

An Agenda for Obama: End America's Counterproductive Pursuit of Space Dominance

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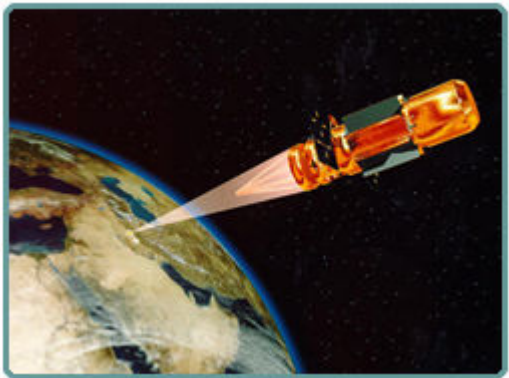


Illustration from "Vision 20/20", U.S. Space Command, 1997

The Obama-Biden administration says the United States must re-engage with the rest of the world. As a nation, we are no longer enamored of the idea that our mission is to end tyranny everywhere while bringing democracy to all. The Obama-Biden administration wants to rejoin the world, not run it.

Yet re-engagement efforts may be derailed, sooner rather than later, if the Obama team fails to come to grips with America's arrogant and counter-productive national-security space policy—a unilateralist policy that says, in effect, that the United States has the right to militarily dominate outer space.

Militarized but not Weaponized

President [Eisenhower](#) was more thoughtful and analytical than many realize. After [Sputnik](#) in October 1957, many of Eisenhower's top military officers—as well as some of the nation's most

prominent politicians and opinion-shapers—urged him to move the arms race into space. Eisenhower believed that would be provocative and dangerous; instead, he established a national policy of "space for peaceful purposes."

Space for peaceful purposes remains America's stated national policy and it eventually became the basis of the [Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space](#), including the Moon and Other Celestial Bodies (commonly known as the "Outer Space Treaty of 1967").

The core of the treaty is the notion that outer space, including the moon and other celestial bodies, should be used exclusively for peaceful purposes and cannot be appropriated by any state. A nation might plant its flag on the moon, as the United States did in July 1969, but it could not claim ownership. No military installations of any kind would be permitted; no testing of weapons; no military maneuvers. Military personnel would be welcome, but only if they were engaged in nonmilitary research or other "peaceful purposes."

Orbital space—the region between the earth and the moon—was a different matter. Nuclear or other weapons of mass destruction were barred from orbital space. However, the United States and the Soviet Union already had a variety of military-related hardware circling the earth—spy, communication, and warning satellites—and these Cold War adversaries were not about to deal those assets away. They were too useful to both sides to be banned—and they were not in themselves weapons. Thus orbital space would be "militarized" but not "weaponized."

Further, the negotiators of the Outer Space Treaty focused solely on banning nuclear weapons and other weapons of mass destruction. Other kinds of weapons were not even considered. In the mid-1960s, when the major work on the treaty was done, there was no reason to worry about precision weapons in space. Such weapons existed only in science-fiction.

The drafters of the treaty could not foresee the incredible shrinking world of microprocessors, a computing-power race that the United States has always led by many laps. As U.S. processors got smaller, they also became more powerful. In turn, that made the miniaturization of space hardware possible. Powerful but minuscule processors also opened the door for today's array of made-in-America ground, air, and sea precision weapons, most of which are dependent on an ever more sophisticated array of U.S. space satellites, especially surveillance, communication, and geo-positioning satellites.

The same trends in processor power and miniaturization also made it possible to conceive of *precision* weapons in space, such as lasers, that would be militarily useful, even though they were not weapons of mass destruction.

Although according to international law, space was to be preserved for peaceful purposes, to hardliners in the Soviet Union and in the United States, that was mere rhetoric. Conflict in space was widely assumed by war planners in both nations to be inevitable. By the end of the 1970s, military and scientific circles in the Soviet Union and the United States were abuzz with concepts regarding anti-satellite [ASAT] weapons as well as with new weapons concepts that could be stationed in space. They would be "legal," wouldn't they? The Outer Space Treaty banned only nuclear weapons and other weapons of mass destruction. It was silent about other kinds of space-related weapons.

A New Treaty?

By 1978, the global arms-control community realized that the Outer Space Treaty was insufficient to ensure the peaceful uses of space. It had too many loopholes and the Soviet Union and the United States superpowers seemed intent on exploiting them. A resolution calling for the [Prevention of an Arms Race in Outer Space](#) (PAROS) was added to the UN agenda in 1981. It has reappeared every year since then, albeit with somewhat different wording and emphases.

The resolution asks the Conference on Disarmament in Geneva to begin negotiations that would lead to an agreement (or agreements) that would prevent a space-related arms race. Virtually all nations have gone on record year after year since 1981 as favoring PAROS. The most recent UN General Assembly vote was December 2, 2008. One hundred and seventy-seven nations voted in favor of the treaty resolution. The United States offered the only "no" vote. (Israel, as has been its custom, abstained.)

