Mutually Assured Destruction Revisited
Strategic Doctrine in Question

COL ALAN J. PARRINGTON, USAF

> Today I can declare my hope and declare it from the bottom of my heart that we will eventually see the time when the number of nuclear weapons is down to zero and the world is a much better place.
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> —Gen Colin Powell, USA
> Former Chairman, Joint Chiefs of Staff

4

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ON 3 DECEMBER 1996, Gen Lee Butler, USAF, Retired, the last commander in chief of the Strategic Air Command, stunned a National Public Radio audience by calling for the near-term elimination of all nuclear weapons. Speaking to a National Press Club audience, he told them:

> I have spent years studying nuclear weapons effects; inspected dozens of operational units; certified hundreds of crews for their nuclear mission; and approved thousands of targets for nuclear destruction. I have investigated a distressing array of accidents and incidents involving strategic weapons and forces. I have read a library of books and intelligence reports on the Soviet Union and what were believed to be its capabilities and intentions—and seen an army of experts confounded. As an advisor to the President on the employment of nuclear weapons, I have anguished over the imponderable complexities, the profound moral dilemmas, and the mind-numbing compression of decision-making under the threat of nuclear attack. I came away from that experience deeply troubled by what I see as the burden of building and maintaining nuclear arsenals.[1]

General Butler was joined on the rostrum by Gen Andrew J. Goodpaster, the former NATO commander and advisor to a half-dozen presidents during his 70 years of national service. They were there to announce the release of the "Statement on Nuclear Weapons by International Generals and Admirals," a document signed by 63 former flag officers advocating the abolition of nuclear weapons. The signatories read like a Who's Who of cold-war militaries, including such notables as Bernard Rogers, John Galvin, Chuck Horner, Lord Carver, Vladimir Belous, and Alexander Lebed—20 Americans, 18 Russians, and 17 nations in all from every corner of the globe. They were not the first to make such a recommendation, however. As General Goodpaster pointed out, every US president since Dwight Eisenhower has taken a similar position with respect to atomic weapons.

But the generals seemed perplexed. Despite the long widespread questions about the utility of atomic weapons, the world was

5

steadily marching along the path towards nuclear proliferation while the perceived window of opportunity brought about by the end of the cold war slipped away. It was as if the lessons of the past 50 years were too hard to swallow and the elimination of nuclear weapons just too hard to do. Other than garnering a few small articles in the national press, their warnings seemed to have little impact. Where the generals erred was in simply challenging the nuclear bombs, rather than the strategy behind the weapons—a strategy oddly known as mutually assured destruction (MAD).

MAD, of course, is an evolutionary defense

MAD is a product of the 1950s' US doctrine of massive retaliation, and despite attempts to redefine it in contemporary terms like flexible response and nuclear deterrence, it has remained the central theme of American defense planning for well over three decades.

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strategy based on the concept that neither the United States nor its enemies will ever start a nuclear war because the other side will retaliate massively and unacceptably. MAD is a product of the 1950s' US doctrine of massive retaliation, and despite attempts to redefine it in contemporary terms like **flexible response** and **nuclear deterrence**, it has remained the central theme of American defense planning for well over three decades.[2] But MAD was developed during a time of unreliable missile technology and was based on a mortal fear of Communism, aggravated by ignorance of an unknown enemy that lurked behind an iron curtain. Times have changed. Missile guidance improvements have eliminated the need for multiple targeting by redundant weapon systems. More importantly, our enemies have changed as have our fears about Communist domination. It is time to rethink our baseline defense strategy and the doctrine behind it.

The normal reaction to such a suggestion is the often heard: "Why tinker with something that has kept the peace for the past half-century?" Gen Henry H. "Hap" Arnold perhaps best answered this by asserting that modern equipment is but a step in time and that "any Air Force which does not keep its doctrines ahead of its equipment, and its vision far into the future, can only delude the nation into a false sense of security."[3] Furthermore, nuclear weapons did not keep the peace in Korea, Vietnam, Afghanistan, the Middle East, the Balkans, Africa, or Latin America, even though one side in those wars often possessed "the Bomb" and theoretically should have coerced the other side into submission.[4] By one estimate, 125 million people have died in 149 wars since 1945.[5] Well then, what about Western Europe? NATO's threat to use atomic weapons against invading Warsaw Pact forces is said to have preserved the peace in a region where two world wars broke out this century.

