilities, the Commission's report said.

Yesterday, Rumsfeld insisted the organizational changes are not directly tied to the Bush team's plans for global missile defense, nor one more step closer to putting weapons in space. But, when pressed, he acknowledged will put the Air Force in a position to "promote and protect our interests in space."

Space Mil = War with China

Space mil will force pre-emptive strike on China.

Jeffery Lewis, Center for Defense Information, March 11, 2004 online. <http://www.cdi.org/PDFs/scenarios.pdf>. Accessed 7/4/06

Not surprisingly, the Pentagon is extremely worried about possible Chinese ASATs, and the threat that such weapons would pose to U.S military superiority. The most recent Pentagon report on Chinese military power warns that “China is said to be acquiring a variety of foreign technologies which could be used to develop an active Chinese ASAT capability.”²² The report also warns that, at the outset of a conflict, “the PLA would attempt to weaken U.S. or other third party’s resolve by demonstrating the capability to hold at risk – or actually striking – high-value assets. The PLA would seek to leverage emerging asymmetric capabilities to counter or negate an adversary’s superiorities.”²³ These weapons could be used to blind the missile warning and radar satellites that allow the United States to target Chinese ballistic missiles on the ground or in flight, as well as the communications satellites that would direct systems such as the Common Aero Vehicle (CAV) to their targets. If the United States were to deploy space-based missile defenses, or place a large number of CAVs in orbit (aboard a space maneuver vehicle like NASA’s X-37), China might target those weapons with anti-satellite weapons as well. This situation would essentially put the United States on “hair trigger” alert in space. A Chinese military exercise, for example, involving the movement of large numbers of troops and mobilization of ballistic missile units might be mistaken in the United States as a prelude to a surprise attack. With a military strategy that absolutely depends on vulnerable space assets to protect the homeland, an American president would face the unenviable task of choosing between launching a surprise attack on China or risking the loss of space-based intelligence, strike and missile defense assets that protect against nuclear attack.

Space Wars = Debris/kill exploration

The debris from a space war would destroy our ability to explore space.

Joel Primack, September 2004 Bulletin of Atomic Sciences, "Pelted by Paint, Drowned by Debris" Online.
<http://www.thebulletin.org/issues/2002/so02/so02primack.html>

Weaponization of space would make the debris problem much worse, and even one war in space could encase the entire planet in a shell of whizzing debris that would thereafter make space near the Earth highly hazardous for peaceful as well as military purposes. The nickname "Star Wars" for missile defense all too accurately reflects the popular fantasy about how things work in space. In the *Star Wars* movies and in hundreds of other popular science fiction films, we see things blow up in space and the fragments quickly dissipate, leaving empty space behind. But in reality, space does not clear after an explosion near our planet. The fragments continue circling the Earth, their orbits crossing those of other objects. Paint chips, lost bolts, pieces of exploded rockets—all have already become tiny satellites, traveling at about 27,000 kilometers per hour, 10 times faster than a high-powered rifle bullet. A marble traveling at such speed would hit with the energy of a one-ton safe dropped from a three-story building. Anything it strikes will be destroyed and only increase the debris. With enough orbiting debris, pieces will begin to hit other pieces, fragmenting them into more pieces, which will in turn hit more pieces, setting off a chain reaction of destruction that will leave a lethal halo around the Earth. To operate a satellite within this cloud of millions of tiny missiles would be impossible: no more Hubble Space Telescopes or International Space Stations. Even communications and GPS satellites in higher orbits would be endangered. Every person who cares about the human future in space should also realize that weaponizing space will jeopardize the possibility of space exploration.

Space debris is threatening future space operations

Steven A. Mirmina, sr. attorney, July 2005,(The American Society of Intl Law American Jrnl. of Intl Law, p. lexis)

More than one hundred thousand pieces of space junk are floating in orbit around the Earth and endangering critical operations upon which the world depends every day -- such operations as weather forecasting, telecommunications, television broadcasting, global navigation, and aviation. As more governments and private entities become active in space, and if no steps are taken to reverse the growth of the orbital debris population, the likelihood of collisions between pieces of debris or between debris and active space objects will increase.

Space advancements puts humanity at risk to space debris

David Tan, Harvard Law School Tutor in Law Trinity College, University of Melbourne, 2000(The Yale Journal of International Law, Towards a New Regime for the Protection of Outer Space, lexis)

In recent years, man-made space debris or space refuse has been an environmental hazard whose seriousness is a shared concern of many scientists and policy-makers in the international community. The deployment of an ever-increasing number of man-made objects into outer space has created a potential for malfunctioning and decay. It has also resulted in a concomitant rise in the number of defunct, damaged, or abandoned objects, which, together with other debris caused by explosions and collisions, has fast become a threat to space activities. It has been estimated that there are over 7000 trackable man-made objects in space and a substantially larger number of untrackable objects. Most of the trackable objects are located in low-earth-orbit (LEO) ²⁴ with a significant number in geosynchronous orbit (GEO) an area of intense space activity. The limited empirical data reveal that objects of sizes between 0.01 and 1 centimeter can cause significant damage upon impact. Objects larger than 1 centimeter can produce catastrophic effects. Present spacecraft systems are particularly vulnerable as they have not been designed with these threats in mind. If the growth in numbers is permitted to continue without adequate measures to safeguard active space objects from damage caused by explosion, collision, or harmful radiation, it could easily result in serious accidents involving the loss of human lives or substantial property damage. Collision and interference are the major risks space debris poses to human life and active payloads. Perhaps the most serious consequence of collisions with space debris is the cascade effect: (1) As the number of space objects in earth-orbit increases, the probability of collisions between them also increases; (2) collisions would produce new orbiting fragments (secondary debris), each of which would heighten the risk of further collisions; (3) collisions and any ensuing cascading would lead to an exponential increase of debris flux and could lead to the formation of a debris belt around the Earth by the end of this century

