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# \*\*\*Space Cooperation

## Uniqueness – Cooperation Increasing

### The Obama Administration is taking steps to open to international cooperation in space

Foust ‘11, editor and publisher of The Space Review, 2011 (“The national space policy, one year later”, June 27, http://www.thespacereview.com/article/1873/1)

One major difference widely cited between the current administration’s space policy and the one released by the George W. Bush Administration in 2006 has been its tone. The Obama Administration’s policy has been more open to international cooperation on various issues, although it retains language from previous policies that puts strict guidance on when the US should sign onto space arms control measures. Previous US views on space issues, including space arms control, “was not received well by the international community,” said Ben Baseley-Walker, advisor on security policy and international law for the Secure World Foundation. “It was seen as inconsistent, it was seen as antagonistic, and it was seen as isolationist.” That view can’t be immediately changed, he said, but the new space policy takes steps in that direction. “What the national space policy has done is to start to rebuild trust, start to rebuild consistency, and start to rebuild the reliability of the US as an internationally-engaged partner.” Just how willing the US is to be a better international partner will depend on not just the words in the policy, but other forces, notably funding, that force the US to engage more with other nations. “The US has not been put into a situation financially, or on specific limitations on the goals it wants to achieve, to have to deal with international partners,” he said. That could change down the road, he noted, such as when—at some time after 2020—the International Space Station is retired, at which time it’s possible the only space station in orbit is Chinese.

### The U.S. wants to increase cooperation between other nations

Crook ‘10, Professorial Lecturer in Law, 2010 (John R., “New U.S. National Space Policy Emphasizes Cooperation, Signals U.S. Willingness To Consider Verifiable Space Arms Control Measures”; Jstor: The American Journal Of International Law, Vol. 104, No. 4 (October), Pp. 666-668, )

In July 2010, President Obama approved a new U.S. national space policy emphasizing enhanced cooperation with other countries in space activities.1 The policy document indicates that the United States intends to keep the International Space Station in operation until at least 2020, rather than 2015 as previously seemed possible. The policy expresses U.S. willingness to consider proposals for arms control measures in space if they are equitable and verifiable and if they enhance U.S. national security. Emphasizing the difficulties of verification, the United States has, in the past, opposed proposals by China and Russia to pursue arms control regimes in space.2 The policy was announced against a background of greatly increased activity in space by many countries. That activity has led to problems requiring enhanced cooperation, such as a growing threat to satellites and spacecraft from the mounting volume of orbiting space debris.

## Cooperation Key – Terrorism

### Space cooperation is needed to defeat terrorism

Moore ‘6, Johns Hopkins University, 2006; (“A Debate About Weapons in Space: Against A New Cold War?”, Mike; SAIS Review - Volume 26, Number 1, Winter-Spring 2006, pp. 175-188)

The most credible threat America is likely to face in the first half of this century is not a state-sponsored attack on its space assets, but rather intermittent terrorism generated by states or sub-state actors. Fighting terrorism requires imagination, well-coordinated governmental agencies, extraordinarily good intelligence resources, unflagging military tenacity, a willingness by the American people to accept a degree of discomfort, incon- venience, and uncertainty, and a high degree of cooperation among national leaders everywhere, including China. Fighting terrorism also requires having sophisticated national-security assets in space, including surveillance, communications, and geo-position- ing satellites.16 But it does not require that the United States develop and deploy a space-control capability or place weapons in space—unless one believes that the bin Ladens of the world have advanced anti-satellite pro- grams hidden in their caves and spider holes.

## China – No Space Cooperation

### China and the U.S. will not bilaterally work on space efforts

Robertson ‘11, Epoch Times Staff Writer, 2011 (Matthew, The Epoch Times, “Wolf’s Clause Imperils (Some of) Administration’s China Plans”,

June 14, http://www.theepochtimes.com/n2/content/view/57689/99999999/1/1/)