Not to take anything away from the Communists, but it was German militarism that led to those conflicts. The Soviet Union did not even exist in 1914 and actually came about as a result of an antiwar movement. After World War I, it was the Europeans that invaded Soviet territory in an unsuccessful effort to suppress Bolshevism by supporting the White Army counterrevolution. Stalin was no peacemaker for sure, but neither he nor his despotic regime was the cause of World War II—a cataclysmic event that cost 27 million Soviet lives.

It is naive to assert that the Soviets would have initiated a third major European war this century absent NATO's threat to use nuclear weapons. Wars do not go off at scheduled intervals. There is always a political objective at issue, and it has yet to be defined what vital Soviet interest could have existed to cause the Soviets to bear the burden of even a conventionally fought World War III. During the heyday of Communism's expansion in the 1950s, Adm Arthur W. Radford, chairman of the US Joint Chiefs of Staff, recognized that "Communism, when seeking a means to a political end is reluctant to use or-

ganized armed forces in an overt aggression except as a last resort," and then only if "there is a reasonable chance of quick victory without— in the opinion of its leaders—appreciable world reaction."[6] Towards the end of the cold war, Michael Howard, Regis Professor of History at Oxford, pointed out, "It is a basic principle of Marxism-Leninism that the revolution cannot be carried abroad on the points of foreign bayonets. . . . It would be quite unrealistic to assume the Russians have been deterred from attacking us solely by their perception of the military costs involved or by fear of nuclear retaliation."[7] Henry Kissinger put it more bluntly in his 1994 treatise Diplomacy: "The much advertised Soviet invasion of Western Europe was a fantasy . . . a fear widely recognized by posterity as chimerical."[8]

Soviet military actions in Europe from 1945 to 1990 suggest more of a policy toward preservation of buffer states than of territorial expansion.[9] Having been overrun twice in his lifetime, Stalin "intended to turn the countries conquered by Soviet armies into buffer zones to protect Russia against any future German aggressions."[10] The hegemony subsequently imposed on the states of Central Europe by the Brezhnev Doctrine was thus understandable, if lamentable, in light of the unprecedented Soviet suffering at the hands of invading German, Italian, Hungarian, and Rumanian armies during World War II. One wonders how Americans may have reacted had the Japanese invaded California after Pearl Harbor and destroyed everything west of the Mississippi. The United States lost a quarter of a million men in World War II; the Soviets lost one hundred times that number, including millions of women and children. It should not be difficult to understand the paranoia typified by the Iron Curtain and Berlin Wall. Conversely, the Soviet's postwar evacuation and laissez-faire treatment of nonstrategic Austria and Finland stand in the face of the popular notion of the Soviets as a monolithic leviathan bent on conquering the West through military aggression. To argue that nuclear weapons were the only thing that held the Soviets at bay is simply unfounded.

Nuclear weapons have only deterred nuclear war, and, ironically, very nearly caused one in the process. Everyone remembers that it was Khrushchev's placement of short-range nuclear missiles on America's doorstep that created the Cuban missile crisis, but most people are unaware that it was a similar US move on the Soviet periphery that caused the Kremlin's deployment decision in the first

> **"The much advertised Soviet invasion of Western Europe was a fantasy . . . a fear widely recognized by posterity as chimerical."**

place. The American postwar policy of "containment," which aimed at meeting the Marxists on their doorstep, had resulted in a network of US bases and naval fleets that ringed the Communist empire with conventional and nuclear armed forces. When Khrushchev tried to match the US deployment of missiles to Turkey by placing Soviet weapons in Cuba, the world came very close to catastrophe.[11] The world went to the brink of war over nothing more than nuclear posturing. The Soviets blinked, we are told, but the US also quietly removed its nuclear missiles from astride the USSR's southern flank.[12] The Russian loss of face, unfortunately, added fissionable fuel to an already aggressive arms race that either side could ill afford.

It is difficult, if not impossible, to calculate the costs of the strategic arms race of the last 50 years. Not only are the bombs and delivery systems expensive to produce, crisscrossing numerous US departmental budgets, but survivability measures needed to insure their use during war are staggering, not to mention the environmental, psychological, and opportunity cost factors. A 1988 Department of Defense (DOD) study indicated that nuclear-club nations typically spent more than twice as much on defense as did nonnuclear countries with similar requirements.[13] A more recent Brookings Institution report put the

costs of the 70,000 US nuclear weapons built thus far at a minimum of four trillion dollars[14]—or very nearly equal to our national debt. While some analysts argue that those are economic, not security, considerations the demise of the Soviet Union has shown most clearly that the two issues are not mutually exclusive. Moreover, the historical response to a superior nuclear threat has been a countervalue strategy adopted by the enemy. There has been an inverse relationship between national security gained and money spent.