Space debris threatens space exploration

Finch (Edward R.,attorney, former Special Ambassador to Panama, an Editor of Journal of Space Law, an elected member of International Academy of Astronautics and of Board of Governors of National Space Society, ILSA Journal of International & Comparative Law, THE FUTURE OF WORLD PEACE AND OUTER SPACE, Spring 1999, lexis)

Space debris is both natural and man made. The Space Shuttle several times changed course to avoid debris. In 1998 there has been a very large increase of about 912 United States satellites and payloads, for telecommunications, in low earth orbit. In geostationary orbit with more than 700 catalogued objects we are down to less than two degrees spacing. That is definitely "crowding," both for essential satellite controls and communications purposes. The United States Space Surveillance Network tracks 8,500 objects in low earth orbit. It is well aware of these 1998 United States 912 additions from Iridium of Motorola, from Globalstar of Loral Space and Communications, and from other Satellites. To these we must add the new satellites of the European Space Agency nations, the Japanese NASDA, the Chinese satellites, and, of course, the new Indian, African, and South American satellites. Despite the International Telecommunications Union Agreement and the World Administrative Radio conferences in 1999, and particularly in the year 2000, the satellite payload crowding, in both equatorial and polar LEO orbits, becomes serious. The linear geometric progression of increased space debris from satellites hitting on themselves, physically and communications' wise, has become a much more serious international problem than envisaged just a few years ago. To all this we add much increased natural meteor shower activity in 1998 and 1999, which is now confirmed. Thus, there is a space debris national security problem for all nations that will make news headlines in 1999 and the year 2000.

Space Nuclear Power Bad Impact (The Link is in the Auburn File) 1/

Nuclear power in space will kill 5/6 of the world's population.

Grossman, Professor of Journalism @ State University of New York, 2001 (Karl, "Disgrace in Space," The Economist, v.31, n2, pgs. 34-39, ProQuest, March 2001)

Among the junk now overhead are 37 nuclear-powered satellites put in space by the US and former Soviet Union. The operation of the satellites is over but the radioactive fuel in them is still hot and lethal and they'll be falling back to Earth in the centuries ahead.

The use of nuclear power in space - despite serious accidents involving both the US and Soviet/Russian nuclear space programmes - continues. The next proposed US launch of a nuclear-powered device is scheduled for 2003 when NASA plans to send a plutonium-powered space probe called Europa to the moon of Jupiter of that name. The plutonium system is to generate electricity to power onboard instruments. NASA claims it is necessary, that at that distance from the sun, photovoltaic solar cells can't serve as a substitute (as they now do on satellites because of accidents in which nuclear-powered satellites dropped to Earth dispersing radioactive material). Yet, also in 2003, the European Space Agency will be sending up its Rosetta space probe which will be using high-efficiency solar cells instead of plutonium to produce electricity - and Rosetta is to go beyond the orbit of Jupiter to rendezvous with the comet Wirtanen. NASA's insistence on using nuclear power in space is due, in part, to its desire to coordinate its operations with the US military which regards nuclear power as necessary for the high-powered weapons such as lasers it would like to deploy in space in coming years.]

Civilian Employees CP

The DOD should focus on civilian staff recruitment to maintain readiness.

Senator George V. Voinovich, Chairman, 2001(The National Security Implication of the Human Capital Crisis, http://www.senate.gov/~gov_affairs/032901_voin.htm) Good morning, and thank you all for coming. Today, the Senate Subcommittee on Oversight of Government Management and the House Subcommittee on Civil Service and Agency Organization are meeting to examine how the human capital crisis in the federal government is affecting and indeed endangering this nation's national security establishment and the ability of the federal government to defend our nation and its interests around the world. This is especially true with the civilian workforce of the Department of Defense. Today's hearing is the Senate Subcommittee's eighth on the human capital crisis.

However, the most vital factor in U.S. national security cannot be overlooked: human capital, the men and women of the federal workforce. It doesn't make headlines, but the federal workforce is in crisis. The average federal employee is 47 years old. During the presidential campaign both candidates promised to reduce the number of federal employees. It is an easy promise to keep. By 2005, over half of the 1.8 million non-postal civilian employees will be eligible for either early or regular retirement. An even greater percentage of the Senior Executive Service, the government's core managers, will be eligible to leave.

The amount of knowledge and experience that is literally going to walk out the door by the end of the decade is unquantifiable. Perhaps even more concerning, government service is no longer the career path of choice for young Americans, for a variety of reasons. No government-wide plan exists to reshape our workforce so that it can respond to the problems of today and the challenges of tomorrow.

To some, the departure of so many federal employees is welcome news. But it could bring paralysis to our government and it has ominous implications for our national security.

Current problems within the defense civilian workforce illustrate the point. Despite their critical role in supporting the armed forces, defense civilian employees are often overlooked. Throughout the 1990s, the workforce was downsized by 400,000 positions, largely through attrition and retirements.

Unfortunately, this process paid little heed to reshaping the workforce to meet changing requirements. As a result, the defense workforce faces serious skills imbalances in areas such as linguistics, acquisition, and research and development. For example, Wright-Patterson Air Force Base in Dayton, Ohio, conducts vital scientific research for the Air Force, but workforce reductions threaten its ability to continue to develop cutting-edge technologies. Last year, Senator Cochran's Governmental Affairs Subcommittee examined the shortage of skilled linguists in the Foreign Service, law enforcement and international trade agencies. And the Defense Department already faces a shortage of acquisition personnel which will be exacerbated by anticipated retirements over the next few years. This could severely hinder the ability of the Department to intelligently purchase the equipment and supplies needed by the armed forces.

NASA CP

DOD must work with NASA

The DOD must work with NASA to develop next generation launch capabilities.