Two Chinese journalists were supposed to watch the U.S. space shuttle Endeavour take off from the Kennedy Space Center in Florida in mid-May. The shuttle was using the Alpha Magnetic Spectrometer-2 particle detector, a component developed by Chinese scientist Samuel Ting, and their story would have made useful provender for China’s state media apparatus. But they were turned away at the gates. Their employer, Xinhua, the official mouthpiece of the Chinese Communist Party (CCP), went into high dudgeon. A scornful editorial made no bones about the man and the law responsible: “‘Wolf Clause’ betrays China-U.S. cooperation,” the headline read. It was the doing of Rep. Frank Wolf, a long-term critic of the CCP, after he became chairman of the House Commerce, Justice, and Science Appropriations Subcommittee in January. The language he inserted into the spending bill for those agencies in April prevents NASA and the White House's Office of Science and Technology Policy (OSTP) from using federal funds… Wolf made his position clear in his testimony to the U.S.-China Commission in May: “The U.S. has no business cooperating with the PLA to help develop its space program.” Cooperation with China on human space flight, would, according to Richard Fisher, an analyst and author on the Chinese military, “In essence … constitute a free transfer of technology.” The People’s Liberation Army (PLA) leads China’s space efforts, and there is no real difference between China’s military and civil space programs, experts say. Wolf thus asserts, “There is no reason to believe that the PLA’s space program will be any more benign than the PLA’s recent military posture.” His clause to combat this cooperative venture and others like it was passed as part of the budget negotiations, and is valid until Sept. 30. The item will have to stand on its own merits in new legislation to be introduced into the House. Though the area of acute concern was human space flight cooperation, Wolf made the language cover OSTP as well “to send a signal to the White House and NASA” that “this is unacceptable,” according to Wolf’s staffer. “To engage China increasingly in bilateral areas is not appropriate until we see some changes in China,” the staffer added…“The brief against China misusing U.S. technology is not a null set: You give them a computer it turns into something they put in their weapons program,” Sokolski said. “Congress exercising its power of the purse over technology transfers to countries they see as despicable is legitimate. We used to have such a policy to Soviet Union; I don’t think it’s unprecedented.

### U.S.-China cooperation in space will not happen

Johnson-Freese ‘11, Professor of National Security Affairs at the U.S. Naval War College, 2011 (Joan, “US-China Space Cooperation: Congress’ Pointless Lockdown”, June 10, http://www.chinausfocus.com/peace-security/us-china-space-cooperation-congress%E2%80%99-pointless-lockdown/)

In early May when the US government was scrambling to pass a budget, a provision was slipped into the NASA appropriations bill that while counter to Obama Administration policy of expanded space cooperation, was not as important as getting a continuing resolution passed and so allowed to slide through. Section 1340 of NASA’s budget prohibited NASA and the White House Office of Science and Technology Policy (OSTP) from spending funds to “develop, design, plan, promulgate, implement, or execute a bilateral policy, program, order, or contract of any kind to participate, collaborate, or coordinate bilaterally in any way with China or any Chinese-owned company.” It also prohibited the hosting of “official Chinese visitors” at any NASA facility. Clearly, a comprehensive ban on US-China space cooperation was intended. Just as clearly, ban supporters are under the impression that Chinese space officials are anxiously banging on the proverbial US door, waiting and hoping for the opportunity to work with the United States – which just isn’t the case. China has energetically and broadly moved out on their own in space, and based on watching on-going US political kabuki dances about its future space plans, and seeing how difficult and tenuous it can be for other countries to partner with the US – on the International Space Station (ISS), for example – most Chinese space officials consider working with the United States as a potential liability to their own already-underway plans. In fact, many countries consider that they can afford only so much US friendship, though Congress continues to act as though the US is the only game in town if countries want to develop a robust space program.

## China – Coop Solves War

### China and US Relations are poor, but it is necessary to cooperate to prevent a nuclear-armed China

Zhao ‘11, PhD Candidate at the Sam Nunn School of International Affairs, Georgia Institute of Technology, 2011 (Tong, “How to Engage China”, June 24, http://the-diplomat.com/new-leaders-forum/2011/06/24/how-to-engage-china/)

Such worst-case thinking and planning is derived from distrust between China and other nuclear weapons states, the United States in particular. Mutual distrust has created numerous problems in US-China relations, particularly in the military and nuclear arena. Observing track-two exchanges in the US-China Strategic Dialogue, it has been clear that the two countries have fundamentally different ways of addressing the issue of distrust. The United States adopts a bottom-up approach of trust-building, and holds the view that trust-building starts with cooperation on small and specific issues. According to this view, cooperating on specific policy issues is the most direct and effective way to promote mutual understanding and confidence-building. The thinking is that successful cooperation on specific policy issues will pave the way for cooperation on strategic issues and grand policy. The Chinese, on the other hand, are more used to a top-down approach under which both countries should first recognize each other as friends and partners on the strategic level and establish a good political relationship. Under this approach, only after the two sides have come to agreement on strategic issues can they cooperate effectively on specific policies. As a result, China pays close attention to the US commitment to the Sino-US strategic relationship and expends a great deal of energy analysing US behaviour for any changes. This means that it’s difficult to reassure China over US strategic intentions, and any perceived US ambiguity is seen by China a reason to shun cooperation on specific policies, including nuclear arms control. All this means that any disruption in US-China political ties could derail communication and engagement on nuclear security policy. Disagreement between Washington and China on issues related to South China Sea, Sino-Japan relationship, arms sales to Taiwan, and the Korean Peninsula, for example, can all easily undermine the prospects of engaging Beijing on nuclear arms talks. Clearly, if both nations stick doggedly to their own approach toward trust-building, then it won’t be possible to find solutions on key issues. Changing the way a nation thinks about strategic issues obviously takes time. In the meantime, though, there are a number of steps that the two countries can take to start improving trust.