Is there a safe way for the West to reduce its reliance on nuclear weapons without endangering national security? The question might better be posed by asking if we can eliminate our reliance on nuclear weapons without endangering our national existence anymore than it is threatened right now by the thousands of Soviet warheads still on alert, or in the near future when unstable nations like North Korea or Iraq acquire their own bombs.

Arms control negotiators would tell us that the Strategic Arms Reduction Talks (START) agreements are doing just that. But even if after the yet to be ratified START II and III are implemented in 2007, the United States and Russia will still have five thousand nuclear weapons on alert, more than enough to destroy civilization as we know it. What is worse is that by simply reducing the excess inventory of nuclear weapons, the superpowers send the signal that they believe nuclear arsenals to be a vital part of national security and integral to status as a world power. The constant admonition to developing nations to forgo their own weapons programs comes across as elitist hypocrisy, routinely falling on deaf ears.

Proponents of national missile defense (NMD) systems argue their ideas will counter the emerging threat from nuclear proliferation, but promised technology appears farther and farther away. Even if Star Wars (the Strategic Defense Initiative) were to succeed, it would only defend against delivery systems and not the bombs themselves. Any nation unable to secure its borders against drug-

running cartels will remain vulnerable to weapons that can fit in a suitcase, diplomatic pouch, or Ryder rental truck. Noble as it may be, NMD is no panacea.

Even so, it is not really the nuclear missiles or warheads that are the problem: **It is the flawed strategy behind the weapons that justifies noncombatants as targets, and in so doing makes all weapons of mass destruction so speciously attractive that is the greatest threat to national security.** Many Americans may be surprised to learn that it was a fundamental shift in US military strategy 60 years ago that has led to the current dilemma.

During the 1920s and 1930s, airmen in the United States and Europe became enamored with strategic bombing. They believed the stalemated trench warfare of World War I could be avoided by directly attacking and destroying the enemy's center of gravity—its population's will to resist.[15] "Instead of wearing down the morale of the enemy civilians through the attrition of surface operations, air power, its protagonists believed, would be able to attack and pulverize it completely."[16] The localized panics caused by the German Gotha bomber attacks against London in World War I led airmen to believe that any nation could be brought to its knees by simply destroying the industrial base and causing widespread deprivations. The populations, it was argued, would rise up against the enemy government and cause it to sue for peace. It was even postulated that the threat of strategic bombing would "deter" an enemy from ever starting a war.[17]

World War II put these theories to the test. When it was over, strategic bombing proponents argued the destruction of German and Japanese industrial societies was "decisive."[18] Many independent analysts disagreed.[19] The facts were that despite the heroic sacrifices of the aircrews involved, strategic bombing never came close to its prewar predictions; and the costs in manpower, material, and moral factors posed serious questions about its value.[20] In fact, the bombing of civilian areas was actually found to increase the enemy population's will to resist rather than defeat-

Symbols of deterrence or MAD? Clockwise from upper right: the famous "Red Phone" of the primary alerting system at the SAC command post; the battle staff aboard "Looking Glass," SAC's Airborne Command Post; a B-52 crew races the clock to their aircraft; a Minuteman missile on alert at Ellsworth AFB, South Dakota; and B-58 crew members sprint to their plane.

ing it. It was widely acknowledged, for example, that the Luftwaffe lost the Battle of Britain when it switched from attacking military targets to attacking London.[21] The German Blitz also angered many neutrals in the United States and eventually led to the entry of the United States into the war on Britain's side, a fatal mistake for the fascists. Still, many Allied airmen remained unconvinced, clinging to their dogmatic beliefs that bombing alone could win a war against the Nazis. City after city was flattened, but the bombing had negative impact in forcing a German surrender. After the war, airmen argued that development of the atomic bomb vindicated their claim that strategic bombing could at least deter future wars. But as we have seen, this has not been the case.