Stephen P. Randolph, 2002, National Defense university,

http://www.ndu.edu/inss/books/Books_2002/Transforming%20Americas%20Mil%20-%20CTNSP%20-%20Aug%202002/14_ch12.htm, summary

The Department of Defense can make good use of this time to buy down the risk in developing next-generation systems. In particular, the space-based radar offers significant strategic and operational capabilities. Clustered “virtual satellites” offer considerable operational potential, and focused development of these systems should continue. Throughout this period, DOD should take a stronger role in the development of next-generation launch technology than it has to this point, working in cooperation with NASA.

Focus on NASA key to solve asteroid

Supporting NASA is key to prevent an inevitable asteroid from hitting earth

Richard A. Posner is a judge on the United States Seventh Circuit Court of Appeals, a senior lecturer at the University of Chicago law school, 6 Chi. J. Int'l L. 511, Chicago Journal of International Law Winter, 2006 Chi. J. Int'l L. 511, lexis

An even more dramatic example of neglect of low-probability/high-cost risks concerns the asteroid menace, which is analytically similar to the menace of tsunamis. NASA, with an annual budget of more than \$ 10 billion, spends only \$ 4 million a year mapping dangerously close large asteroids. ⁹ At that rate, NASA may not complete the task for another decade, even though such mapping is the key to an asteroid defense that may give us years of warning. Deflecting an asteroid from its orbit when it is still hundreds of millions of miles away from hitting the Earth appears to be a feasible undertaking. ¹⁰ Although asteroid strikes are less frequent than tsunamis, there have been enough of them to enable the annual probabilities of various magnitudes of such strikes to be estimated, and from these estimates, an expected cost of asteroid damage can be calculated. ¹¹ As in the case of tsunamis, if there are measures, beyond those being taken already, that can reduce the expected cost of asteroid damage at a lower cost, thus yielding a net benefit, the measures should be taken, or at least seriously considered. Later I will show that such an analysis indicates that NASA should be spending much more on asteroid mapping.

Air Force CP

The Air Force is the key actor for militarizing space due to already advanced technology in that field

Benjamin S. Lambeth, 2003, (RAND Sen. Staff, Mastering the Ultimate High Ground, Pg. 150-151)

With the most important organizational and management hurdles now either successfully negotiated or at least identified, the next round of the military space debate should concern investment priorities and program sequencing. The Defense Science Board (DSB) concluded in February 2000 that the United States currently enjoys undisputed space dominance, thanks in large part to what the Air Force has done over the past four decades to build a thriving American military space infrastructure. 42 Air Force contributions toward that end expressly cited by the DSB included a robust space launch and support infrastructure, an effective indications and warning and attack- assessment capability, a unique ground-based space surveillance capability, global near-real time surveillance of denied areas, the ability to disseminate the products of that capability rapidly, and a strong C3 infrastructure for exploiting space systems. For all the criticism the Air Force has endured from some quarters in recent years for not having done more to underwrite the nation's military destiny in space, the fact is that in space, as in life itself, one must develop good crawling skills before walking. That the Air Force has progressively made space such an effective enhancer of terrestrial military operations by all services should be roundly applauded, not faulted.

The Air Force can solve—just needs to use money for space

Benjamin S. Lambeth, 2003, (RAND Sen. Staff, Mastering the Ultimate High Ground, Pg. 163)

With the Space Commission's recommendations and OSD's resultant empowerment of the Air Force now formally promulgated, the charter for the Air Force to move ahead in space seems firmly in hand. To fulfill that charter, the Air Force needs to continue embracing the endowment it was so generously given by the Space Commission. This means, first and foremost, accepting and internalizing the important, indeed fundamental, contrasts between air and space, as well as the need for clear organizational differentiation between the two mediums, along with their continued operational integration. As noted earlier, it is all well and good for Air Force air and space professionals at all levels to be encouraged by their leadership to think like a fellowship of like-minded airmen up to a point. Yet those professionals should not be treated as though they were interchangeable. On the contrary, they live in separate cultures, have separate job responsibilities, and thrive on separate skill sets. Some distinctive "tribes" within the Air Force are not only unavoidable but desirable-and even essential.

Air Force best solves military readiness

Benjamin S. Lambeth, 2003, (RAND Sen. Staff, Mastering the Ultimate High Ground, Pg. 153)

In light of that, a prime imperative for the Air Force should be to continue leading from the front by advocating a disciplined space control mission- development road map and investment strategy. Such an approach might usefully start out by describing, in a clear and convincing way, the growing vulnerability of existing and planned U.S. space assets to present and potential threats. It might also emphasize, in the words of two RAND colleagues, that preparing to defend critical space capabilities and to attack those of opponents "is not a call for space fleets, although some such forces may be needed eventually, " but rather "is a prescription for [enhanced] situational awareness incorporating space and theater perspectives coupled with responses employing the full range of means currently available in joint military operations." 45

Air Force CP

Air Force reforms spur increased space recruitment

Benjamin S Lambeth, 2003(Rand Sen. Staff. Mastering the Ultimate High Ground, 133-135)