## China – Cooperation Bad

### U.S.-China space cooperation bad—technology transfer and decrease relations

Pollpeter 8, China Program Manager at Defense Group Inc.’s Center for Intelligence Research and Analysis, 2008 (“Building for the future : China's progress in space technology during the tenth 5-year plan and the U.S. response”, Kevin, March)

A policy that treats China as a friend, however, has its own shortcomings. Because China’s strategy is designed to further its own national interests and because its interests are often not aligned with U.S. interests, it is unlikely that assisting China in increasing its space power will eliminate these differences and may, in fact, exacerbate them. Moreover, cooperation in space is of limited value in advancing U.S.-China ties considering the secondary role of space diplomacy, and cooperation in space will not help resolve differences over Taiwan, human rights, or Chinese economic practices. The most important argument against cooperation is the possibility of the transfer of sensitive technology. Most space technology is dual-use in nature and could assist the Chinese in developing advanced weaponry that could be used against U.S. forces. Nearly any transfer of space technology directly improves China’s military capabilities not just because space technology is inherently dual-use, but also because China’s space program is inherently military in nature. While cooperation does exist between NASA and the U.S. military, the Chinese space program lacks the bureaucratic walls which make NASA a predominantly civilian organization in both focus and culture. Indeed, China’s space program is a military-civilian joint venture in which the military develops and operates its satellites and runs its infrastructure, including China’s launch sites and satellite operations center. The China National Space Administration, often incorrectly referred to as China’s NASA, mainly functions as a civilian front for international cooperation and as a liaison between the military and the defense industry. In fact, CNSA does not even manage important space cooperative activities like cooperation with Europe on Galileo, which is run by the Ministry of Science and Technology.

## Russia – No Cooperation

**Russia and US Won’t Cooperate**

Andrei Kislyakov Jan 16, 2007 “Bleak Outlook For Russian-US Space Cooperation”RIA Novosti political commentator
Moscow, Russia (RIA Novosti)

The directors of the various national space agencies involved in the International [Space Station](http://www.spacedaily.com/reports/Bleak_Outlook_For_Russian_US_Space_Cooperation_999.html) (ISS) program will meet to negotiate in France on April 23. On December 26, Russian Federal Space Agency director Anatoly Perminov said Moscow does not as of yet plan to take part in the U.S. lunar program. These events do not seem to have much in common: the first one is quite positive, whereas the second seems a bit negative. Unfortunately, grammar is not the main aspect here. In both cases, one can say that current Russian-U.S. cooperation does not inspire the same joyful optimism typical of the late 1990s. Moreover, both space powers may soon go their separate ways if this trend persists, with mutual rivalry inevitably setting in.

# \*\*\*Space Leadership

## Space Leadership

### The U.S. is the only nation with space leadership intentions

Moore ‘6, Johns Hopkins University, 2006; (“A Debate About Weapons in Space: Against A New Cold War?”, Mike; SAIS Review - Volume 26, Number 1, Winter-Spring 2006, pp. 175-188)

So much for hypothetical scenarios. The United States is the only nation that speaks of achieving dominance of space. The common refrain is that U.S. superiority in space would be good for America and good for the world. If the United States definitively chooses to deploy a comprehensive space-control capability, it would so with the best of intentions. The United States would never deny access to space to another country except in ex-A New Cold War? Extreme circumstances. America would not dream of using its space-control capability to shatter the satellites of other nations or to demolish buildings with devices launched from orbit unless a war were in progress—or immi- nent. Achieving a comprehensive space-control capability is purely a matter of “anticipatory self-defense,” in Pentagon jargon.

### The United States’ leadership makes it the only nation capable of continuing into space

Moore ‘6, Johns Hopkins University, 2006; (“A Debate About Weapons in Space: Against A New Cold War?”, Mike; SAIS Review - Volume 26, Number 1, Winter-Spring 2006, pp. 175-188)

To U.S. space warriors, a demonstrated capability to control space seems sensible and necessary. But to other nations, such a capability more likely would suggest a velvet-glove hegemony that could someday turn to steel-fisted imperialism. What nation could afford to rely on the everlasting good intentions of another nation, even one as relatively benign as the United States? (If you question the “relatively benign” phrase, ask yourself: Do you really wish the Soviet Union had “won” the Cold War?) Further, what other nation could reliably bet that the United States would simply fail in its efforts to develop a robust space-control and space- weapons capability because of overwhelming technical difficulties and horrendous costs? Americans, after all, are in the habit of making the impossible look easy when it comes to the technology of war.

