The Return of Dr. Strangelove:
How austerity makes us stop worrying and love the bomb…and cyber war

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With sequestration looming—generating significant cuts to defense spending—the United States may find itself increasingly relying on nuclear and cyber deterrence as an affordable way to guarantee national sovereignty and prevent major conflict. While earlier defense planning and acquisitions were based on economic conditions that no longer exist, Congress' options to balance the budget by cutting defense spending are politically palatable because far fewer American are "defense voters" than "social welfare voters," according to a number of recent public opinion surveys.

The first steps in this process are already underway and exemplified by the administration's new strategy—published in January 2012.[1] When the official requirement that Department of Defense (DoD) be able to fight two wars simultaneously disappeared from the Quadrennial Defense Review in 2010, an opportunity to downsize the armed forces presented itself. From Congress' viewpoint, the budget crisis must be solved without unseating its members. Ironically, austerity may cause Americans to stop worrying about a hypothetical rogue detonation and learn to love the bomb. Dr. Strangelove may return with a vengeance, but this time with a cyber doomsday machine perched next to his original creation. After all, dollar for dollar, nuclear weapons—in particular—provide American taxpayers the greatest level of security and stability of any weapon the nation has ever fielded. The fact that at an estimated $30 billion per year—5% of the defense budget—the

nuclear arsenal is cheap, may spur Congress to take a pragmatic position toward the nation's most power military capabilities and support an effective nuclear deterrent along with the development of devastating cyber capabilites.

Some in the scientific community argue that this perspective is unrealistic. Politics, being what they are, is all about getting elected; complex strategic concepts offer little comfort during a tough reelection fight. With Congress having a number of incumbents whose constituencies loathe the thought of cuts to Medicare, Medicaid, Veterans' benefits, and Social Security, taking greater risks in national security is a more tangible option. As the nation borrows over $1 trillion per year—roughly 30% of the federal budget—the quest to balance the budget is impossible without dramatic spending cuts—given the unacceptability of tax increases.

The nation's deficit crisis may soon turn the United States' geopolitical posture from one that is—ideologically—based on global interventionism to one more akin to defense non-intervention. While international trade will continue and expand, the United States may cease to be a shining city upon a hill and the global policeman. It is somewhat paradoxical that after the country demonstrated overwhelming conventional superiority in the last two wars—Afghanistan and Iraq—the cost of that capability may lead to a renaissance of nuclear deterrence and the development of cyber deterrence as a strategic policy. In comparison to large conventional forces and their decades of veteran's benefits that follow, the nuclear arsenal is far more affordable over the long term. Cyber is also more cost effective when it comes to R & D and expensive acquisition programs. And while a sudden

retrenchment by the hegemon is destabilizing for the international political system, a commitment to the nation's nuclear umbrella can play the role it was designed to play and promote stability.[2]

With a per-unit price of about $4 billion, a new Ohio-class-replacing nuclear ballistic missile submarine (SSBN-X) can produce strategic deterrence for less than an army division of 10,000 career soldiers whose compensation—with pensions and benefits—continues for an additional 40 years after these soldiers have served. A key policy driver in coming years may prove to be the limited costs of upgrading and maintaining existing nuclear weapons when a cash-strapped federal government seeks to reduce the deficit. Maintaining and upgrading existing nuclear weapon systems are inexpensive by comparison. Even if nuclear weapons are bound—as Kenneth N. Waltz states—to make people uneasy because of their immense destructive power, nuclear arms may prove to be a budgetary emergency exit.[3]

For many Americans, Peter Sellers portrayal of nuclear deterrence policies in the 1950s and 1960s remains.[4] While *Dr. Strangelove* (1964) is an iconic film, its black comedy, addressed the dangers of nuclear weapons, doomsday devices, missile gaps, and the intricate webs of deterrence and geopolitics of a bygone era where the world was still coming to grips with the destructive power of "the bomb." In one scene, Dr. Strangelove carefully explains for the president what deterrence and the doomsday device are, "Mr. President, it is not only possible, it is essential. That is the whole idea of this machine, you know. Deterrence is the art of producing in the mind of the enemy the fear to attack."

Admittedly, this psychological aspect has not changed, but technology and operational experience have made nuclear weapons a safe and secure means of deterring conventional and nuclear attack. It is cyber deterrence is in a similar position to nuclear deterrence at the time of *Dr. Strangelove*. After a generation of neglect, deterrence, in its broadest meaning, is experiencing an overdue renaissance among scholars and policy wonks. For those advocates of nuclear zero that thought conventional precision attack would serve as a panacea for the nation's security challenges, the past twenty years were a disappointment.[5] They failed to deter a number of adversaries America has fought over the last two decades. Most importantly, they have proven all too expensive.

