# 1NC vs Marlborough HL

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### 1NC - OFF

Unilat CP

#### The United States federal government should:

#### --Substantially increase active debris removal

#### --Should declare debris in space to be abandoned property, with the right to salvage, and make our expired satellites available for salvage

#### -- Contributing to debris removal projects and establishing a space situational awareness catalogue that requires satellite declassification and notice in the case of impending collision with the governments of formal allies of the United States

#### --ensure standardization and integration of all shared space situational awareness data.

#### Unilat solves comparatively much better than international cooperation --- maintains leadership

--coop takes too long – proposed debris review in 1980 thru COPOUS and nothing happened

--timeframe is key – need to start now which flips solvency

--sufficiency - could remove 5 pieces now and make enviro more stable

--causes follow on – once we have the tech, others realize it’s feasible and do it too

--leadership is a nb – we are seen as taking moral highground to clean up

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US Leadership by Example

Need to Initiate Unilateral Action

International cooperation in space has rarely resulted in cost-effective or expedient solutions, especially in politically-charged areas of uncertain technological feasibility. The International Space Station, because of both political and technical setbacks, has taken over two decades to deploy and cost many billions of dollars—far more time and money than was originally intended. Space debris mitigation has also encountered aversion in international forums. The topic was brought up in COPUOS as early as 1980, yet a policy failed to develop despite a steady flow of documents on the increasing danger of space debris (Perek 1991). In fact, COPUOS did not adopt debris mitigation guidelines until 2007 and, even then, they were legally non-binding.

Space debris removal systems could take decades to develop and deploy through international partnerships due to the many interdisciplinary challenges they face. Given the need to start actively removing space debris sooner rather than later to ensure the continued benefits of satel- lite services, international cooperation may not be the most appropriate mechanism for instigating the first space debris removal system. Instead, one country should take a leadership role by establishing a national space debris removal program. This would accelerate technology development and demonstration, which would, in turn, build-up trust and hasten international participation in space debris removal.

POSSIBILITIES OF LEADERSHIP

As previously discussed, a recent NASA study found that annually removing as little as five massive pieces of debris in critical orbits could significantly stabilize the long-term space debris environment (Liou and Johnson 2007). This suggests that it is feasible for one nation to unilaterally develop and deploy an effective debris removal system. As the United States is responsible for creating much of the debris in Earth’s orbit, it is a candidate for taking a leadership role in removing it, along with other heavy polluters of the space environment such as China and Russia.

There are several reasons why the United States should take this leadership role, rather than China or Russia. First and foremost, the United States would be hardest hit by the loss of satellites services. It owns about half of the roughly 800 operating satellites in orbit and its military is significantly more dependent upon them than any other entity (Moore 2008). For example, GPS precision-guided munitions are a key component of the “new American way of war” (Dolman 2006, 163-165), which allows the United States to remain a globally dominant military power while also waging war in accordance with its political and ethical values by enabling faster, less costly war fighting with minimal collateral damage (Sheldon 2005). The U.S. Department of Defense recognized the need to protect U.S. satellite systems over ten years ago when it stated in its 1999 Space Policy that, “the ability to access and utilize space is a vital national interest because many of the activities conducted in the medium are critical to U.S. national security and economic well-being” (U.S. Department of Defense 1999, 6). Clearly, the United States has a vested interest in keeping the near-Earth space environment free from threats like space debris and thus assuring U.S. access to space

Moreover, current U.S. National Space Policy asserts that the United States will take a “leadership role” in space debris minimization. This could include the development, deployment, and demonstration of an effective space debris removal system to remove U.S. debris as well as that of other nations, upon their request. There could also be international political and economic advantages associated with being the first country to develop this revolutionary technology. However, there is always the danger of other nations simply benefiting from U.S. investment of its resources in this area. Thus, mechanisms should also be created to avoid a classic “free rider” situation. For example, techniques could be employed to ensure other countries either join in the effort later on or pay appropriate fees to the United States for removal services.

Recommendations for Leadership in Space Debris Removal

Going forward, the U.S. government should engage the commercial sector in space debris removal. Government contracts with several commercial firms would create a competitive environment, encouraging innovation and cost minimization. Having several companies working on the problem at the same time would also accelerate remediation as several critical orbits could be addressed at once. Furthermore, early investments in a domestic space debris removal industry would give the United States a head start in what may become a critical industry over the coming decades.