## Militarization causes war

### U.S. want for space superiority leads to U.S.-China clash

Zhang ‘11, undergraduate education in China and his Ph.D. in political science from the University of Texas in Austin, 2011 (“The Security Dilemma in the U.S.-China Military Space Relationship”, Baohui, Asian Survey, March/April)

This perception of the American lead in space militarization and attempts for its weaponization is a major motive for the Chinese military to develop similar projects and thus avoid U.S. domination in future wars. The PLA believes that control of the commanding heights will decide the outcome of future wars, and China cannot afford to cede that control to the U.S. As a result, space war is a key component of the PLA Air Force’s (PLAAF) new doc- trines. In 2006 the PLAAF released a comprehensive study called Military Doctrines for Air Force, which makes the following statement: In future wars, merely possessing air superiority will no longer be sufficient for seizing the initiative of battles. In significant ways, only obtaining space superiority could ensure controlling the initiative of war. The contest in outer space has become the contest for the new commanding heights. Seizing control of space will mean control of the global commanding heights, which will in turn enable dominance in air, land, and sea battles. Thus, it is impossible to achieve national security without obtaining space security.

### International Community Would Backlash Against U.S. Deployment of Space Weapons, leads to conflict

### Backlash against U.S. deployment of Space weapons undermines U.S. conventional strength

Katz-Hyman, Michael and Michael Krepon. Assurance or Space Dominance? The Case Against Weaponizing Space. Washington, D.C.: Henry L. Stimson Center, April 2003. [ page 89 ]

Given the extraordinary and growing differential in power that the United States enjoys in ground warfare, sea power, and air power, it is hard to propound compelling arguments for seeking to supplement these advantages by weaponizing space. The current U.S. lead in the military utilization of space has never been greater and is unchallenged. If the United States pushes to extend its pronounced military dominance into space, others will view this through the prism of the Bush administration's national security strategy, which places emphasis on preventive war and preemption. Foreign leaders will not passively accept U.S. initiatives to implement a doctrine of space dominance. They will have ample, inexpensive means to take blocking action, as it is considerably easier to negate U.S. dominance in space than on the ground, at sea, and in the air. The introduction of space weaponry and ASAT testing are therefore likely introduce grave complications for the terrestrial military advantages that the United States has worked so hard, and at such expense, to secure.

## Leadership Causes War (1/2)

### U.S. quest for Space hegemony stresses relations with China and Russia, leads to global prolif.

Katz-Hyman, Michael and Michael Krepon. Assurance or Space Dominance? The Case Against Weaponizing Space. Washington, D.C.: Henry L. Stimson Center, April 2003. [ page 62 ]

The likely consequences of a dynamic, but uneven, space warfare competition are not hard to envision. Potential adversaries are likely to perceive American initiatives to weaponize space as adjuncts to a U.S. military doctrine of preemption and preventive war. Depending on the scope and nature of U.S. space warfare preparations, they could also add to Chinese and Russian concerns over the viability of their nuclear deterrents. U.S. initiatives to extend military dominance into space are therefore likely to raise tensions and impact negatively on U.S.-China and U.S.-Russia relations at a time when bilateral relations have some promising, but tenuous, elements. Cooperative relations with both countries will be needed to successfully combat proliferation, but Moscow and Beijing are unlikely to tender such cooperation if they perceive that U.S. strategic objectives include the negation of their deterrents. Under these circumstances, proliferation of weapons in space would be accompanied by terrestrial proliferation.

### U.S. Space hegemony would complicate international diplomacy, kills US soft power.

Deblois, Bruce M. "The Advent of Space Weapons." Astropolitics. Vol. 1, No. 1 (Summer 2003).

Beyond adversarial responses, allies and partners abroad might also react unfavorably. Any unilateral decision to weaponize space might have negative consequences for diplomatic relationships worldwide. The European Union has been a consistent and vocal critic and, as validated by multiple resolutions in the UN regarding the prevention of an arms race in outer space (PAROS), reflects the opinions of the larger international community. In response to proposed US tests of its mid- infrared advanced chemical laser (MIRACL), an official from the European Space Agency commented: 'The world space community is confused as to the need for the US to develop space weaponry now, and is dismayed that the US is planning to test a high-powered laser against a satellite target'. Although it is unlikely that weapons in space would threaten or sever strong existing diplomatic ties, simple unpopularity might prompt a shift in the international center of gravity. Countries opposing or alienated by one states' space policy might gravitate to other alignments, possibly creating an international coalition to oppose the space-weaponizing country on these and other issues within international organizations such as the UN or the World Trade Organization (WTO). A decision to posture weapons in space might also diminish the ability of the space-weaponizing country to assemble international coalitions. In the case of the United States, such international political clout has been crucially important to the military, political, judicial and economic conduct of the war on terrorism. These forms of diplomatic influence might be more important than hard power in the maintenance of global stability in the twenty-first century.