Budgetary Realities

Despite disengaging from Iraq and the start of reductions in Afghanistan the federal budget has a trillion dollar deficit. Employing 52% of the federal work force, the Department of Defense (DoD) is the largest federal employer, leaving it most susceptible to personnel cuts.[6] And with the 2012 defense and national security budgets equaling 63% of discretionary spending, cuts are likely to come to defense many times in the future. Cuts of 25% or more have an historical precedent.

To balance the budget, defense may see draconian cuts. Eventually, Americans must balance the welfare and warfare state when the permanent state of welfare and warfare drains society of its resources.[7] There is always the option of doing nothing, which could persist for a number of years, but

the debt will continue to increase. Doing nothing is inviting because it feeds the political status quo; but the deficit and the debt do not go away.

Dwindling Conventional Forces

Policymakers are realizing there is limited return on investment when fighting counter-insurgencies and occupying foreign countries.[8] Two schools of thought are vying for preeminence in post-Vietnam Conflict national security policy. First, there is one in which the Weinberger doctrine (1984) plays a central role. Here, the US should employ military force in conflicts with: an expected outcome, a given duration, public support, and where vital national interests are at stake. In short, realism is seeking to reassert itself. Second, whether neoconservative or neoliberal internationalist, employing economic and military power to move the world closer to democracy's certain victory is, at least inside the Beltway, the dominant view. President Bill Clinton's globalization and President George W. Bush's doctrine of preemption are two sides of the same coin.

This latter school of thought gave Americans Somalia, Bosnia, and Kosovo during the 1990s and Afghanistan and Iraq in the 2000s. While the country took an "acquisition holiday" during the 1990s, the 2000s saw defense spending increase dramatically in an effort to fight two wars. While the Iraq war is over and Afghanistan is winding down, the bill for replacing the nation's worn-out aircraft and ships is leaving Congress with sticker shock.

Personnel are also an expensive asset. With the largest number of personnel, the Army represents a third of defense costs. It is likely that the

nation's occupation force will be the prime target for reduction in size and capability and rightfully so. It was the Army that grew by almost 20% to meet the demands of Iraq and it is the Army that should shrink in its aftermath. This is not an issue of interservice rivalry, but a question of shifting strategic threats. The Marine Corps also grew during the 2000s and must also return to pre-conflict levels. For the Navy and the Air Force, the past decade was hard times. Absent the services and DoD finding a way to bring down acquisition costs, this decade may prove even tougher.

With all of the previous doom and gloom said, realist advocates of the nuclear arsenal have an opportunity to offer a different and more cost effective vision for national security, but it must include cyber. First, and most importantly, they must overcome Washington's predilection toward costly action and offer a compelling case for restraint on a grand scale. Second, they must move beyond nuclear deterrence and offer a full spectrum of deterrence options, with cyber deterrence they central addition.

Cyber Deterrence

Had Dr. Strangelove been an advisor and scientist in today's department of defense, it is certain that cyber deterrence would play a central role in his deterrence thinking. With cyberspace all the rage within the national security community, it should come as no surprise that cyber deterrence is a rapidly developing area of opportunity. While Cyber weapons lack digital lethality, the ability to kill other systems and create havoc in an adversary's society—with significant human suffering as a side effect—creates the potential to deter an adversary. Deterrence is built on fear that

something painful will happen if an adversary attacks. While it is true that cyber weapons have yet presented a visible threat of mass destruction—as nuclear and conventional arms have—this is changing. It is important to understand both the options embedded in cyber deterrence and the actions that are feasible. Cyber weapons have global reach at a limited cost, but are linked to questions of digital lethality, traceability, and attribution to an originator. After the Stuxnet attack in which malicious code entered the computer networks of the Iranian nuclear program and physically destroyed equipment by manipulate operating speeds, the legal community started a review of cyber weapons. There was no control over where, how, and when Stuxnet proliferated in computer systems according to the legal challenge. Therefore, it was assumed that it could create civilian harm and by doing so become illegal by international law. A combination of the absence of destructive power and the soon-established precedence that cyber weapons are not precise military targets and, therefore, in conflict with international law, erode the opportunity of replacing conventional deterrence with cyber deterrence preparing the way for further reliance on nuclear deterrence. Thus, cyber deterrence is in need of significant development.

Nuclear Deterrence

In the coming decades, nuclear arms can play a greater role in comparison to the last two decades. Nuclear arms are the only weapons that project power from Spitsbergen to Polynesia simultaneously, without moving military hardware or personnel. Political theorist Kenneth N. Waltz argued that the power of nuclear arms lies in not what you do with them, but what

you can do; an argument he was not alone in making. Under severe budgetary pressures, nuclear arms maintain the nation as a great power regardless of economic, cultural, or other influence—a point the Russians understand well. This reasoning also led the United Kingdom to make submarines with nuclear arms a priority, even after the deepest defense cuts since the post-World War II drawdown.