Toward that end, what seems most indicated today for managing the seams between space and the air, land, and maritime environments is a perspective focused on *operational integration* accompanied by *organizational differentiation*. Through such a bifurcated approach, space can be harnessed to serve the needs of all warfighting components in the joint arena while, at the same time, being rightly treated its own domain in the areas of program and infrastructure man funding, cadre-building, and career development. After all, AFSPC was established to give the Air Force's space professionals a proper home in which to develop the required special competence in space mission execution. That rationale needs to be sustained and further entrenched, not lost in a vain effort to meld Air Force air and space professionals in a manner that risks making dilettantes of all. It is well enough in principle for the Air Force to strive to give its air and space communities a more common language and vocabulary, as well as a better mutual appreciation of what each community does. But beyond a point, as General Jumper has observed on numerous occasions, the military space career field is a unique culture that needs cultivating in its own right both in the Air Force's and the nation's best interest. To be sure, in working toward the further refinement and maturation of a distinctive and duly backstopped space career field within the Air Force, air and space professionals at all levels must understand that while the organizational differentiation of space from air will be crucial for the promise of space to be most fully realized for joint warfighters, any emergent "space culture" that may ensue from it must not be isolated from the mainstream Air Force, as it was during the long years when it was in the clutches of the systems and acquisition communities, but rather must be rooted from the start in an unerring focus on the operational level of war. Toward that end, such post-Desert Storm initiatives as the establishment of a space division within the USAF Weapons School at Nellis and the subsequent inclusion of a Space Warfare School at AFSPC's Space Warfare Center at Schriever AFB, Colorado represent important steps in the right direction. They should be further nurtured and substantially broadened because both aim expressly to produce operationally literate space warfare professionals and to proliferate operationally minded space expertise where it is most needed throughout the Air Force and in key joint warfighting centers worldwide. Beyond that, as Air Force space professionals become ever more conversant with the operational imperatives of joint warfighting, they have a collective obligation to bend every effort to rise above the fault lines and fragmented subcultures that unfortunately still persist within their own community (the National Reconnaissance Office, the nascent information operations guild, and the myriad niches of the C4ISR world, for instance). Only then can they form a more coherent and interconnected center of space excellence able to speak credibly about what space brings to joint-force employment—not just across the chasm that still separates them from Air Force airmen but also between and among themselves as they develop and mature in their own right. 15 The initiative for following through on such needed and overdue measures, which typify the essence of what is meant by the operational integration of space with other warfighting elements, lies squarely at the feet of today's Air Force space community and its senior leaders.

Air Force action key—the Air Force is highly integrated into space

Benjamin S Lambeth, 2003(Rand Sen. Staff. Mastering the Ultimate High Ground, 135-6)

By the same token, those on the more traditional side of the Air Force with career roots in the fighter, bomber, and other flying communities also have a solemn obligation to understand and internalize the fact that the Air Force is now fully in the space business as much as it ever was in the force-projection air business. If the Air Force is to vindicate the generous charter it was given by the Space Commission, it must press for needed space systems modernization with every bit the same energy and passion that it shows for such centerpiece programs as the F-22 air dominance fighter (recently redesignated F/A-22 to capture the aircraft's significant ground-attack potential and intended all-weather day and night deep-strike mission portfolio). The Secretary of the Air Force, the Honorable James Roche, could not have been more emphatic on this point when he recently declared that the Air Force "is entering a new era of air and space power" and that as the service continues to evolve to meet the requirements of this new era, "we must ensure [that] our space forces and equipment and concepts of operations remain as innovative and capabilities based as those we are now developing for our airbreathing systems." Continuing in the same vein, Secretary Roche commander, 14th Air Force, Vandenberg AF13, Calif., for calling my attention to these latter points during a conversation in added that "space capabilities in today's world are no longer [just] nice to have. They are becoming indispensable at the strategic, operational, and tactical levels of war."

UN/International CP

UN/International coalition key to exploration

The Solution is an International Coalition

Evan R. Seamone, B.A. Sociology, University of CA, LA. March 2002 (87 *Iowa L. Rev.* 1091, lexis)

The international community should endeavor to mitigate the threat of an asteroid or comet impact by allocating the proper resources to the task. [*1108] Disaster response personnel and officials with the capacity to enact, carryout, and enforce binding legal obligations must be adequately trained and empowered. True mitigation requires plans to maintain communications in the event of an impact, to evacuate impact zones, and to institute proper response measures for guaranteeing human survival.⁷⁹ Without implementing these measures in a coordinated and collective manner, policymakers are confined to wishing on the stars, hoping that space bodies will miss the Earth or disintegrate as they approach the Earth's stratosphere.⁸⁰

The UN must act to spur space exploration

Ezra J. Reinstein, Associate, Kirkland & Ellis, 1999, ("Owning Outer Space", Northwestern Journal of International Law & Business), pg.19

On what basis should ownership be awarded? The legal system's answer to this question is crucial, because it determines what commercial actors will do. If the rule of ownership was no more than "first come, first served," with ownership going to the first person to grab a celestial body, an [*85] unmitigated land-rush would ensue. Of course, the amount of wealth dependent on being first-in-time would doubtless breed the criminality and outright sabotage witnessed in the American West of the gold rush era. This, along with efficiency concerns, dictates that the legal regime must not operate on a pure principle of first come, first served. Clearly there must be a measure of centralized organization. I am not suggesting that private industry cede its independent judgment to an intergovernmental command-and-control planning board. What I am suggesting is that an international body, carrying the legitimacy of the United Nations, coordinate private industry so that the market forces can operate most efficiently. We might call it the United Nations Space Exploitation Registry, and it might be founded on a document like this (commentary in bracketed italics):

Multilateral space policy solves best

Raclin Grier C. Partner, Heron, Burchette, Ruckert & Rothwell, Washington, D.C. B.A. 1975, J.D. 1978, Northwestern University Fall, 1986 From Ice to Ether: The Adoption of a Regime to Govern Resource Exploitation in Outer Space

From a purely practical standpoint, unilateral action by the United [*757] States to explore and exploit lunar and other resources would be extremely inefficient. Such an undertaking would require duplicative research and development, construction, transportation, and management efforts and activities that could be shared more profitably among numerous countries. As the United States has recognized the practicality of shared efforts regarding its plan to share the construction of the space station with Japan, Canada, and the European Space Agency,¹⁹⁵ so will the world's countries undoubtedly find it advantageous to unify in order to explore outer space. The early establishment of a predictable method of sharing the benefits of extraterrestrial resource development also will lessen the likelihood that inefficient "get-it-while-you-can" activities will characterize development efforts.

