

“Nuclear Strategy,” by William Burr

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NUCLEAR STRATEGY. Until 1945, Americans could assume that any wars they fought would not be fundamentally ruinous to their society. The nuclear era challenged that assumption not only because of the destructiveness of nuclear weapons, but also because of the dangers associated with the Cold War. For many years, U.S. military planners, policy-oriented savants, and political leaders would ponder how nuclear war could or should be fought, how it could be prevented, and whether such outcomes as victory, survival, or defense were even conceivable. Nuclear strategy became an academic discipline as well as a preoccupation of civil servants, think-tank intellectuals, and military officers, most of whom worked in strict secrecy. The last were nuclear strategy’s most significant practitioners and were strongly resistant to civilian pressures. Military secrecy, however, could not prevent ethical and political critiques by scholars and political activists.

During the Cold War and after, nuclear strategy’s guiding concept was deterrence. U.S. presidents from Harry S. Truman to George W. Bush believed that only the threat of nuclear attack would dissuade an expansionist Soviet leadership from escalating political conflicts into military ones. If deterrence failed and war broke out, they further believed, nuclear war plans and capabilities were essential. To prepare for the worst case and to make deterrence credible as the Soviets developed their own nuclear capabilities, U.S. presidents approved massive investments in a nuclear weapons complex that between 1940 and 1997 totaled \$5.4 trillion (in 1996 dollars).

The Truman and Eisenhower Years. Organizationally, the U.S. Air Force’s Strategic Air Command (SAC), created in 1946, underpinned U.S. nuclear planning and operations. At first possessing only a handful of weapons and nuclear-capable bombers, SAC by 1950 had more than 250 nuclear-capable aircraft, and nearly 300 atomic weapons were in the U.S. stockpile.

Although President Truman had come to see atomic weapons as instruments of “terror” with no legitimate military purpose, in the Fall of 1948, with tensions over Berlin mounting, he authorized the military to incorporate atomic weapons into their planning. (The Air Force had unilaterally done so in 1947.) So that bombers could reach targets in the Soviet Union without refueling, Truman also approved deployments of nuclear bombers in the United Kingdom. U.S. capability to produce fissile material (highly enriched uranium and plutonium) expanded rapidly in 1949–1950, facilitating development of tremendously destructive thermonuclear weapons (H-bombs) and permitting the “overkill” nuclear posture that soon emerged. By 1966, the Atomic Energy Commission (AEC) had produced 32,200 nuclear weapons, many in the megaton class.

Even before Dwight D. Eisenhower’s presidency, U.S. nuclear strategy was premised upon “massive retaliation.” In the late 1940s, SAC and the Joint Chiefs of Staff formulated atomic war plans involving a single massive bomber strike against Soviet targets. Viewing defense against strategic bombing attacks as hopeless, SAC commander in chief General Curtis LeMay (1906–1990) insisted that whoever took the offensive first would prevail and that a preemptive attack would be justified if a Soviet attack seemed likely. Although SAC’s early plans focused on Soviet industrial and energy targets, after the Soviets tested an atomic bomb in 1949 military planners stressed “counterforce” targeting of Soviet nuclear installations and weapons delivery capabilities.

President Eisenhower and his advisers publicly embraced this concept of a massive nuclear strike, or “massive retaliation.” Despite Eisenhower’s private misgivings that thermonuclear weapons endangered civilization, he presided over multi-billion-dollar investments in long-range delivery systems, both bombers and intercontinental ballistic missiles (ICBMs) as well as submarine-launched ballistic missiles (SLBMs). By the late 1950s, SAC had developed an “Air Power Battle Target System” comprising more than fourteen hundred Soviet targets, with

most requiring “immediate attack” in the event of war: air bases, nuclear stockpiles and production facilities, and command and control systems. After a LeMay briefing on SAC’s war plans, a naval officer commented that it would leave Russia “a smoking radiating ruin at the end of two hours.”

The 1950s brought an outpouring of academic writing on nuclear strategy. Henry Kissinger’s *Nuclear Weapons and Foreign Policy* (1957), a study of “limited nuclear war,” was best known, but other strategists, including Bernard Brodie, Herman Kahn, William W. Kaufmann, Thomas Schelling, and Albert Wohlstetter, at the air force-supported RAND Corporation, shared Kissinger’s assumption that threatening massive use of nuclear weapons lacked credibility. Chief of Naval Operations Arleigh Burke argued for “finite deterrence” rather than massive retaliation. The nearly invulnerable Polaris submarine-launched missile, Burke asserted, in contrast to vulnerable ground-based missiles, which had to be used quickly, would allow presidents to respond in a measured way in a crisis.

At the close of his administration, Eisenhower presided over the formulation of a new war plan, the Single Integrated Operational Plan (SIOP). Produced by a SAC-directed Joint Strategic Target Planning Staff, the first SIOP—for fiscal year 1962—envisioned launching 3,200 nuclear weapons against 2,600 installations in the Soviet Union, China, and the satellite nations, with up to 425 million casualties. These details “frightened the devil” out of Eisenhower; nevertheless, he approved SIOP-62 in late 1960 as the basis of force deployments, warhead production, and alert postures.