Leadership Causes War (2/2)

### A unilateral US Space power undermine U.S. Soft Power

Coffelt, Christopher A. The Best Defense: Charting the Future of US Space Strategy and Policy. Maxwell AFB, AL: USAF Air University, June 2005. [ page 80 ]

Weaponizing space also decreases the United States’ ability to influence adversaries and achieve policy objectives short of military action (soft power). It undermines the legitimacy of the United States’ actions and its role as the leader of the free world. How can the United States assume the mantle of world leadership if it continues to act unilaterally at the expense of the international cooperation, peace, and interests it claims to value? Putting weapons in space is the ultimate unilateral act and affords no opportunity to form “coalitions of the willing.” The United States currently enjoys a significant superiority in air/land/sea combat power, robustly enhanced and enabled by space capabilities. In this position of advantage, it makes little strategic sense to disrupt the status quo with the deployment of destabilizing, offensive weapons in space. Putting weapons in space or pursuing an offensive space strategy upsets an advantageous status quo and overplays theUnited States’ hand, shortening the period of advantage. Moreover, if, as some believe, the world is on a path to the inevitable weaponization of space, there are clear advantages in assuming the follower role.

### Other countries oppose U.S. space weaponization to check U.S. hegemony

O'Hanlon, Michael E. "The State of Space: From Strategic Reconnaissance to Tactical Warfighting to Possible Weaponization." Testimony before the Subcommittee on Strategic Forces of the House Armed Services Committee. Ed. . Washington, D.C.: Brookings Institution, June 21, 2006. [ page 13 ]

Non-American opponents of weaponizing space make many of the same arguments. They also worry about a unilateralist America pursuing its own military advantage at the expense of other countries, most of which do not favor putting weapons in space. This dispute has much of its origins and motivation in the history of the ballistic missile defense debate, as well as the ASA T debate of the 1980s. But it has taken on a new tone in what many view as an era of American unipolarity or hegemony. In recent years, China and Russia have been consistently vocal in their opposition to the weaponization of space and their desire for a treaty banning the testing, deployment, and use of such capabilities. So have a number of U.S. allies, including Canada, which in 1998 proposed that the United Nations convene a committee on outer space in its Conference on Disarmament in Geneva. The UN General Assembly has continued to pass resolutions, for more than twenty straight years, opposing the weaponization of space. In December 2001 it called for negotiations on a treaty to prevent an arms race in outer space at the Geneva Conference. (The vote passed by 156 to 0; the United States, Micronesia, Israel, and Georgia abstained.) In 2001 China presented an incomplete draft treaty banning the weaponization of space, and in 2002 China and Russia jointly presented another draft that included bans on weapons based in space and on any use of weapons against objects in space.

## Leadership Hurts Econ

### U.S. unilateral action undermines international economic cooperation.

Latchford, Stephen. Strategies for Defeating Commercial Imagery Systems. Maxwell Air Force Base, Alabama: USAF Center for Strategy and Technology, December 2005. [ page 26 ]

The U.S. should never lose sight of the ability of the international community to collectively weaken American military options indirectly. Responding to the suggestion that the U.S. is the only world superpower, Joseph Nye writes, “On interstate economic issues, the distribution of power is already multipolar. United States cannot obtain outcomes it wants on trade, antitrust, or financial regulation issues without the agreement of European Union, Japan, and others.” Accepting his position, and the position that military power is a tool of last resort for achieving objectives, the obvious conclusion is non- military space power—that which comes from humanitarian, economic, scientific, and other nonmilitary prominence— must be maintained through leadership in the international community. While America moves ahead to use space for military operations, it must not jeopardize its broader interests abroad by trying to do so without a level of international acquiescence.

## China wont attack

### The cost of war is too high for China to attack – and US terrestrial capabilities beat out China’s ASAT capabilities. China heg is inevitable, multiple routes to power.

Hagt 08 (director of the China Program at the World Security Institute, "China's Military Space Stategy: An Exchange -- "Mirror-imaging and Worst-case Scenarios"." Survival. Vol. 50, No.1 (February-March 2008): 157-198.)