Private CP

Private CP solvency

Commercial groups can enter space

Molly K. Macauley, Senior Fellow, Resources for the Future, Washington, DC, ARTICLE: SYMPOSIUM: ISSUES IN SPACE LAW: Flying in the Face of Uncertainty: Human Risk in Space Activities, Copyright (c) 2005 The University of ChicagoChicago Journal of International LawSummer, 2005, lexis

Currently, any individual or private entity wishing to conduct a commercial launch or reentry (when a launch vehicle returns to Earth), or operate a launch or reentry site in the US must obtain a license from the Federal Aviation Administration ("FAA"). To date, the vehicles have been unmanned, with the exception of *SpaceShipOne*. In the wake of *SpaceShipOne*'s success, the US Congress has debated how to regulate commercial human spaceflight, arguing at length about how to handle crew and passenger safety and the appropriate scope of authority to be vested with the government.³⁰ Some legislators supported allowing privately-owned and operated spacecraft to carry paying passengers on a "fly at your own risk" basis.³¹ This proposal would make private spaceflight relatively free from regulation, much like the early aviation barnstorming era. The Associate Administrator for Commercial Space Flight at the FAA expressed a view that passengers "should be able to board their vehicles with the same freedom as the stunt pilots who pioneered commercial aviation."³²

The successful launch of *SpaceShipOne* ushered in the era of private space exploration and resource-gathering

John S. Lewis, Prof. of Planetary Sci. and Co-Dir., Space Eng. Research Center, U of Arizona, **and** Christopher F. Lewis, J.D. J. Reuben Clark Law School 2005 "A Proposed International Legal Regime for the Era of Private Commercial Utilization of Space." George Washington Int. Law Review, lexis

In June 2004, SpaceShipOne carried out history's first private-sector launch of an astronaut into space. A few months later, on October 4, 2004, the same vessel twice reached an altitude of over 100 kilometers, thus winning the \$ 10 million Ansari X-Prize. Since then British entrepreneur Richard Branson contracted with the developers of *SpaceShipOne* to build a larger version of that vehicle for use in suborbital space tourism. His company, Virgin Galactic, has reportedly already collected \$ 1.4 billion in down-payments for tickets at \$ 200,000 per person. A new \$ 30 million prize, announced in the wake of the Ansari X-Prize competition, awaits the first company to demonstrate successful round trips of passengers to low Earth orbit. These events announced to the world that private companies are serious players in accessing - and commercializing - outer space. Although private companies may benefit financially from space tourism and the launching of satellites, it is hard to ignore a potentially [*746] far more lucrative motive for entering space: the mining and utilization of near-Earth space resources that exist on the Moon and near-Earth asteroids (NEAs). Among these resources are materials for use in space, materials for return to Earth, and sources of energy to use on Earth. Some have said that "three principle forces - the academic, military, and commercial - interact to impel humanity into space."⁴ Although the academic and military forces have played a significant role for decades, it is now the era of private commercial utilization of space. This Essay: (1) provides a brief introduction to space resources and their emerging commercial relevance; (2) offers a brief summation and critique of international law relating to the utilization of space resources; and (3) introduces a proposal for an international legal regime to govern commercial activities in space.

Private CP Solvency

Private companies have the technology and resources to go to space.

Kelly M. Zullo, J.D., Georgetown University Law Center, July 2002, (Georgetown Law Journal, 90 Geo. L.J. 2413, lexis)

In 1998, the number of private commercial space launches from the United States exceeded the number of government missions.¹⁸¹ The worldwide commercial satellite business is a \$ 77 billion industry, providing over 77,000 highwage, high-tech jobs.¹⁸² Roughly half of the revenue from the commercial satellite business is earned outside of the United States and approximately half of these jobs are located outside of the United States. Commercial exploitation of space is inevitable. However, commercial exploration of space will flourish only when the legal regime provides certainty in property rights that will give the economic incentive to space pioneers. Under the current international space law framework, commercial space enterprises face legal uncertainty introduced by the Moon Treaty. Developed and developing nations disagree about the interpretation of the Moon Treaty's "common heritage of mankind" language and the provision calling for the establishment of an international authority to govern exploitation of space resources. The international community needs to clarify the status of property rights in space to allow market-based principles to govern commercial space activities. With such a legal framework in place, space exploration and use will commence for the benefit of all mankind. Now, more than two decades later, commercial enterprises are discovering ways to exploit natural resources in space profitably and will need a legal regime that can provide certainty in their investments. The Human Genome Project is a recent illustration of how private involvement in a scientific project helped advance the pace and reduce the cost of a highly technical undertaking originally started by the government. The Human Genome Project was originally scheduled to last fifteen years, but, in 1998, "spurred by competition from the private sector," the government-run program moved the projected completion date up two full years.¹⁹⁷ When the government began its sequencing activities, the cost of sequencing a single DNA base was about \$ 10 and now "sequencing costs have fallen about 100-fold to \$.10 to \$.20 a base and still are dropping rapidly."¹⁹⁸ The early government research and development in gene sequencing enabled private ventures to enter the market.¹⁹⁹ The private companies then "furnish valuable commercial services that the government cannot provide, and the taxes returned by their successes easily repay fundamental public investments."²⁰⁰ The advancements made possible by private involvement in the Human Genome Project illustrate the importance of getting private companies directly involved in space exploration and exploitation. Private commercial enterprises are on the verge of entering the space exploration business.²⁰¹ In fact, nineteen teams from around the world are currently competing for the X Prize.²⁰² Patterned after aviation prizes that sparked aircraft design at the beginning of the twentieth century, the X Prize offers ten million dollars to the first team that designs a privately-financed spaceship that successfully launches three people into a sub-orbital altitude of 100 kilometers [*2440] on two consecutive flights within two weeks.²⁰³ The X Prize founders hope that the contest will help provide affordable space travel for business and recreational users.²⁰⁴ However, as these ventures bring the promise of private commercial space exploration closer, the international legal regime needs to provide certainty and the opportunity to profit from successes. Companies cannot afford to invest the capital necessary for space ventures if ambiguous laws force them into costly and time-consuming litigation in an attempt to protect their investment.