The way to curtail our dependence on nuclear weapons is to first recognize that strategic bombardment is counterproductive. Carl von Clausewitz, the grandfather of contemporary military strategy, wrote that the objective of war is to force an opponent to accept one's political will. His statement that war is "an extension of political activity by other means" is often quoted.[22] The means, however, have to support the ends. Professor Howard explains:

> Clausewitz had described war as a "remarkable trinity" composed of its political objective, its practical instruments and of popular passions, the social forces it expressed. It was the latter, he pointed out, that made the wars of the French Revolution so different in kind from those of Frederick the Great and which would probably so distinguish war in the future. In this he was right.[23]

While strategic bombing may have some positive, usually indirect, effect on the enemy instruments of war, it is also known to have a decidedly negative and immediate effect upon achieving the more important political objective, for it inflames enemy social passions into militant, often irrational, resistance.[24] One need only think of Pearl Harbor ("A day that will live in infamy!"), the London Blitz, Stalingrad, or a similar campaign to appreciate the effect of strategic bombing on the national will to resist.

If the objective of war is, as Clausewitz states, to convert the enemy's political will, attacking his home, his family, his means of existence—in other words, his passions—is clearly antithetical to the aim. There is, unfortunately, the popular myth that massive and unrestricted application of strategic airpower, such as occurred in Japan in August 1945 or North Vietnam during Christmas 1972, can secure an honorable peace without the need for further action.[25] This is nothing more than wishful, perhaps dangerous, thinking that falls apart under examination.[26]

Lessons from the Strategic Bombing of Japan

While most historians recognize 1 September 1939, the day that Adolf Hitler invaded Poland, as the beginning of World War II, Americans remember 7 December 1941, the day the Japanese bombed Pearl Harbor, as the start of their war. The Japanese had, in fact, been at war for some time. They had been invading their East Asian neighbors uninterruptedly for most of the twentieth century. Their attacks on Manchuria and China in the early 1930s brought them into confrontation with the United States. As the decade progressed, relations grew tense. Embargoes and ultimatums finally brought the crisis to a head, but thoughts of war with the United States was not something Japanese leaders cherished.

Six months before the attack on Hawaii, Japanese military analysts concluded that if a war with the United States were to last more than 18 months, it could only end in defeat. The only Japanese hope was for a series of rapid crushing blows against Allied forces in the Far East followed by a decisive naval battle against the remaining American fleet. Successive quick victories were to be followed by negotiations and settlement that ceded the Western Pacific to Japanese hegemony. A similar strategy had been successfully employed against the Russians in 1904.

For the first three months after Pearl Harbor, the Japanese strategy worked. The Philip-

Bombs away! B-29s drop incendiaries on Yokohama.

pines fell, and Singapore was captured. A relieving British Royal Navy task force was quickly sent to the bottom. Japanese codes had, however, been broken by American cryptologists, and the US Navy could not be lured into a trap. The war dragged on. Emperor Hirohito instructed his ministers to "miss no chance for concluding an advantageous peace."[27] But the attack on Hawaii had hit an unexpected nerve, and Americans were in no mood for compromise. The United States began to mobilize forces such as the world had never seen. The worst fears of Japanese war planners came to be realized. By the end of 1943, independent Japanese army and navy studies reported that the war had been irrevocably lost, the only factor yet to be determined being the terms of surrender.[28] Thus, long before the first strategic bomber came within range of Japanese shores in late 1944, its leaders were resigned to defeat. As one historian wrote:

> The majority of Japanese officials had long recognized the need to surrender but their will was frozen. They did not know how to admit to one another that they were beaten. They only knew what they had done in their own conquests, and they feared vengeance in kind.[29]

When the strategic bombers did arrive in the winter of 1944–45, the effect was, as it had been in Europe, to add to the level of anxiety rather than to assuage it.

The US Army Air Forces saw in Japan a unique opportunity to redeem its prewar doctrine of victory through strategic bombing and spared no effort establishing Pacific island airfields for its new long-range B-29 bomber. Japan appeared the ideal strategic target, having no air defense to speak of with a highly urbanized population offering "vital centers" of commerce. At first, the B-29s struck industrial targets from high altitudes with measurable success, but with no appreciable effect on the governing body politic. Resistance increased sharply on Iwo Jima and other island fortresses with the advent of ka-

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mikaze and similar desperation tactics. American casualties grew in proportion with each passing month.