Reliance on nuclear arms to maintain geopolitical equilibrium is visible in Siberia and Russia's Far East, where a resource-rich wilderness borders a resource-craving China. Russia's ability to defend and uphold the territorial sovereignty of its far east relies heavily on nuclear arms. Nuclear arms are returning as a tool of power—even if incrementally.

Boom Time for Boomers, Bombers, and Ballistic Missiles

Austerity and extensive defense budget cuts are triggering renewed interest in the nuclear triad. While the price of boomers, bombers, and intercontinental ballistic missiles (ICBM) may seem relatively high, at less than 10% of the defense budget, both figuratively and literally they offer the greatest bang for the buck. Nuclear submarines projects awe-inspiring and stealthy power beyond the force any armored division or army corps can ever achieve. Bombers allow the president to signal adversaries in a way submarines and missiles cannot. ICBMs increase the threshold for launching an attack against the United States by forcing an adversary to attack the homeland should they seek to destroy our ability to return fire. While the triad may, at first glance, have appeared expensive and outdated after the Cold War, a fiscally constrained military that seeks to maintain

stability across the globe, requires a robust arsenal as means to preventing great powers from beginning and/or escalating conflicts that could go nuclear.[9] In short, they deter and limit great power conflicts, which have proven costly for the United States.[10]

Affordable Deterrence

The United States has no other option than to seek innovative ways to decrease defense costs without losing deterrent power and risking national security. Henry Kissinger once argued that "The absence of alternatives clears the mind marvelously." The future of American deterrence will be connected to affordability. After the era of endless money, as Robert Gates calls the years after 9/11, there are tough decisions to make. Even if defense cuts are imminent, there are several advantages for the US that can be exploited to achieve affordable defense; the nuclear arsenal is key affordability.

> Despite advances in technology the country still enjoys geopolitical advantages; the Pacific and Atlantic oceans protect the country from a variety of conventional military threats. In comparison to other nations, the country is safe geopolitically. The cost to defend the homeland is far less than conducting large-scale, counter-insurgency operations in remote countries—invade, occupy, and rebuild. In general, neighbors to both north and south are friendly (I say in general because of the drug war in Mexico).

From a long-term financial viewpoint, defense focused on the American homeland requires a smaller land force in comparison to today's. With deterrence, intelligence, and the ability to intercept incoming aircraft or missiles enabled by systems that are capital intensive and sophisticated, fewer personnel are required to defend the homeland.

According to Kenneth N. Waltz, deterrence is what you can do, not what you will do. The Second World War started with the Germans misjudging the British and French governments' seriousness to go to war for Poland's freedom by believing that neither the French nor the British were in a position to wage war against Germany in August 1939. The will was of lesser consideration since the Germans reasoned that a nation that is not prepared to go to war will not go to war. The Germans correctly identified a lack of Allied capability. Thus, France was forced into a humiliating peace settlement, resulting in an occupied Paris and the ragtag survivors of the British Expeditionary Forces fled to Britain over Dunkirk after a horrifying defeat.

Throughout history, adversaries have taken steps toward each other that escalated quickly because they underestimated the options and determination of the other based on the presence of resources of war at hand. Because of this, it is important that America is clear about its intentions and capability. The current "no first use" doctrine of the United States is flawed in that it does not strike fear into the hearts of our adversaries by promoting strategic ambiguity. Because it establishes clear red lines, adversaries are encouraged to push the United States to the edge, which is clearly established in policy. It may also be an unwise policy when cyber deterrence reaches maturity.

The United States is the only nation that has used nuclear arms at war when it eradicated two Japanese cities at the end of World War II. None have yet to employ the nuclear option in cyberspace. America is, after all, the only nation that has used nuclear weapons—credibility that should not

be frittered away. For any potential adversary, it is a lethal fact. It might not color the minds of the current American leadership, but it influences foreign leaders. Deterrence relies upon will and capability. If the United States can no longer deter with conventional forces; cyber attack is restrained by international law and military doctrine; international sanctions are ineffective; and coalition building is beyond financial reach; nuclear deterrence becomes the primary upholder of strategic deterrence. When austerity removes other strategically deterring options and the United States is left with nuclear deterrence, Dr. Strangelove and his doomsday machines (cyber and nuclear) can make their triumphal return.

America's ability and willingness to wage all-out war is validated by strategic deterrent patrols, bombers sitting on alert, launch-ready missiles, and an offensive cyber-geddon capability. With these assets ready to reach global targets, deterrence is upheld. No matter whether we want it, believe it, like it, or imagine it, federal austerity will force radical change in the nation's defense posture, which is likely to lead to a greater reliance on nuclear and cyber arms.

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