Private corporations solve best—they can do it more cheaply and effectively

Major Willson (B.A., C.W. Post College; J.D., Touro School of Law; LL.M., The Judge Advocate General School) is the International & Operational Law Attorney, Army Space Command, Colorado Springs, Co. 2001 (An Army View of Neutrality in Space: Legal Options for Space Negation, lexis)

Military budgets are getting thinner, and the reality is that the commercial sector can provide satellite services cheaper than States can. Even the U.S. military uses commercial satellites for a large portion of its space support.²³ During Desert Storm twenty-five percent of the U.S. military communications was provided over commercial satellite systems.²⁴ One day we may find ourselves defending against armed attacks supported by commercial satellite companies, possibly even the same companies supporting our forces.²⁵ Not too long ago, the security implications were just coming into perspective.

Private CP Solvency

Minor alterations to the legal regime spur investment in space by corporations

Hertzfeld (*Henry R. and Frans G. von der Dunk, Adjunct Professor of International Affairs, Elliott School of International Affairs, Space Policy Institute and the Center for International Science and Technology Policy, George Washington University, Chicago Journal of International Law, Bringing Space Law into the Commercial World: Property Rights without Sovereignty, Spring 2005, lexis*)

Regardless of this near-term problem, it is important to evaluate the true meaning of the lack of sovereignty in space in a commercial context. Following such analysis, this Article concludes that the lack of sovereignty will not deter future private space ventures to the extent commonly believed. Ownership problems raised by international agreements have solutions not requiring a major change in existing space law, but rather carefully drafted additions and amendments to the current legal regime.

Property rights are irrelevant—corporations can profitably invest in space

Hertzfeld (Henry R. and Frans G. von der Dunk, Adjunct Professor of International Affairs, Elliott School of International Affairs, Space Policy Institute and the Center for International Science and Technology Policy, George Washington University, Chicago Journal of International Law, *Bringing Space Law into the Commercial World: Property Rights without Sovereignty*, Spring 2005, lexis)

Corporations exist to make profits, and property rights only matter to the extent that they are necessary to fulfill the objective of maximizing profit. Popular literature and the statements of corporate executives gives the impression that unless companies can obtain ownership to space territory, they will not be able to invest in space activities profitably. But in the reasonably near future, no company operating in space will likely need outright ownership of space territory, including land on the moon. Arguments affecting today's businesses about the ownership of space territory only directly apply to businesses currently attempting to sell plots of space territory to unsuspecting citizens, activities directly violating long-standing space treaties.

Soft Power/M-lat

Plan angers allies

Space militarization angers allies.

Tim **Weiner**, journalist, May 18, 2004(Air Force Seeks Bush's Approval for Space Weapons Programs, New York Times)http://www.thehazefilter.com/pdf/space_weapons.pdf

The Air Force, saying it must secure space to protect the nation from attack, is seeking President Bush's approval of a national-security directive that could move the United States closer to fielding offensive and defensive space weapons, according to White House and Air Force officials.

The proposed change would be a substantial shift in American policy. It would almost certainly be opposed by many American allies and potential enemies, who have said it may create an arms race in space.

A senior administration official said that a new presidential directive would replace a 1996 Clinton administration policy that emphasized a more pacific use of space, including spy satellites' support for military operations, arms control and nonproliferation pacts.

Link – US unilateral action in space hurts multilateralism

Raclin Grier C. Partner, Heron, Burchette, Ruckert & Rothwell, Washington, D.C. B.A. 1975, J.D. 1978, Northwestern University Fall, 1986 From Ice to Ether: The Adoption of a Regime to Govern Resource Exploitation in Outer Space

Recent events regarding the Moon Treaty, the LOS, and the Antarctic Treaty system reveal that the United States may not be entirely free to proceed at its own will. It is generally recognized that the United States has certain practical as well as moral obligations not to act in a manner adverse to the interests of other countries, particularly developing countries. ¹⁸³ The United States has found it advantageous for these reasons to enter into numerous treaties regulating its activities beyond its [*755] own territories. Some of these treaties -- such as the Principles Treaty -- recognize some characteristic of *res communis* with regard to the territory bound by the treaty. ¹⁸⁴ Similarly, in an effort to obtain the cooperative efforts of its partners in the proposed United States space station, ¹⁸⁵ the United States has agreed to a variety of groundrules which significantly undercut the United States' ability to dominate the station's affairs. ¹⁸⁶ For example, the United States has agreed to share with its partners overall management authority for the station, to guarantee to its partners open, continuous, and nondiscriminatory access to the station via the space shuttle, and even to grant access to the station via other launch systems in any manner compatible with safe and nondisruptive operation. ¹⁸⁷

Initially, the United States will continue to be confronted with the requirement that it must seek international accord regarding its activities in outer space in order to maintain cohesive and amenable relationships on the ground. Recent steps by developing countries to exercise collective political power, while not entirely successful, have illustrated to the United States that strength in numbers renders the developing countries a force to be reckoned with, even in those areas where the countries are not actively engaged in resource exploitation activities. The terms adopted into the LOS and the Moon Treaty reflect this fact and even the Antarctic Treaty system has been affected by the efforts of developing countries not party to the Antarctic Treaty. ¹⁸⁸

I-Law

Violates Outer Space Treaty, NPT

The United States has so far abided by the Outer Space Treaty

Kelly M. Zullo, J.D., Georgetown University Law Center, July 2002, (Georgetown Law Journal, 90 Geo. L.J. 2413, lexis)

During the Outer Space Treaty negotiations, the meaning of "province of mankind" was described as indicating that celestial bodies "are available for the undivided and common use of all states on earth, but are not jointly owned by them."³⁵ In 1958, early in the negotiations, the U.S. Ambassador to the United Nations, Henry Cabot Lodge, informed the United Nations that the United States's goal was to ensure that "outer space will be used solely for the benefit of all mankind."³⁶ Since then, the United States has upheld the principle expressed in the Outer Space Treaty. In fact, Congress codified this principle in the Act establishing NASA by declaring that "it is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind."³⁷