#### Causes international follow on --- Russia and China will go along separately later

--Russia and China will go along – otherwise they’d be pariahs and feel left out

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“The US government should support the development of best practices by following the lead of US commercial corporations, which have great sway internationally. For example, in human spaceflight, it is likely that US companies will lead the way in sub-orbital and orbital flights at least over the next decade. Coordination is already taking place among these companies in this regard. Similarly, asteroid mining companies are already coordinating informally on norms. The US Government could endorse these processes and begin to support these norms through its policy statements (such as the National Space Policy), enlisting other governments and their corporations to support them as well. Over time, if the bulk of Western governments and their corporations adopt such standards, China, Russia, and other possible outliers will likely find it beneficial to eventually join them. This may be easier than a straight political process.”

#### US commercial space leadership is necessary and sufficient to solve global Chinese dominance

--CP promulgates a set of standards initiated by the US – makes us first mover and shores up commercial space leadership

--China will dominate space and use it to create a new era of heg – need to have leadership and strong commercial sector

--will get to space and control info flows – selling satellites for cheap to poorest and broadcasting lies about US + shielding events in Tibet – undermines US cred and soft power

--will also get huge money from space and do sbsp – means they’ll have free energy to hold over the rest of the world

--Commercial sector key – need creative disruption, not bureaucracy and groupthink of the DOD to get to space quicker and more innovatively

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America Is Losing the Second Space Race to China The private sector can give the United States a much-needed rocket boost. The current U.S. space defense strategy is inadequate and on a path to failure. President Donald Trump’s vision for a Space Force is big enough. As he said on June 18, “It is not enough to merely have an American presence in space. We must have American dominance in space.” But the Air Force is not matching this vision. Instead, the leadership is currently focused on incremental improvements to existing equipment and organizational structures. Dominating the vast and dynamic environment of space will require revolutionary capabilities and resources far deeper than traditional Department of Defense thinking can fund, manage, or even conceive of. Success depends on a much more active partnership with the commercial space industry— and its disruptive capabilities.

U.S. military space planners are preparing to repeat a conflict they imagined back in the 1980s, which never actually occurred, against a vanished Soviet empire. Meanwhile, China is executing a winning strategy in the world of today. It is burning hard toward domination of the future space markets that will define the next century. They are planning infrastructure in space that will control 21st-century telecommunications, energy, transportation, and manufacturing. In doing so, they will acquire trillion-dollar revenues as well as the deep capabilities that come from continuous operational experience in space. This will deliver space dominance and global hegemony to China’s authoritarian rulers.

Despite the fact that many in the policy and intelligence communities understand exactly what China is doing and have been trying to alert leadership, Air Force leadership has convinced the White House to fund only a slightly better satellite command with the same leadership, while sticking a new label onto their outmoded thinking. A U.S. Space Force or Corps with a satellite command will never fulfill Trump’s call to dominate space. Air Force leadership is demonstrating the same hubris that Gen. George Custer used in convincing Congress, over President Ulysses S. Grant’s better experience intuition, that he could overtake the Black Hills with repeating rifles and artillery. That strategy of technological overconfidence inflamed conflict rather than subduing it, and the 7th Cavalry were wiped out at the Battle of the Little Bighorn.

The West was actually won by the settlers, ranchers, miners, and railroad barons who were able to convert the wealth of the territory itself into the means of holding it. They laid the groundwork that made the 20th century the American Century and delivered freedom to millions of people in Europe and Asia. Of course, they also trampled the indigenous people of the American West in their wake—but empty space comes with no such bloody cost. The very emptiness and wealth of this new, if not quite final, frontier, however, means that competition for resources and strategic locations in cislunar space (between the Earth and moon) will be intense over the next two decades. The outcome of this competition will determine the fate of humanity in the next century.

China’s impending dominance will neutralize U.S. geopolitical power by allowing Beijing to control global information flows from the high ground of space. Imagine a school in Bolivia or a farmer in Kenya choosing between paying for a U.S. satellite internet or image provider or receiving those services for free as a “gift of the Chinese people.” It will be of little concern to global consumers that the news they receive is slanted or that searches for “free speech” link to articles about corruption in Western democracies. Nor will they care if concentration camps in Tibet and the Uighur areas of western China are obscured, or if U.S. military action is presented as tyranny and Chinese expansion is described as peacekeeping or liberation.

China’s aggressive investment in space solar power will allow it to provide cheap, clean power to the world, displacing U.S. energy firms while placing a second yoke around the developing world. Significantly, such orbital power stations have dual use potential and, if properly designed, could serve as powerful offensive weapons platforms.