Having failed to produce any sign of capitulation, planners changed bombing tactics. In mid-March the B-29s came in low under the cover of darkness, dropping incendiaries on the densely populated urban districts of Tokyo as well as 58 other metropolitan districts.[30] Hundreds of thousands perished, but the Japanese will would not crack. War losses on Okinawa in April reached record levels for both sides and for the first time, the Japanese inflicted more casualties than they suffered.[31] One scholar, citing the US Strategic Bombing Survey, wrote:

> The (Tokyo) fire convinced the Japanese lower classes, as no propaganda ever could, that surrender was, indeed, out of the question and that Americans really were demons bent on exterminating all Japanese.[32]

The war dragged on throughout the summer as Americans prepared for a much dreaded invasion of the Japanese home islands. Negotiations through neutral coun-

tries produced no positive results. At Potsdam in July, Allied leaders tried to clarify the terms of surrender by putting a liberal face on postwar occupation. But doubts about the status of the emperor continued to be the primary obstacle to peace. Even the atomic bombs, dropped on Hiroshima and Nagasaki in early August, were insufficient to convince the Japanese Peace Cabinet, as American diplomats had dubbed it, to submit to an "unconditional surrender." In vote after vote, they rejected the Allies' ultimatum as "a religious article of faith."[33] Only personal intervention by the emperor changed the calculus.

What finally convinced Hirohito to act was not the atomic bomb or the threat of a US invasion but an event more compelling than both. On 8 August 1946, two days after Hiroshima and on the eve of Nagasaki, the Soviet Union declared war on Japan. The long-established foe of Japan in the Far East attacked across a broad frontier with a ruthless million-man Red Army in coordination with their Maoist Chinese comrades.[34] Decades of humiliating Japanese triumph and aggression over its East Asian neighbors were coming to fruition. "The thought of a Russian invasion was terrifying enough, but the thought of a Chinese revenge raised cold sweat."[35] The emperor, fully aware of what had happened to the czar and his family at the hands of the Bolsheviks, wasted no time in coming to a decision.

Faced with the alternatives of either a US or Sino-Soviet occupation, Hirohito intervened and overruled the Peace Cabinet, directing the foreign minister to accept the Potsdam Ultimatum "with the understanding that the said declaration does not compromise any demand which prejudices the prerogatives of his majesty as a sovereign ruler."[36] The United States accepted in substance, if not in form, the conditional surrender proffered. The semideified emperor, himself having been spared, ordered his disbelieving armed forces to lay down their weapons, but not before an unsuccessful coup threatened his life.

Haiphong, 1972. There is, unfortunately, the popular myth that massive and unrestricted application of strategic airpower such as occurred in North Vietnam can secure an honorable peace without the need for further action.

"Japan was beaten as thoroughly as any nation had ever been beaten in history."[37] The last aircraft carrier had been sunk, the last battleship sent to the bottom. Its air forces had long since sacrificed its pilot corps in kamikaze attacks, and its once proud army had retreated into fighting from island caves. The Japanese were not defeated by strategic bombing but by the cumulative weight of Allied land, sea, and air power that had disarmed its military of its sinews and its government of its credibility. If anything, strategic bombing delayed the inevitable by alienating diplomacy. The atomic bombs were but a convenient scape goat, for "in the unforeseen and unanswerable bomb, Hirohito saw a face-saving excuse for Japan's fighting men, one which

could be used to ease the humiliation of defeat and smooth the pathway to surrender."[38]

Lessons from Strategic Bombing in Vietnam

During the last 25 years, strategic bombing proponents have argued that the 1972 Christmas bombing of North Vietnam is what caused the Communists to finally accept the American peace proposals to end the war in Vietnam.[39] Again, the facts dispute this conclusion.

The history of war in Vietnam is too well known to repeat here except to say that it began during the Japanese occupation in World

War II and proceeded unabated until 1975, when North Vietnam overran the South. American involvement began in the 1950s, a consequence of the previously discussed US cold war policy of containment. It peaked during the late 1960s with over a half-million

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US troops deployed throughout Southeast Asia and ended in the early 1970s following loss of public support.

Negotiations to end the American involvement began in Paris in the spring of 1972. By October of that year, a draft agreement was reached with North Vietnam that called for an in-place cease-fire followed by a unilateral US withdrawal. "Peace is at hand" was the widely touted aphorism used to describe the situation leading up to the American presidential election that November. South Vietnam's president Nguyen Van Thieu, who was not part of the negotiations, subsequently let it be known, however, that he would not sign any agreement that left 149,000 North Vietnamese regulars inside his country's border ready to attack after the Americans left.[40]

Back in Paris, US negotiators, buoyed by the Nixon landslide electoral victory, tried to inject Thieu's demands for a Communist withdrawal into the October agreement. The North Vietnamese stalled and walked out of the talks. The agreement began to unravel. To pressure the North and reassure the South, President Nixon ordered an unprecedented round-the-clock aerial attack on North Vietnam, stating he would continue the attacks until the North showed a more constructive negotiating attitude. In the end, it was Thieu

who was made to show flexibility. After 12 days of bombing with no Communist concessions in sight, Thieu was told by Nixon to accept the October agreement or else go it alone. South Vietnam had little choice but to accept the fait accompli. The Christmas season bombing did not materially change Hanoi's previous position, and at the January 1973 conference table, it was the US negotiators who capitulated.[41]