US space militarization violates the Outer Space Treaty

John S. Lewis, Prof. of Planetary Sci. and Co-Dir., Space Eng. Research Center, U of Arizona, **and** Christopher F. Lewis, J.D. J. Reuben Clark Law School 2005 "A Proposed International Legal Regime for the Era of Private Commercial Utilization of Space." George Washington Int. Law Review, lexis

The Outer Space Treaty, which ninety countries have ratified, forms an important part of international law and establishes many fundamental legal principles that relate to the utilization of space resources. It states that "the exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind."¹³ Furthermore, it asserts that "outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."¹⁴

US weapons in space violate the NPT

Michel Bourbonnieri winter 2005 Southern Methodist University School of Law, Journal of Air Law and Commerce NATIONAL-SECURITY LAW IN OUTER SPACE: THE INTERFACE OF EXPLORATION AND SECURITY, lexis

The control of nuclear weapons is an important aspect of space national-security law. Attacks on space assets do not necessarily require advanced space technology. The effects of a nuclear detonation either in outer space, or occurring within a very high altitude, can cause havoc with space assets, effectively destroying satellite constellations within the Low Earth Orbit ("LEO"). Concerns of the international community over the proliferation of nuclear weapons technology were addressed in the Treaty on the Non-Proliferation of Nuclear Weapons ("NPT"), which has been described as "the centerpiece of international efforts to control the spread of nuclear weapons." The Treaty establishes as a Nuclear Weapons State, one that had, before January 1, 1967, manufactured and detonated a nuclear weapon. Five nuclear powers, the United States, the United Kingdom, Russia, France, and China, have thus legitimized their nuclear arsenals. The transfer of nuclear weapons technology to any recipient, whatsoever, directly or indirectly, is proscribed by the NPT. Nuclear Weapons States undertake to not transfer nuclear weapons technology. Reciprocally, non-Nuclear Weapons States undertake to not receive or manufacture nuclear weapons. In exchange for their undertaking to not acquire or manufacture nuclear weapons, States may receive assistance in the development of nuclear power destined for peaceful uses. Furthermore, each of the parties to the treaty, including the five Nuclear Weapons States, agree to "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

Violates Arms Control Treaties

US weapons in space violate arms control treaties

Dana J. Johnson, Member of board of directors of National Space Society, 2002(Space Weapons Earth Wars, pg. 106)

Existing treaty provisions limit U.S. space weapons, explicitly restricting the basing of missile defenses or weapons of mass destruction in space. A decision to base missile defenses in space would require changing or abandoning the ABM treaty and, probably, the associated arms control treaties as well. There is also a difference in liability for use of space weapons against the earth that could make a user liable for terrestrial damage the weapon may cause, unless the use and subsequent damage resulted from actions the claimant state had taken with the intent to cause damage (which should be the case for weapons used in legitimate self-defense).

Spending

Plan expensive

Space militarization is outrageously expensive

Charles Park, University of Houston Law Center; M.A., New York University; B.A., Columbia University, Spring 2006 (Houston Journal of International Law, INCREMENTAL STEPS FOR ACHIEVING SPACE SECURITY: THE NEED FOR A NEW WAY OF THINKING TO ENHANCE THE LEGAL REGIME FOR SPACE, lexis)

First and foremost, the international community must stress that orbital space weapons arguably provide only marginal advantages when comparing military missions with space weapons and without them.¹⁷² This point is only accentuated by the fact that the United States also has the dominant power projection capabilities from its armed forces.¹⁷³ Other costs that must be factored into the process of space weaponization include the costs of developing, constructing, implementing, and operating what would be an outrageously expensive space weapons system.¹⁷⁴ Just as important as these monetary costs, which would require either the creation of new funds or the reassignment of nondefense money, are the inevitable political costs that accompany being the first nation to weaponize space, like being labeled "power hungry."¹⁷⁵

Getting to space is ridiculously expensive

Dana J. Johnson, Member of board of directors of National Space Society, 2002(Space Weapons Earth Wars, pg. 104)

Launching objects into space is notoriously expensive on both a per pound and a per launch basis. Placing weapons in space should be expensive for the same reasons. Orbiting and orbiting weapons will always require a greater effort than launching one on a ballistic trajectory. The extra effort is roughly equivalent to that needed to launch the long-range missile's weapon again, but this time at medium range. However, neither the absolute cost per pound of transporting space weapons nor the effort relative to that for missile weapons is a complete enough comparison of space and terrestrial weapon logistics to establish a clear-cut preference.

Low cost technology for space exploration and militarization is not feasible

O'Hanlon, E.Michael Ph.D. Princeton University, 2004 (Neither Star Wars Nor Sanctuary 61-2)

One general theme about future technology is that, despite the tendency of military strategists to rave about defense transformation and a coming revolution in military affairs, many satellite development programs are currently advancing more slowly than once hoped. Leaving aside fundamental constraints of the laws of physics, immediate engineering challenges are making it harder than expected to develop systems that are generally believed to be within reach. For example, the nation's next generation of Imagery satellites, known as the Future Imagery Architecture, has recently been delayed by more than a year and grown by more than \$3 billion in cost. Problems also afflict next-generation global positioning system satellites, space-based infrared satellites at higher and lower orbits (SBIRS-high and SBIRS-low), and communications systems (such as the advanced extremely high-frequency satellite System) Cheaper and/or reusable launchers are proving hard to develop as well, as discussed below. Most futuristic technologies remain just that.