From the late 1940s on, antinuclear protest movements in the United States and abroad stressed the threat to humane values and to civilization itself that nuclear weapons posed. Public opinion may have helped incline successive administrations toward a “late use” posture, with nuclear weapons justified only in the most extreme circumstances.

The Kennedy-Johnson and Nixon Years. The John F. Kennedy administration took a key step toward facilitating “late use” by supporting “flexible response” strategies to provide nonnuclear deterrence options. Determined to make nuclear war more “controllable,” Secretary of Defense Robert McNamara (1961–1968) expressed interest in William W. Kaufmann’s counterforce “no cities” strategy designed to give civilian leaders supposedly more credible choices than mass slaughter of civilians. Although SAC planners considered “controlled response” impractical, they agreed that the SIOP should include a range of attack options as well as “withholds,” such as taking China or satellite countries off the target list if they were not at war. Nevertheless, SIOP-63 still envisioned huge attacks reflecting a “massive retaliation” approach.

Although McNamara’s public rhetoric initially emphasized “damage limiting” strategies that could reduce Soviet capabilities to strike American targets without devastating cities and killing millions, that approach proved controversial because of its first-strike implications. McNamara soon changed his deterrent focus to “assured destruction”—a capability to destroy Soviet industry and war-making capability even if the Soviets struck first. Nevertheless, operational planning continued to emphasize targeting of Soviet strategic sites, suggesting that nuclear planners anticipated making the first blow in any military confrontation before absorbing a Soviet attack. Satellite photography, improvements in missile accuracy, and the development of multiple independently targetable reentry vehicles (MIRVs) underscored America’s growing capability to strike specific military targets such as missile bases.

New satellite warning systems enabled Richard M. Nixon to insist more successfully than his predecessors that the military develop credible alternatives to the SIOP’s all-out attacks. By 1974, studies ordered by Nixon and Kissinger, the national security adviser, led to a secret directive requiring distinct nu-

clear attack options—limited, selected, major, and regional—to enhance control over escalation and encourage early termination of a war. Recognizing that deterrence could fail (and tacitly confirming Soviet arguments that nuclear conflict could not be contained), Nixon in 1974 also requested plans to enhance the U.S. postwar position by destroying targets critical to Soviet recovery, which meant the indirect targeting of the civilian population. Moreover, military planners were instructed to set aside a strategic reserve of survivable forces, such as SLBMs, for “protection and coercion during and after major nuclear conflict.” Within two years the SIOP provided the White House with a greater variety of nuclear options.

In part because of domestic political pressures to control a spiraling arms race, arms control loomed large in Nixon administration nuclear strategy. Pursuing détente with Moscow, Nixon and Kissinger sought limits on strategic forces while preserving strategic options in the event of conflict.

The Carter and Reagan Years. As détente collapsed in the late 1970s, President Jimmy Carter approved significant changes in nuclear strategy in Presidential Directive 59 authorizing planning for a protracted nuclear war if deterrence failed. Carter also directed targeting of underground Soviet command posts on the grounds that a threat to the Soviet political and military leadership would strengthen deterrence. In 1981, President Ronald Reagan reaffirmed Carter’s concept of a prolonged nuclear war, adding that in such a conflict the United States “must prevail” and “force the Soviet Union to seek earliest termination of hostilities.” In his 1983 Strategic Defense Initiative, Reagan also proposed a protective shield against incoming missiles. The goal of “prevailing” remained national strategy until President Bill Clinton rescinded it in 1997.

The Post-Cold War Era. The end of the Cold War produced significant changes in nuclear-force deployments and war plans, if not in strategy. Defense officials removed thousands of former Soviet-bloc targets from the SIOP and deactivated thousands of nuclear weapons. Budgetary trends suggested the impact of global political developments; in 1990, the nuclear-weapons budget stood at about \$56 billion (in 1996 dollars); 1998, it was \$35 billion. Nevertheless, President Clinton did not challenge the military’s commitment to deterrence. Secrecy cloaked his administration’s nuclear-policy deliberations, but nuclear-strategy and targeting guidelines approved by Clinton in 1997 apparently embodied long-standing concerns with Russian and Chinese strategic forces while also reflecting new worries about countries capable of developing weapons of mass destruction—nuclear, biological, or chemical—outside the constraints of international agreements. While Washington officials doubtless continued to hold “late-use” assumptions, veiled threats during confrontations with China in 1996 and Iraq in 1998 suggested continued reliance on nuclear weapons as instruments of policy.

That the Cold War had ended without a nuclear cataclysm led analysts and historians to explore the relationship between deterrence and the resolution of great power conflict. Some argued that U.S. nuclear strategy and forces had deterred superpower war and would remain indispensable for preventing future confrontations with other adversaries. Others looked at the massive expenditure on nuclear weapons and questioned whether deterrence needed to be so expensive. Moreover, some former military leaders, arguing that deterrence involved unacceptable risks, proposed renewed efforts to abolish nuclear weapons altogether.

[See also Civil Defense; Dulles, John Foster; Hiroshima and Nagasaki, Atomic Bombing of; Nuclear Arms Control Treaties; Post-Cold War Era.]

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