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# THE AIR FORCE

# AND THE COLD WAR



***AN AIR FORCE ASSOCIATION SPECIAL REPORT***

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# THE AIR FORCE AND THE COLD WAR

By John T. Correll

After 20 years of service in the US Air Force, John T. Correll joined the staff of *Air Force Magazine*, journal of the Air Force Association, in 1982. He was editor in chief from 1984 to 2002. He continues to study and write about national defense and air and space power.

AN AIR FORCE ASSOCIATION SPECIAL REPORT  
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# 1

## Iron Curtain

The interval of peace that followed World War II was short.

As soon as the fighting ended, the United States began discharging troops at the rate of 100,000 a week. Between August 1945 and June 1946, the Army Air Forces deactivated 68,000 airplanes. Most of them were cut up for scrap.

Some forces remained overseas, but that was understood to be a temporary arrangement. US occupation forces expected to be out of Germany in two years.

Postwar plans had not counted on a challenge from our wartime ally, the Soviet Union. The Red Army was on the Elbe, in possession of Eastern Europe and much of Germany. Never before in their history had the Russians held a position of such opportunity.

At Yalta in February 1945, Russian dictator Joseph Stalin promised freedom for the nations of liberated Europe. In reality, the Russians had no intention of going home. Their plan was to convert the territory they had overrun into a buffer zone to shield the Soviet Union from invasion.

The Russians consolidated their control in the east and pressed for new advantages in Central Europe.

In a speech at Fulton, Mo., in 1946 Britain's wartime leader, Winston Churchill, declared, "From Stettin in the Baltic to Trieste in the Adriatic, an iron curtain has descended across the Continent."

The only nation strong enough to contend with the Soviet Union was the United States. US forces would not be going home after all.

The Cold War<sup>1</sup> and the US Air Force got under way at about the same time. Over the next 40 years, they had a strong effect on each other. The Air Force was shaped by Cold War requirements. Cold War strategy evolved largely on the

basis of what the Air Force's capabilities made possible.

The atomic bomb was central to military power in the Cold War. It was inherently an air weapon. The Air Force, which did not become a separate service until September 1947, stood first in the nation's defense. That overturned traditional service roles and missions and generated a backlash from the Army and the Navy.

The consolidated Department of Defense—like the Air Force, created in 1947—struggled to find solutions to a global threat that, until recently, had not even been imagined.

President Harry Truman wanted to cut military spending, pay down the wartime deficit, and give long-overdue attention to the nation's domestic needs. The Cold War changed his priorities.

### Containment

In 1946 and 1947, the Russians installed Communist client regimes in Bulgaria, Hungary, Poland, and Romania. It was only after repeated US insistence that the Soviets withdrew their troops from Iran, and they attempted to gain a share of control over the Dardanelles Strait in Turkey.

In his famous "Long Telegram" of 1946, George Kennan, then in charge of the US embassy in Moscow, warned that the Soviet Union did not want peaceful coexistence and was committed to a "patient but deadly struggle for total destruction of rival power."<sup>2</sup>

Kennan's telegram got considerable attention within the government. A year later, he repackaged his analysis in an article for *Foreign Affairs* for July 1947. It was signed with an anonymous "X," but it was an open secret that Kennan wrote it. This article formulated the concept of "Containment."

<sup>1</sup> The term "Cold War" was first used in a speech by senior statesman Bernard Baruch and was popularized by columnist Walter Lippman.

<sup>2</sup> George Kennan, 19-page telegram to the Secretary of State, Feb. 22, 1946.

"It is clear that the main element of any United States policy toward the Soviet Union must be that of long-term, patient but firm and vigilant containment of Russian expansive tendencies," Kennan said. The United States should "confront the Russians with unalterable counterforce at every point where they show signs of encroaching upon the interests of a peaceful and stable world."<sup>3</sup>

If the Soviets appeared to be cooperating with US values, he said, it should be "regarded as a tactical maneuver permissible in dealing with the enemy."