Relations

Hurts Russo/Sino Relations

Space weaponization destroys US relations with Russia and China

O'Hanlon, E.Michael Ph.D. Princeton University, 2004 (Neither Star Wars Nor Sanctuary 21-2)

To proceed on the basis of worst-case assumptions and hasten development of ASAT capabilities would be to ignore the serious political and strategic consequences of any U.S. rush to weaponize the heavens. American satellites, so dominant today, could be put at risk by the countervailing actions of other countries more quickly than they would be otherwise. Even more important, relations with Russia and China, which have improved in recent years but remain fragile, could suffer. Even if the United States someday does put weapons in space or develop weapons against objects in space, timing matters in international politics. Witness how the events of September 11, 2001, and the focused personal diplomacy between Presidents George W. Bush and Vladimir Putin preserved good relations between the United States and Russia even after the United States' withdrawal from the ABM Treaty in June 2002—an event that could have seriously damaged bilateral relations if it had occurred only a little earlier. Today, weaponizing space could reinforce the image of a unilateralist United States too quick to reach for the gun and disinclined to heed the counsel of others. Given that almost all countries routinely support an annual UN resolution calling for a treaty outlawing the weaponization of space, and that most currently find the United States too ready to flex its military muscle, any near-term decision to weaponize space would be very bad timing.

Space weaponization alienates Russia and China

O'Hanlon, E.Michael Ph.D. Princeton University, 2004 (Neither Star Wars Nor Sanctuary 21-2)

That said, the United States should pursue some types of binding arms controls on military space activities and, even More important, show unilateral restraint on its space activities in a number of ways. It should agree to a ban on any tests in space that would create debris (notably, tests of antisatellite weapons that use explosives or collisions to destroy targets). It should publicly declare that it will forgo space tests of any anti-satellite system for the foreseeable future. And it should also seriously consider revising its military space doctrine to declare that it will not even develop dedicated ASAT technologies in the coming years. This policy will probably prove temporary, but because the coming years will be critical for the further maturation and improvement of great power relations (especially with Russia and China), improving the prospects for strategic stability in that period is important. If and when the United States needs to change its policy in the future, the danger of strategic fallout may be reduced.

Politics

Plan popular

There is a growing push by the public for further exploration of space

Molly K. Macauley, Senior Fellow, Resources for the Future, Washington, DC, ARTICLE: SYMPOSIUM: ISSUES IN SPACE LAW: Flying in the Face of Uncertainty: Human Risk in Space Activities, Copyright (c) 2005 The University of ChicagoChicago Journal of International LawSummer, 2005, lexis

Although the idea remains exceedingly controversial, momentum is building in the US space program for an ever-increasing role of humans in space. This momentum is evident in the renewed emphasis on human exploration of the moon and Mars. It is also evident in the private sector's growing interest in space tourism. Even if the move to greater involvement of humans in space is gradual, space exploration and tourism are attracting the government and private funding necessary to underwrite initial steps in this direction.

Space tourism is rising in popularity

Molly K. Macauley, Senior Fellow, Resources for the Future, Washington, DC, ARTICLE: SYMPOSIUM: ISSUES IN SPACE LAW: Flying in the Face of Uncertainty: Human Risk in Space Activities, Copyright (c) 2005 The University of ChicagoChicago Journal of International LawSummer, 2005, lexis

A privately built and financed spacecraft, *SpaceShipOne*, succeeded in 2004 in launching and returning humans to sub-orbital space (an altitude of sixty-two miles) twice within six days.²⁵ The team behind the spacecraft collected the ten million dollar Ansari X Prize and magnified attention to *private* human spaceflight.²⁶ (For several years, Russia has offered seats on its *Soyuz* spacecraft for about twenty million dollars per passenger and has twice flown tourists.)²⁷ After the success of *SpaceShipOne*, a British businessman, Richard Branson, quickly entered into a licensing agreement with the owners to build five spacecrafts for passengers. Branson's business plan within the next three years is to fly fifty passengers a month -- each paying two-hundred thousand dollars for a two-hour flight.²⁸ Shortly after the agreement, a hotel magnate offered another **[*138]** prize, for fifty million dollars, for the first private-manned mission to orbit the Earth.²⁹

Empirically space weapons programs are spun for massive public popularity

Gordon R. Mitchell, Member of Center of Strategic and International Defense of TDM, 2001

(Japan-U.S. Missile Defense Collaboration: Rhetorically Delicious, Deceptively Dangerous The Fletcher Forum of World Affairs 25 *Fletcher F. World Aff.* 85)

The historical record shows that in the short term, U.S. Star Wars advocates enjoyed great political success in "stealing the language and cause" of the American peace movement, by selling BMD rhetorically as a defensive weapon, largely neutralizing nuclear freeze activism in the process. In fact, the political **[*90]** campaign to package SDI as a tool of disarmament eventually gathered so much momentum that it took on a life of its own, with missile defense proponents continuing to echo Reagan's promise of "BMD = disarmament," even when it became clear that such a fanciful notion was a scientific chimera.

Bush supports the plan

Bush supports the plan

Sean R. Mikula, Lawyer and former Military Intelligence Officer, 2001, (Blue Helmets in the Next Frontier: The Future is Now, The Georgia Journal of International and Comparative Law, lexis)

However, there is an argument to be made that the United States might be inclined to join in the creation of the ISF. First, the United States has forcefully articulated its support for the ISF's first objective, namely, the creation of a missile defense.²⁶ The Bush administration has clearly indicated strong support for some form of national missile defense, stationed in space or elsewhere.²⁷ By selecting Donald H. Rumsfeld, an ardent proponent for a national missile defense, as Secretary of Defense, President Bush "signaled that the politically and diplomatically divisive goal of building a shield against nuclear missiles will be at the core of the new administration's national security agenda."²⁸ In addition, General Colin L. Powell, U.S. Secretary of State, made clear his views when he called a defensive shield "an essential part" of the nation's security.²⁹ Thus, there is at least the remote possibility of U.S. support for the ISF, given both the missile shield objectives of the Bush [*541] administration and the resistance thus far put forward by the international community to the U.S. initiative.