Even if one assumes that some form of challenge to US hegemony is inevitable, China has a growing kit of tools at its disposal to wield nonmilitary influence. China now has clout in financial, trade and even softpower terms, all of which could bring to bear considerable economic and political pressure on a potential adversary or strategic competitor. This is not to suggest China would forgo its military options in a conflict with the United States. But it should, at the very least, give pause to consider alternative strategic modalities by China. Tellis doesn’t mention any of these, much less figure them into China’s counterspace strategy. Tellis brings that strategy within his broader framework of China’s goals to challenge and rival the United States. China’s best shot at accomplishing these expansive strategic goals, Tellis writes, is to have a ‘riposte against [America’s] Achilles heel’, its space dominance. Tellis overstates both China’s ability and its incentives to use space in a conflict with the United States. He draws the analogy of Cold War competition between the Soviet Union and the United States: ‘neither side had an incentive to attack the other’s space systems, even though both developed modest instruments for this purpose, because the costs to each individually far outweighed the benefits’. The unstated implication is that China does have the incentive to attack America’s disproportionately vulnerable space assets. He is partly right; the United States is arguably now more vulnerable to asymmetric ASAT weapons that China could employ. But concluding that China has the incentive to act on this advantage removes the ‘battle’ of space out of the context of the larger conflict that such a battle would either be a part of, or would most probably escalate to. It wrongly isolates space from the US capabilities that could be brought to bear on a much inferior China in the dynamic of any military conflict. The United States has overwhelming military superiority over China. Besides vastly outnumbering China’s conventional and nuclear forces, other key elements include the dramatic advantage the United States has accrued in the past decade in precision-strike conventional weapons. These may even be capable of taking out even hardened nuclear silos in certain circumstances, thus comprising a new threat to China’s nuclear deterrence. 1 There is also the developing US multi-layered missile defence system with Downloaded At: 17:14 26 February 2008 China’s Military Space Strategy: An Exchange | 167 boost-phase components based in space that threaten China’s missile force. Even considering space alone, US capabilities and programmes far exceed those of China: for example micro- or nanosatellites, such as the XSS-10, XSS-11, DART, MiTex, Orbital Express and the new DARPA TICS and F6 programmes. There are also laser weapons: MIRACL, the ABL and its COIL, various solid-state HEL and FEL programmes, and the Starfire adaptive optics range, all of which have powerful ASAT capabilities. 2 All this means that even if the United States is currently vulnerable in space, China would have little incentive to attack American space assets because the risk of escalation to generalised conflict – a conflict China would have no chance of winning – is far too great, as Tellis admits. Failing to incorporate this into China’s strategic calculus leads to a narrow reading of what China is capable of, to say nothing of what its intentions may be. China’s own investment and interests in commercial and civilian space are also rapidly increasing, serving as a further check on any bellicose use of space.

## No China War

### Chinese space leadership isn’t tied to a massive US-China war, and ASAT capabilities aren’t developed enough for them to risk war.

Hagt 08 (director of the China Program at the World Security Institute, "China's Military Space Stategy: An Exchange -- "Mirror-imaging and Worst-case Scenarios"." Survival. Vol. 50, No.1 (February-March 2008): 157-198.)

The possibility of China making this calculation is far from certain, however, since to avoid escalation (possibly to nuclear exchange) or outright failure, China would need to reduce US military might to a level relative to its own (a formidable task even without space assets). Just diminishing US military dominance will not suffice if America remains powerful enough to prevail in a conflict. China may one day have the counterspace capability to achieve this goal, but one ASAT test does not get it there. For a successful kinetic-energy ASAT capability alone, China would have to conduct more tests, to say nothing of the other capabilities that would need to be developed and deployed to effectively disable US space assets. Furthermore, all this assumes that the United States is indeed highly vulnerable in space, an assumption scarcely borne out by current Chinese ASAT capabilities and inherent redundancy of US space assets. 3 This more narrowly defined scope for China’s counterspace capabilities fits within its overall strategic parameters and defined goals. And Tellis’s judgement that the potential conflict in space will ‘likely persist whether or not the Taiwan conflict is resolved’, is entirely possible if the United States and China find new strategic terms to compete over, but that outcome is speculative and is an entirely separate issue from China’s rivaling US space dominance writ large.

## No India Threat

### India is not a Space Power Threat, the brink is now, we have 6-7 years to gain a foothold in space.

India Many Years Away from Realizing its Vision for an "Aerospace Command" Times of India. February 6, 2007.

China's test of an ASAT (anti-satellite) weapon last month may have served as a rude wake-up call for India's defence establishment but the grim fact remains that it's still at least six to seven years away from establishing a fully-operational aerospace command to integrate air and space-based assets. India may have a strong civilian space programme but the use of space or space-related technologies for military purposes has been rather limited so far. The Defence Space Vision-2020, which outlines the roadmap for the armed forces in the realm of space, is just about getting ready to kick off, with intelligence, reconnaissance, surveillance and navigation as the thrust areas in its first phase (2007- 2012). Consequently, the armed forces are still some distance away from exploiting space for "real-time" military communications and reconnaissance missions, leave alone uses like missile early-warning, delivery of precision-guided munitions through satellite signals or jamming enemy networks.

## No Iran Threat

### Iran has ambitious Spacepower Goals but empirically fails on similar projects. Iran is not a threat to US Space Heg.

Shapir, Yiftah S. "Iran's Efforts to Conquer Space." Strategic Assessment (JCSS). Vol. 8, No. 3 (November 2005)