Kennan's article—like Churchill's Iron Curtain speech—drew fire from American leftists and from some in the mainstream news media. They thought Churchill and Kennan were too tough on the Soviet Union. Stalin's wartime popularity did not fade away quickly.

When Communist insurgents threatened the governments in Greece and Turkey, the United States responded with aid and the "Truman Doctrine."

"I believe that it must be the policy of the United States to support free people who are resisting attempted subjugation by armed minorities or by outside pressures," Truman said in 1947.<sup>4</sup>

The Marshall Plan—a proposal of Secretary of State George C. Marshall—sent large amounts of foreign aid to help the war-torn countries of Europe recover. Soviet client states were not allowed to participate. Soviet Foreign Minister Vyacheslav Molotov complained that the Marshall Plan would lead to the Americanization of Europe. In Italy and Turkey, local Communists obediently staged strikes and street demonstrations to support Soviet objections to the Marshall Plan.<sup>5</sup>

In February 1948, a Soviet-directed coup ousted the government in Czechoslovakia and replaced it with a client regime. Except for Berlin, the Soviet conquest of Eastern Europe was complete.

Containment became the basic doctrine of the Cold War, but the official version differed considerably from what Kennan had said. Kennan thought it relied too much on military power, and he did not like it.

## Berlin Airlift

The first big event of the Cold War was the Berlin Airlift in 1948.

Berlin lay 110 miles inside the part of Germany

held by the Russians, but the city itself was under four-power control. It was divided into American, British, French, and Soviet occupation zones.

Stalin feared the growth of American influence in Europe. He also disliked the attractive example that West Berlin was setting for its East German neighbors. If the Allies could be pushed out, Berlin could be incorporated into East Germany and Stalin could concentrate on getting the Americans out of Europe. He decided on a power play.

On June 24, the Russians cut off all road, rail, and river routes into West Berlin. However, three air corridors, each 20 miles wide, remained open. The Allies decided to sustain Berlin by air.

Today, the Berlin Airlift is remembered as a high point of US determination in the Cold War. It is forgotten that some officials in the State and Defense Departments were reluctant to pursue the airlift. In fact, several senior State Department people wanted to abandon the city altogether.<sup>6</sup>

The Air Force flew the first airlift missions on June 26 with locally available transports. British and US Navy aircraft joined the effort. At the peak of the airlift in 1949, one airplane landed in Berlin every four minutes. The Russians harassed the corridors, but did not risk open war by attacking the airlifters.

To underscore its commitment, the United States deployed B-29 bombers to the United Kingdom, within striking range of the Soviet Union. Although the Soviet Union (and the public) did not know it, the B-29s did not have any atomic bombs. The Atomic Energy Commission would not release them for overseas deployment.<sup>7</sup>

The airlift delivered enough food, fuel, and supplies for the West Berliners to make it through the crisis. Their plans foiled, the Russians lifted the blockade, and the Berlin Airlift ended Sept. 30, 1949, after 277,264 flights into the city.

Continuing Soviet aggressiveness led to two Western actions in 1949: the formation of the North Atlantic Treaty Organization and the creation of a West German state, the Federal Republic of Germany, consisting of the former occupation zones of the Western Allies.

Article 5 of the NATO treaty said, "The parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all." The security

<sup>3</sup> Kennan, "The Sources of Soviet Conduct," *Foreign Affairs*, July 1947.

<sup>4</sup> Harry S. Truman, Address to joint session of Congress, March 12, 1947.

<sup>5</sup> Martin Walker, *The Cold War*. Holt, 1994, p. 52-54.

<sup>6</sup> W.R. Smyser, *From Yalta to Berlin: The Cold War Struggle Over Germany*. St. Martin's, 1999, p. 81.

<sup>7</sup> *History of the Custody and Deployment of Nuclear Weapons, July 1945 Through September 1977*. Department of Defense, 1978, p. 10.

of Europe was connected to the extended protection of US nuclear power.

## Atomic Airpower

In the early years of the Cold War, the pre-eminent weapon was the heavy bomber. It was the only means of delivering nuclear weapons, which were central to US defense strategy. The bomber—and the Air Force—had become the nation's first line of defense.