No clearer statement of Hanoi's intentions, or of strategic bombing's limitations, need be found than in the North's actions immediately following the signing of the Paris Accords. Before the United States had time to fully withdraw, the Communists began the buildup in the South for their final offensive in direct violation of the peace agreement; and despite American threats to again bring strategic airpower to bear,[42] North Vietnam was never deterred, and the Christmas bombing's only real effect was to open a window for the United States to "leave with honor." As Professor Howard observes, "It was only an episode in a strategic defeat."[43]

Lessons from Strategic Bombing in the Persian Gulf

Some pundits have asserted that after 70 years of unfulfilled promises, airpower finally came of age in the 1991 Persian Gulf War with Iraq. Certainly, if strategic bombing ever had the opportunity to prove itself, it was during Desert Storm. Air planners had five months and nearly limitless resources to prepare for what was clearly going to be a one-sided battle in terms of numbers, technology, intelligence, communications, airmanship, and geopolitical advantage. Allied air commanders also had the luxury of attacking from numerous directions in an environment of generally excellent flying weather. Furthermore, American aircrews had spent the last two decades conducting large-scale exercises over similar terrain in the US Southwest. They were at the top of their cold-war form. They could not have been better prepared or better led.

The Desert Storm air planning staff, affectionately dubbed the "Black Hole," had considerable freedom in planning their strategic campaign. They were also greatly assisted by the Air Staff at the Pentagon. A prioritized list of strategic targets was "aimed at winning the war by destroying Iraq's governing infrastructure and causing Saddam Hussein's overthrow."[44] Targets included command and control, telecommunications, electric power production, oil refineries, railroads, and bridges. It also targeted suspected nuclear, biological, and chemical weapons facilities as well as Scud surface-to-surface capabilities.[45] The planners hoped to apply indirect pressure on Saddam by causing economic deprivations on the Iraqi population who would, in the words of the plan's chief architects, get the signal that "Hey, your lights will come back on as soon as you get rid of Saddam."[46]

The thousand-hour air war began on 16 January 1991 and continued unabated until 24 February, when the ground war commenced. During the six-week interval, most of Iraq's infrastructure was destroyed as planned.

> Yet, at the war's end, Saddam Hussein was still alive and his Ba'athist regime still in power. . . . Thus, the results of these attacks clearly fell short of fulfilling the ambitious hope, entertained by at least some airmen, that bombing . . . might put enough pressure on the regime to bring about its overthrow and completely sever communications between the leaders in Baghdad and their military forces.[47]

On the battlefield in Kuwait, and along the lines of communication leading into it, **tactical airpower** did play the decisive role, as it has in every major war of this century. In fact, tacair "devastated the Iraqi army . . . and all but won the war."[48] But, in the strategic sense, in the ability to force a decision in and of its own accord, airpower was incapable of driving Saddam Hussein from power or his troops from Kuwait as strategic bombing advocates **first** suggested. Nor was strategic bombing able to destroy Saddam's nuclear, biological, and chemical program as originally claimed.[49] As before, strategic airpower fell

well short of its goals while tactical airpower, in concert with army and naval surface operations, secured the victory.

"Yet, at the war's end, Saddam Hussein was still alive and his Ba'athist regime still in power."

It is difficult, perhaps dangerous, to draw too many lessons from so one-sided a war that in reality is not yet over, but if one axiom emerged, it was "rooted in the pervasive view that nuclear weapons, in any form, were politically unacceptable, except as an instrument of last resort."[50] Not only was the civilized world repulsed by Saddam's threat to use weapons of mass destruction, but coalition planners also rediscovered how apolitical their own nuclear arsenals were in the context of a real war. Staff proposals to develop nuclear options were quickly shot down at every decision level. In the political arena where real war strategy is vetted, the trillion-dollar nuclear arsenals had little utility. Curiously, this important geopolitical lesson was lost on its way back to Western capitals where war planners, NATO's chiefly among them, dogmatically clung to cold-war nuclear doctrines as if