China’s first step in this process is to conquer the growing small space launch market. Beijing is providing nominally commercial firms with government-manufactured, mobile intercontinental ballistic missiles they can use to dump launch services on the market below cost. These start-ups are already undercutting U.S. pricing by 80 percent. Based on its previous success in using dumping to take out U.S. developed industries such as solar power modules and drones, China will quickly move upstream to attack the leading U.S. launch providers and secure a global commercial monopoly. Owning the launch market will give them an unsurmountable advantage against U.S. competitors in satellite internet, imaging, and power.

The United States can still build a strategy to win. At this moment, it holds the competitive advantage in every critical space technology and has the finest set of commercial space firms in the world. It has pockets of innovative military thinkers within groups like the Defense Innovation Unit, under Mike Griffin, the Pentagon’s top research and development official. If the United States simply protects the intellectual property its creative minds unleash and defend its truly free markets from strategic mercantilist attack, it will not lose this new space race. The United States has done this before. It beat Germany to the nuclear bomb, it beat the Soviet Union to the nuclear triad, and it won the first space race.

None of those victories was achieved by embracing the existing bureaucracy. Each of them depended on the president of the day following the only proven path to victory in a technological domain: establish a small team with a positively disruptive mindset and empower that team to investigate a wide range of new concepts, work with emerging technologies, and test innovative strategies. Today that means giving a dedicated Space Force the freedom to easily partner with commercial firms and leverage the private capital in building sustainable infrastructure that actually reduces the likelihood of conflict while securing a better economic future for the nation and the world.

#### Primacy and allied commitments solves arms races and great power war---reject old defense that ignores emerging instability and compounding risk. Unipolarity is sustainable and stops power vacuums and escalation across the globe

Brands 18 [Hal, Henry Kissinger Distinguished Professor at Johns Hopkins University's School of Advanced International Studies and a senior fellow at the Center for Strategic and Budgetary Assessments." American Grand Strategy in the Age of Trump." Page 129-133]

Since World War II, the United States has had a military second to none. Since the Cold War, America has committed to having overwhelming military primacy. The idea, as George W. Bush declared in 2002, that America must possess “strengths beyond challenge” has featured in every major U.S. strategy document for a quarter century; it has also been reflected in concrete terms.6

From the early 1990s, for example, the United States consistently accounted for around 35 to 45 percent of world defense spending and maintained peerless global power-projection capabilities.7 Perhaps more important, U.S. primacy was also unrivaled in key overseas strategic regions—Europe, East Asia, the Middle East. From thrashing Saddam Hussein’s million-man Iraqi military during Operation Desert Storm, to deploying—with impunity—two carrier strike groups off Taiwan during the China-Taiwan crisis of 1995– 96, Washington has been able to project military power superior to anything a regional rival could employ even on its own geopolitical doorstep.

This military dominance has constituted the hard-power backbone of an ambitious global strategy. After the Cold War, U.S. policymakers committed to averting a return to the unstable multipolarity of earlier eras, and to perpetuating the more favorable unipolar order. They committed to building on the successes of the postwar era by further advancing liberal political values and an open international economy, and to suppressing international scourges such as rogue states, nuclear proliferation, and catastrophic terrorism. And because they recognized that military force remained the ultima ratio regum, they understood the centrality of military preponderance.

Washington would need the military power necessary to underwrite worldwide alliance commitments. It would have to preserve substantial overmatch versus any potential great-power rival. It must be able to answer the sharpest challenges to the international system, such as Saddam’s invasion of Kuwait in 1990 or jihadist extremism after 9/11. Finally, because prevailing global norms generally reflect hard-power realities, America would need the superiority to assure that its own values remained ascendant. It was impolitic to say that U.S. strategy and the international order required “strengths beyond challenge,” but it was not at all inaccurate.

American primacy, moreover, was eminently affordable. At the height of the Cold War, the United States spent over 12 percent of GDP on defense. Since the mid-1990s, the number has usually been between 3 and 4 percent.8 In a historically favorable international environment, Washington could enjoy primacy—and its geopolitical fruits—on the cheap.

Yet U.S. strategy also heeded, at least until recently, the fact that there was a limit to how cheaply that primacy could be had. The American military did shrink significantly during the 1990s, but U.S. officials understood that if Washington cut back too far, its primacy would erode to a point where it ceased to deliver its geopolitical benefits. Alliances would lose credibility; the stability of key regions would be eroded; rivals would be emboldened; international crises would go unaddressed. American primacy was thus like a reasonably priced insurance policy. It required nontrivial expenditures, but protected against far costlier outcomes.9 Washington paid its insurance premiums for two decades after the Cold War. But more recently American primacy and strategic solvency have been imperiled.