Iran is determined to attain an independent satellite capability for communications and research, and in the future, for military purposes. If the launches of the Zohreh communications satellites and the other research satellites are successful, Iran will probably seek to obtain additional capabilities, especially the independent construction and launching of its own satellites. It will also probably try to build a military image-collecting satellite for supplying photographs of military quality. Iran regards these projects beyond their functional aspects, as contributing to the nation's strength and deterrence capability and bolstering its position as the region's leader. Today, at a time when almost every state can purchase satellite products on the open market - from imagery for research to communications channels, and even military quality imagery (up to a resolution of one meter) - there is little cost effectiveness in investing enormous resources to attain an independent satellite capability. Nevertheless, a close examination of the projects that Iran has been engaged in indicates its great difficulty in attaining these capabilities. Iran has failed to reach even the basic stages in these grandiose projects after many years of effort, stages that other states attained a long time ago. The reasons for this failure are not clear but they seem to be linked to the government's inherent inability to coordinate government agencies, resolve conflicting demands, and mobilize the required resources for the projects. In other words, Iran is motivated to achieve far-reaching goals. Iran also has a significant technological infrastructure. Nevertheless, the engine is stalled and important projects are being delayed. If this assessment is correct and the Iranian failure is a deep systemic failure, this could point to questions on Iran's capability to materialize other ambitious programs, such as in the realms of ballistic missiles and nuclear weapons.

# \*\*\*Space Debris

## No Solvency

### US alone can’t solve – international focus is necessary.

Space.com Staff ‘11

<http://www.space.com/11191-space-debris-international-response.html>

The United States needs to team up with other countries and the private sector to track the huge volume of potentially dangerous space debris circling the Earth, according to a U.S. military official. More than 22,000 pieces of space junk are being tracked today as they zip around our planet, posing a collision threat to valuable satellites and other spacecraft. But there's far too much of the stuff for the U.S. government to keep track of on its own, so cooperation is required to improve the country's space situational awareness (SSA) capabilities, said Lt. Gen. Susan Helms, commander of the U.S. Strategic Command's Joint Functional Component Command for Space. "We must partner with other nations and enterprises to achieve mutually beneficial goals, and at the top of our priorities is the development of comprehensive SSA," Helms said during a recent trip to Israel. [The Worst Space Debris Events of All Time] A big problem Helms articulated the need for cooperation at the Sixth Annual Ilan Ramon International Space Conference in Tel Aviv, and again shortly after she returned to the U.S. last month. Her statements echo recommendations laid out in the U.S. National Space Policy, which was announced by President Obama last June

## Russia Solves

### Russia solves best in the status quo.

by NANCY ATKINSON on NOVEMBER 29, 2010

<http://www.universetoday.com/80643/russia-wants-to-build-sweeper-to-clean-up-space-debris/>

Trackable objects in Low Earth Orbit. Image Credit: [ESA](http://www.universetoday.com/9019/esa-cancels-eddington/)

Russia is looking to build a $2 billion orbital “pod” that would sweep up satellite [debris](http://www.universetoday.com/75745/debris-flow/) from space around [the Earth](http://www.universetoday.com/72102/above-the-earth/). According to a post on the Russian Federal Space Agency,[Roscosmos’ Facebook site,](http://www.facebook.com/#!/pages/Roscosmos/125342950826952?v=wall) (which seems to confirm an earlier article by the Interfax news agency) the cleaning satellite would work on [nuclear](http://www.universetoday.com/80895/nuclear-waste/) power and be operational for about 15[years](http://www.universetoday.com/10463/). The Russian rocket company, Energia proposes that they would complete the cleaning satellite assembly by 2020 and test the device no later than in 2023.“The corporation promises to clean up the space in 10 years by collecting about 600 defunct satellites on the same geosynchronous orbit and sinking them into the oceans subsequently,” Victor Sinyavsky from the company was quoted as saying. Sinyavsky said Energia was also in the process of designing [a space](http://www.universetoday.com/45123/china-space/) interceptor that would to destroy dangerous space objects heading towards the Earth. No word on exactly how the space debris cleaner would work, of how it would push dead satellites and other debris into a decaying orbit so that objects would burn up in the atmosphere, or if it might somehow gather up or “vacuum” debris. But at least someone is thinking about space debris and asteroid deflection and putting more than just a few rubles (60 billion of ‘em) towards these concepts.

## Can Solve Space Debris

### Space Debris problem can be solved

Sam Kean, Writer for Science magazine, June 6, 2011 (“Tungsten: Could it solve our space junk problem?”) <http://www.slate.com/id/2258112/entry/2295986/>

Obviously we need to clean up after ourselves, but most ideas to clear space of debris—zapping it with ground-based lasers, for example—seem unworkable. Now, though, a team led by Naval Research Laboratory scientist Gurudas Ganguli thinks it has a solution. Counterintuitively, [the trio of scientists proposes](http://arxiv.org/abs/1104.1401%22%20%5Ct%20%22_blank) sending *more* junk into space, but a special kind of junk—an 18-mile-thick cloud of tungsten dust. The density of space junk peaks around 620 miles up, in the middle of so-called low-Earth orbit. That's bad, because many weather, scientific, and reconnaissance satellites circle in various low-Earth orbits. But that height also offers an opportunity. Below about 560 miles, small objects start to feel a significant drag from the Earth's upper atmosphere. This drag causes them to slowly spiral toward Earth, and they eventually burn up in the atmosphere. The tungsten cloud could theoretically provide extra drag on objects orbiting above the 600-mile mark, slowing the itty-bitty debris down enough to fall below the 560-mile threshold. Tungsten wouldn't clear up space instantly—objects at 560 miles can still circle for decades. But that's vastly better than the centuries-long orbits of fast-moving objects even a little higher.