> the technological capabilities of nuclear arsenals are treated as being decisive in themselves, involving a calculation of risk and outcome so complete and discrete that neither the political motivation for the conflict nor the social factors involved in its conduct—nor indeed the military activity of fighting are taken into account at all.[51]

Lessons from the Cold War

NATO's long-established threat to go nuclear if conventional defense fails has always been blustering at best, suicidal at worst, for it ignores the very social factors from whence it

gathers its authority.[52] Can anyone seriously believe that the same nations who refuse to consider the use of nuclear weapons in a far-off desert scenario would initiate employment of such weapons in their own communities? Put in another context, would the Allies have used atomic bombs to stop Hitler's invasion of Poland in 1939 or even France a half year later? Great Britain repeatedly threatened the use of strategic chemical bombs prior to 1939 but quickly backed

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Nuclear weapons have been no more useful in stopping war than the vaunted Maginot line at stopping Hitler.

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down when real war came.[53] France went so far as to declare Paris an open city to preclude its destruction when its territorial defenses crumbled.

President Truman did authorize the use of atomic weapons to try to shock Japan into the unconditional surrender (American intelligence knew the Japanese were working through neutral intermediaries for more favorable terms), but would he have done so at the beginning of a war against an equally armed opponent given the perspective we have now? Truman fired Gen Douglas MacArthur for publicly advocating their use in Korea. Nuclear weapons have been no more useful in stopping war than the vaunted Maginot line at stopping Hitler.

The danger in NATO's threat to use nuclear weapons if conventional defense fails is that it sanctions widespread collateral damage as a factor of modern war and thereby encourages Third World militaries to acquire their own nuclear arsenals on the basis of legitimate self-defense. It also compels a first-strike doctrine by way of a use-or-lose logic. Analogous to the irreversible mobilizations that led to World War I, nuclear war once started will prove almost impossible to stop. As General Butler put it, "Nuclear war is a raging, insatiable beast whose instincts and appetites we

pretend to understand but cannot possibly control."[54] The tens of thousands of warheads now positioned on alert create a tinderbox atmosphere not warranted by current diplomatic relations.

In January 1996, Russian strategic rocket forces, reacting to a scheduled launch of a Norwegian scientific rocket, went on full alert thinking they were under attack. Boris Yeltsin is said to have activated "his nuclear briefcase" coming within 60 seconds of a massive offensive response.[55] Ballistic Missile Defense Office officials in Washington acknowledged the incident but placed the threat of an accidental Russian launch at no more then 3 percent. For many Americans that is unacceptably high, particularly in today's post-cold-war regime.[56] The second step toward nuclear withdrawal should be a negotiated removal of all, not just obsolete, strategic weapons from their immediate launch postures. This is the position adopted by the international generals and admirals.

This is not as destabilizing as it may sound. Wars do not simply occur like some unpredictable natural phenomena; they are the last event in a long string of failed diplomatic and economic ties. Warning time is integral to the process to which military preparedness can and should be correlated. But the scope of readiness cannot be from instant overkill in peace to superannihilation in crisis if we intend for political diplomacy to prevail over military necessity. Stability comes from the former, not the latter, for it is the relationship between forces that counts.[57] It should be remembered that World War I was not caused by insoluble political differences, but was the result of military mobilization schedules that could not be stopped once started.

We cannot "disinvent" atomic weapons, but we can holster their potential to drive events rather than respond to them. Verifiable measures could be instituted over time to the point where nuclear weapons could be removed from their threatening missile silos, submarine launch tubes, and aircraft bomb bays to be safely stored in survivable locations for recall if ever needed. In 1991, President George Bush took a positive step in this

direction by ordering the tactical weapons denuclearization of the US naval surface fleet and the stand-down of the strategic bomber alert force. Since then, little progress has been made despite the current administration's claims that Russian missiles are no longer targeted at the United States, a dubious claim that galls many critics.[58]

To accomplish such a fundamental change in strategy, we must first dislodge the institutional inertia that relegates the Triad (the three-layered redundancy of land, sea, and air nuclear forces) to off-limits, closed-door discussions. Too many politicians, afraid to be labeled as weak on defense, hide behind the dual shield of secrecy and arms talks, abrogating their constitutional responsibility to publicly debate and set nuclear war-fighting policy. Many senior military leaders, concerned with day-to-day operations against a mirror-imaged foe, have similarly taken a "not on my watch" hard line, describing as destabilizing anything but the same old doctrine. Some boldly suggest that what supposedly worked against secular Soviets will work against radical religious fundamentalists. It is as if MAD and the Triad were sacrosanct. But this is not the 1960s.