It was a pro forma vote. Everyone understood that the United States would oppose the resolution; it always had, either by abstaining or by voting "no." Further, history suggested that the United States would use its clout at Conference on Disarmament sessions in 2009 to ensure that no substantive talks would take place. U.S. delegations, whether representing Republican or Democrat administrations, had always stymied serious PAROS talks; America's no-new-treaty stance had remained essentially the same since 1981. It has sought to keep every military option open, including space-related weapons.

Full Spectrum Dominance in Space

After the Soviet Union fell, U.S. defense strategists, civilian as well as military, began an intense and widespread "lessons learned" exercise. Their conclusion was that the Soviet Union had been an existential threat to the United States; the United States must never again permit such a threat to arise.

That led to the doctrine of "full spectrum" military dominance, which took shape during the Clinton years. The United States would be so militarily powerful on the ground, at sea, in the air, and in space that no other state would ever again present an existential challenge. Building and maintaining overwhelming military superiority in space was a key component of this. In 1997, U.S. Space Command, a combined Army, Navy, and Air Force umbrella organization established in 1985, issued a glossy, illustrated brochure called [Vision for 2020](#), which promoted dreams of unlimited space power. Newer Air Force and Defense Department documents have replaced *Vision*, but the overall thrust remains operative: the military "requirement" to build the capability to dominate space, when needed.

In late 2002, U.S. Space Command was folded into Strategic Command, the nation's global-strike unit. U.S. Space Command's sister organization, Air Force Space Command, took the point position in the development of space-dominance theory and doctrine. In October 2003, Air Force Space Command issued its *Strategic Master Plan FY06 and Beyond*, which pushed for space weapons, ostensibly for defense purposes.

In recent years, proposals for space-based weapons have been pushed to a back burner, given the cash drain imposed on the Defense Department by the wars in Iraq and Afghanistan. Most space warriors now recognize that space-based weapons are too technically daunting and too expensive to be feasible anytime in the foreseeable future.

Nevertheless, the goal of space dominance remains as salient as ever. The key to space dominance is a robust anti-satellite (ASAT) capability—ground-, sea-, and air-based weapons that can disable, damage, or destroy the satellites of other nations, when necessary. The United States is years, even decades, ahead of other nations in developing ASATs.

The Next Great Threat?

Over the past ten years, Russia and China in particular have expressed deep suspicion of America's drive toward space dominance, and they have repeatedly warned in diplomatic circles that they would not stand idly by as the United States builds a space-dominance capability.

Will America's pursuit of space dominance trigger a space-related arms race? The conventional hard-line answer is that one is already underway, although evidence for this is weak. It centers on China's ASAT test in January

2007. Since the fall of the Soviet Union, China has been regularly identified in military circles and in certain influential think tanks as the Next Great Threat. To hardliners, the ASAT test proves that the Chinese talk peace while preparing for possible armed conflict.

And yet, the Chinese test was of a relatively primitive "kinetic-kill" device, similar to one the United States tested in 1985 and then abandoned. China's test was more likely a shot across the bow. The United States had been dismissing Chinese efforts to get PAROS negotiations underway for years; the Chinese test may have been a warning: Get on with treaty talks or we *will* challenge you in space.

In fact, the assertion that China seeks to challenge the United States in national-security space—or in any military field—doesn't pass the smell test. China learned a lesson from the collapse of the Soviet Union: In a direct arms competition with the United States, the United States wins.

Moreover, manufacturing consumer goods for export to the West drives China's economy and provides employment for tens of millions in a nation in which systemic unemployment is at dangerously high levels. A Cold War-style confrontation would sap China's economic vitality by diverting huge amounts of capital from manufacturing to China's arms industries, thus threatening China's main business, the Wal-Marting of America.

A quid pro quo relationship exists between Washington and Beijing. Washington is generally comfortable with the idea that China will continue to supply inexpensive products to U.S. consumers; in turn, China continues to help finance the growing U.S. national debt by buying hundreds of billions of dollars of low-interest U.S. Treasury notes and bonds.

Nonetheless, old habits of thought persist. China is forever suspicious of the United States; American "hegemonism" remains a powerful concern. Similarly, the United States remains chronically wary of possible Chinese adventurism in East Asia, particularly in regard to Taiwan.

If the United States continues to push forward its de facto space dominance policy, China will almost surely continue to challenge it by developing space-related weapons. If that happens, India and Japan will likely follow suit. And if Pakistan does not disintegrate as functioning state, it will likely follow. Israel will be in the mix too. And so it goes—an all-out ASAT race triggered by the United States.

Unfit for any Use

A common argument: a space-related arms race would be unfortunate but hardly as dangerous as the arms race of European nations a century ago and certainly not as nightmarish as the nuclear arms race that shadowed the latter part of the 20th century. If a shooting conflict in space ever broke out, the targets would be satellites—machines, not people.

That argument is misguided. Orbital space is a fragile environment, a natural resource whose usefulness can be easily damaged or destroyed by human activity. A worst-case shooting conflict in space might cause untold millions of deaths, albeit indirectly.