# \*\*\*Misc

## At: Private CP

### The size of the private sector is insignificant. Government action will not effect anything.

Frank Sietzen Jr. May 2003 was a member of the launch team for the Space.com Internet Space News Service and helped design its B2B programs. Sietzen is currently Editor-In-Chief of Ad Astra magazine, published by the National Space Society.

The resulting report, released late last year, showed an aerospace industry strongest in pure aviation-related employment, in some surprising geographic locations. The combined industry employed more than 2 million people in 2001, at an annual average wage of $47,700—among the highest wage baselines in the nation. More than 95% of all the jobs were aviation-related; missile-related employment accounted for just 83,000 jobs, space research 17,000, and satellite communications 18,000. Of the 2 million jobs, approximately 1.3 million were in the air transportation industry, the largest sector but also the one whose workers are among the lowest paid.

## Yes Space Travel

### Space Travel possible in near future

Chuck Rahls, physicist, phys.org Dec. 7 2005, <http://www.physorg.com/news8817.html>

But if you take in to consideration the rapid pace of technological advancement, things look brighter. The Wright brothers’ first feeble flights advanced to a man on the moon in just 50 years. In less than 100 years, we can travel 1,000 times faster. If this rule holds true for the next hundred years, we will be able to travel to the nearest stars with relative ease.

### More ev

Gary L. Bennett, metaphysis, June 29th 2006 Space Nuclear Power: Opening the Final Frontier

The development and use of nuclear power in space has enabled the human race to extend its vision into regions that would not have been possible with non-nuclear power sources. For example, in the bitterly cold, radiation-rich, poorly lit environments of the outer planets, only a rugged, solar-independent power source has the wherewithal to survive and function for long periods of time. Even closer to the Sun, environments can be too harsh or otherwise inhospitable for more conventional power sources. For years, people have speculated about, written about and made movies about traveling to Mars. Those dreams of landing a human being on the planet may become a reality sooner than we think. While many scientists say a mission to Mars is technologically possible today, there are many questions of whether it is practical, economic, or safe to undertake such a mission.

## No Space Travel

### Space Travel requires speed of Light

Dr. Michio Kaku Dec 11, 2010 <http://mkaku.org/home/?page_id=250>

When discussing the possibility of interstellar travel, there is something called “the giggle factor.” Some scientists tend to scoff at the idea of interstellar travel because of the enormous distances that separate the stars. According to Special Relativity (1905**)**, no usable information can travel faster than light locally, and hence it would take centuries to millennia for an extra-terrestrial civilization to travel between the stars. Even the familiar stars we see at night are about 50 to 100 light years from us, and our galaxy is 100,000 light years across. The nearest galaxy is 2 million light years from us. The critics say that the universe is simply too big for interstellar travel to be practical.

### Light speed impossible

Miguel Alcubierie , February 1994. The warp drive: hyper-fast travel within general relativity

When we study special relativity we learn that nothing can travel faster than the speed of light. This fact is still true in general relativity, though in this case one must be somewhat more precise: in general relativity, nothing can travel locally faster than the speed of light.

### Tag

David Audley, NASA scientist, Aug 22 <http://imagine.gsfc.nasa.gov/docs/ask_astro/answers/980512a.html>

According to Special Relativity the total energy of an object increases as its speed increases and approaches infinity as the object's speed approaches the speed of light. This means that it would take an infinite amount of energy to accelerate an object to the speed of light.

## No ASATS

### ASAT tech not capable yet

**David** Wright and **Laura** Grego**, Co-Director and Senior Scientist in the Global Security Program at the UCS, Postdoctoral Science Fellow at UCS,** 2002**, (“Anti-Satellite (ASAT) Capabilities of US Missile Defense Systems”, December 9)**

<http://www.ucsusa.org/nuclear_weapons_and_global_security/space_weapons/technical_issues/anti-satellite-asat.html>

The final case we consider is the ASAT capabilities of space-based systems being developed for ballistic missile defense. Unlike the systems discussed above, these systems are not intended for near-term deployment. Moreover, the US Missile Defense Agency (MDA) has reportedly decided not to emphasize space-based systems, although some funding for continued development is likely to continue. Two systems are currently being funded: the Space-Based Laser and kinetic energy "hit-to-kill" systems, which are the follow-ons to the "Brilliant Pebble" system of the early 1990s. The Space-Based Laser would presumably have significant capability against satellites if it could be made to work against ballistic missiles. However, the technology is far from ready, and funding for the program is low enough that it is likely to stay that way for many years. As a result, we do not consider this system in any detail.