The factors that generated MAD and its doctrines no longer exist, if they ever did. During the 1950s, Air Force leaders, almost to the man, did not believe in the stability of mutual deterrence, describing the concept as "a dangerous fallacy" and "a tremendous disservice." One leader wrote, "I suggest that the so called atomic 'stalemate' or 'standoff' is more of a psychological than a real deterrent. At best it is a cliché born of the natural tendency to rationalize away the prospects of total atomic war."[59] Those individuals were arguing for more, not fewer, atomic weapons, but their conclusions were drawn when dramatically few weapons existed.

The perennial argument that we must modernize because others will whether we do so or not ignores the historical fact that it was the United States that was first to develop or conceive every major innovation in the nuclear arms race. We developed the atomic

Is there a safe way for the West to reduce its reliance on nuclear weapons without endangering national security?

bomb, the hydrogen bomb, the neutron bomb, and the multiple independently targeted reentry vehicle (MIRV) warhead. We were also the first to deploy long-range strategic bombers, intercontinental ballistic missiles (ICBM), sea-launched ballistic missiles (SLBM), and cruise missiles.[60] We continue to innovate with the B-2 and its new weapons. If the rest of the world has done anything, it is to try to play catch-up ball in a game that cannot be won. The notion that the Soviets tried to acquire nuclear superiority and in the process accelerated the demise of their economy is a Pyrrhic victory given the missile threat we still face, the burdens General Butler describes, and the inevitable proliferation of nuclear weapons into unstable terrorists' hands.

Many military leaders do not believe we need to maintain and modernize our current nuclear capabilities, certainly not at the cost of future conventional weapons

or more cuts in force size. The world is changing, and so must we. We need a strong military, but we need one that is equipped with quantities of superior weapons it can use to defend our long-term national interests. We must spend our limited defense dollars wisely.

Finally, we need to develop and enforce international laws regarding the use of nuclear weapons. Militaries, both here and abroad, already categorized nuclear bombs with other unconventional ordnance using the common label "NBC" for nuclear, biological, and chemical devices. The term **unconventional** belies the characteristics of the class that as a rule constitutes inhumane weapons causing severe and lasting collateral damage. Strategists have been confounded for eight decades to define a clear set of circumstances where use of these types of weapons can be justified, and thus civilized nations have established treaties to outlaw the latter two elements of the NBC set as an unacceptable means of defense.

Nuclear weapons, like chemical and biological devices, should be banned from civilized warfare, as envisioned in Article VI of the Nuclear Non-Proliferation Treaty, to which we are a principal signatory. We need not wait until some Third World nation decimates its enemy's capital before we collectively label the development and/or use of chemical, biological, or nuclear weapons a criminal act of war punishable by international sanctions. Of course, this may require that we abandon strategic warfare altogether, for it goes to the very heart of the question of what war is really all about. The truth is we would be better off militarily and economically, for there are far more productive ways of convincing opponents to accept our political will than by attacking their passions. We might even find it more civilized.

We must, in the end, recognize that it was the United States that led the world down the strategic nuclear warfare path, and it is only the United States that can lead from the precipice upon which we are now lodged. The United States developed atomic weapons not in response to a military need but as a hedge against Nazi terror. The Soviets developed their arsenal in response to the United States; the Chinese in response to the Soviets; the Indians, the Chinese; the Pakistanis, the Indians; and so on. It is fruitless for developed nations to continue to decry the nuclear proliferation of Third World countries while simultaneously maintaining their own arsenals. If the United States, the world's only remaining superpower, provides the leadership, other nations will follow, for it is in their primary interests to do so. To continue in the same direction is to defy the process of history.

Since the seventeenth century, wars have progressively become more destructive and inhuman, no doubt the result of an industrial revolution that put a weapon in every peasant's hand. Democracy has been no cure, and in fact may have added to the inhumanity by fomenting intense nationalism and partisanship as in the American Civil War, when six hundred thousand fellow countrymen lost their lives over the democratic question of states' rights. World War I saw 10 million men killed in the trenches of a senseless stalemate egged on by nationalistic pride. World War II saw another 50 million perish, most of them civilians in bombed-out cities and concentration camps, justified in the name of "total war" that was started by a free and democratically elected chancellor of the German Third Reich. If the world is to reverse the tide of history and survive the atomic age, we must soon recognize the incompatibility of weapons of mass destruction with the political nature of warfare. Only then will we begin to change the counterproductive strategies that threaten us all. □

NOTES

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