Virtually everything launched into space, whether it is a new communications satellite or a planetary probe, is first inserted into a low-earth orbit, where its orbital parameters are fine-tuned before sending it on. Most space systems are predominantly civil in function and they contribute immensely to the well-being of all. If a space-related arms race got seriously out of control, many satellites—perhaps a dozen or more—might be shattered in low-earth orbits. The resulting debris fields in these low-earth orbits could render space unfit for further use—commercial, scientific or even military.

The global economy is greatly dependent on the continued functioning of satellites: communication, global positioning, weather, earth observation, and the like. If space becomes unfit for use because of debris, the global economic system would likely collapse. It might not happen overnight; satellites in higher orbits would continue functioning for months, even years, until they came to the end of their design lives. But if low-earth orbits are heavily salted with debris, these satellites could not be reliably replaced.

Economic collapse would not merely take humankind back to the hard times that affected much of the world during the Great Depression. During the 1930s, the world sustained roughly two billion people; today, the figure is more than six billion and heading for eight billion by mid-century. A global economic collapse combined with the needs of some six billion-plus people? One does not need to be a pessimist to understand what might follow: Massive unemployment; food shortages and starvation; pandemic disease; and armed conflict over diminishing resources.

Would a spacefaring state ever *intentionally* attack a large number of satellites of another nation? That's unlikely. Spacefaring states understand the debris problem, which would affect them all. But in a world in which two or more states have anti-satellite weapons and share some measure of enmity, is it possible that conflict in space

might be triggered by miscalculation or by mistake? A low-probability event, perhaps; but one with overwhelmingly negative consequences.

Securing the commons of space for the peaceful uses of humankind is urgent, not only for current generations but for generations unborn. Orbital space is the common heritage of humankind. It is a resource that must be used wisely and cooperatively or it may be rendered useless to all.

Arms races do not always lead to armed conflict. But moral and ethical problems remain. Multilateral cooperation at all levels is the best way to solve or at least mitigate humankind's most pressing problems. Would the nations of the world be able to put together intense, imaginative, and productive multilateral initiatives to solve or mitigate problems in a global arms-race environment? To ask the question is to answer it. The opportunity costs of a space-related arms race could be desperately high.

The world's nations favor a new treaty that would prevent a space-related arms race. It is reasonable to suggest that most states mean what they say in this regard. But what about China and Russia, the most ardent proponents of a new treaty? Is their apparent affection for a new treaty real, or a cynical crowd-pleasing ploy? It is time to call their bluff. Let's begin serious talks in Geneva. America is so far ahead of everyone else in the military uses of space that it could afford to spend a few years in serious negotiations. If it becomes apparent after two or three years that the Chinese and Russians were just posturing, we will have learned something important.

However, if treaty talks make real progress, all nations would benefit. A tough, fully verifiable space treaty banning all space-related weapons would be hellishly difficult to negotiate. But in a century in which humanity faces monumental problems that require multilateral action, the world does not need a Cold War-style arms race in which space dominance would be the goal.

A great nation, a law-abiding power that seeks to influence the world by example, can do better than to offer up the old military-dominance paradigm. It can afford to be generous, visionary, and bold. And what could be bolder and more visionary than leading the world to a treaty that would ensure that space remains free of conflict? For the United States to systematically refuse to talk seriously about such a treaty—a treaty that every nation in the world, save two, wants—strikes me as fundamentally lawless behavior.

A Safer World

The United States still has moral authority in much of the world. Hundreds of millions of people in other lands believe that the United States, despite its flaws, strives to be a fair, just, and reasonably democratic society. Millions seek to educate themselves in America, work in America, perhaps emigrate to America. The Statue of Liberty still has potent symbolic meaning, not just in the United States but in many nations.

The Obama-Biden team seems to understand that. Before it took office, its "transition" website laid out the game plan of the new administration. One of the many points under the national defense heading was this: the administration would "restore American leadership on space issues, seeking a worldwide ban on weapons that interfere with military and commercial satellites."

Such an effort would reverse the national-security space policies of Ronald Reagan; George H. W. Bush; Bill Clinton; and George W. Bush. It would also violate the conventional wisdom of most military strategists (civilian and military) who have shaped America's national-security space policy since the 1980s.

Put simply, the national-security space policy the Obama-Biden administration inherited *is not widely seen in the national-security community as "broken."* Indeed, American space dominance is presumed to be fully compatible with the post-Cold War meta-paradigm that says the surest way to avoid a new and dangerous cold war is to have the capability to exercise full spectrum dominance in any possible battle scenario, including space.

If the Obama-Biden administration wishes to junk the current de facto policy of space dominance and move toward treaty talks, it will face fierce opposition from the Defense Department, from hard-line think tanks, from editorialists, columnists, cable-news commentators, and even from some members of the arms-control community.

But if it succeeds, it will have made the world safer, and it will have realized a goal that President Eisenhower sought but never quite achieved.

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