THE DARKENING HORIZON For most of the post–Cold War era, the international system was— by historical standards—remarkably benign. Dangers existed, and as the terrorist attacks of September 11, 2001, demonstrated, they could manifest with horrific effect. But for two decades after the Soviet collapse, the world was characterized by remarkably low levels of great-power competition, high levels of security in key theaters such as Europe and East Asia, and the comparative weakness of those “rogue” actors—Iran, Iraq, North Korea, al-Qaeda—who most aggressively challenged American power. During the 1990s, some observers even spoke of a “strategic pause,” the idea being that the end of the Cold War had afforded the United States a respite from normal levels of geopolitical danger and competition. Now, however, the strategic horizon is darkening, due to four factors.

First, great-power military competition is back. The world’s two leading authoritarian powers—China and Russia—are seeking regional hegemony, contesting global norms such as nonaggression and freedom of navigation, and developing the military punch to underwrite these ambitions. Notwithstanding severe economic and demographic problems, Russia has conducted a major military modernization emphasizing nuclear weapons, high-end conventional capabilities, and rapid-deployment and special operations forces— and utilized many of these capabilities in conflicts in Ukraine and Syria.10 China, meanwhile, has carried out a buildup of historic proportions, with constant-dollar defense outlays rising from US$26 billion in 1995 to US$226 billion in 2016.11 Ominously, these expenditures have funded development of power-projection and antiaccess/area denial (A2/AD) tools necessary to threaten China’s neighbors and complicate U.S. intervention on their behalf. Washington has grown accustomed to having a generational military lead; Russian and Chinese modernization efforts are now creating a far more competitive environment.

#### Data-sharing with allies solves the aff

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Douglas L., 3/12. “STATEMENT OF MR. DOUGLAS L. LOVERRO DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR SPACE POLICY BEFORE THE SENATE COMMITTEE ON ARMED SERVICES SUBCOMMITTEE ON STRATEGIC FORCES.” https://www.armed-services.senate.gov/download/loverro\_03-12-14

Our efforts here go beyond mere words – they are backed by actions. As I have discussed before, a key aspect of improving spaceflight safety, and assuring we can monitor the space environment more closely, is our space situational awareness (SSA) capabilities. We have been working on this for some time, and I am happy to report that we have made some real progress over the last year. That progress comes in two forms – new sensors and information sharing agreements.

On the sensor front, we have remained on a constant path for the last several years to reposition sensors where they can do the most good and to invest in new sensors where needed. Last year we reported that we had entered into an agreement with Australia to relocate and repurpose a launch tracking radar, the C-Band radar, from Antigua to western Australia to aid in our ability to monitor activities at low altitude in the southern hemisphere. That work is now underway. We complemented that effort with a second agreement signed with Australia this past November to relocate the DARPA-developed Space Surveillance Telescope to western Australia to give us an unmatched ability to track deep space objects in that critical region of the world. Additionally, after years of focused effort, and a sequestration-imposed six-month delay, we will soon award the contract for the first Space Fence site. The Space Fence will provide an unprecedented ability to track an order-of-magnitude greater number of objects in low earth orbit, supporting long-term spaceflight safety.

The Department has also made great strides in more transparently sharing SSA information with other space operators. Over the past year, U.S. Strategic Command (USSTRATCOM) has continued to pursue SSA sharing agreements with commercial companies and foreign governments, consistent with existing legislative authority. This year, USSTRATCOM signed five agreements with other governments – Australia, Japan, Italy, Canada, and France – and increased to forty-one our agreements with commercial satellite operators. Many more agreements are in varying stages of negotiation. We are committed to providing SSA services to enhance spaceflight safety for all.

While the purpose of these agreements is to allow us to share more advanced space flight safety products with other space-faring nations, they really serve to lay the groundwork for the next stage of effort – two-way data sharing. The space environment is too big and too complex for a single nation to bear the entire cost of monitoring it. Cost-effective SSA requires cooperation among space actors. The increasingly congested space environment means that an unparalleled level of information sharing is needed to promote safe and responsible operations in space and to reduce the likelihood of mishaps, misperceptions, and mistrust. We are currently engaged in detailed technical discussions with several nations that have space situational awareness capabilities to explore opportunities for two-way information exchange. This type of sharing will increase SSA information available to the United States while limiting unnecessary duplication of SSA capabilities. In short, we save money and improve safety for us and our allies.