The B-29 was the best of the heavy US bombers left over from World War II, but it had limited range. The solution was the B-36, the first bomber able to fly for intercontinental distances. It was an enormous airplane (162 feet long, compared to the B-29 at 99 feet) and powered by six piston engines and four turbojets ("six turning and four burning").

The Navy, accustomed to dominating the defense budget, orchestrated a no-holds-barred propaganda campaign against the B-36. The objective was to seize the strategic power projection mission for the proposed Navy supercarrier, *United States*. The attack failed, partly because of the weakness of the Navy's argument and partly because of the underhanded tactics with which the campaign was waged.

Until the Air Force fielded jet bombers in the 1950s, the B-36 was the primary platform for delivery of the atomic bomb.

In 1949, the Air Force demonstrated another important Cold War capability when a B-50 bomber, *Lucky Lady II*, took off from its base in

Texas, refueled in the air four times, and flew nonstop around the world before landing again at its home base. With air refueling, US bombers could project power to the most distant reaches of the Earth.

The nuclear weapons of the 1940s were huge, crude city busters that weighed five tons. There were not many of them. Truman was amazed to learn in 1947 that the nation had only 13 bombs. None of them were assembled and ready, and teams to assemble them were not immediately available.<sup>8</sup>

Still, the atomic bomb was awesome. Nuclear forces cost less than conventional forces, and even a few bombs had an undeniable deterrent effect.

"It is certain that Europe would have been communized like Czechoslovakia and London under bombardment some time ago but for the deterrent of the atomic bombs in the hands of the United States," Churchill said in 1949.<sup>9</sup>

The United States lost its monopoly on nuclear weapons when the Russians exploded an atomic bomb Aug. 29, 1949, earlier than had been expected. The first Soviet bomb was an exact copy of the "Fat Man" device dropped on Nagasaki,<sup>10</sup> not surprising since the plans had been obtained years earlier by espionage at Los Alamos, N.M.

The means for delivering the Soviet bomb was the Tu-4 Bull bomber, reverse-engineered from American B-29s interned in the Soviet Union during World War II. The Tu-4 could reach targets in the United States on one-way missions.

<sup>8</sup> *History of the Custody and Deployment of Nuclear Weapons*, p. 12.

<sup>9</sup> Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907-1984*. Air University Press, 1989, Vol. 1, p. 237.

<sup>10</sup> Thomas C. Reed, *At the Abyss: An Insider's History of the Cold War*. Ballantine, 2004, p. 22.

# Massive Retaliation



In the summer of 1949, Truman had not yet decided whether to proceed with developing the hydrogen bomb. His thinking was influenced by the Russian atomic test in August, followed in October by the takeover of China by Mao Zedong and the Communists.

On Jan. 31, 1950, Truman ordered development of the hydrogen bomb. He also asked the State and Defense Departments for a basic review of defense policy and strategy.

The strategy report—NSC-68, completed April 14, 1950—was a blockbuster. It was the product of a joint working group from State and Defense, and the author was Paul Nitze, who had succeeded George Kennan as director of the State Department's Policy Planning Staff.

NSC-68, which has been called the blueprint for the Cold War, said the Soviet Union wanted "to impose its absolute authority over the rest of the world." It said the Russians and their satellites had the capability to overrun most of Western Europe, launch air strikes against the British Isles, and strike selected targets, including some in the United States, with atomic weapons.

"It is clear that a substantial and rapid building up of strength in the free world is necessary to support a firm policy intended to check and to roll back the Kremlin's drive for domination," NSC-68 said.

The paper said the USSR might have as many as 200 atomic bombs by 1954 and that the Soviet Union was spending almost twice as much as the United States on its armed forces.

NSC-68 did not address cost, but the National Security Council estimated that rearmament would cost about \$50 billion a year, compared to the \$13 billion that was projected for Fiscal Year 1951.<sup>11</sup>

It was still unapproved on the eve of the Korean War. Probably, had the war not come along, the rearmament program would have been regarded as unaffordable. Secretary of State Dean

Acheson, an advocate of NSC-68, said, "Korea saved us."<sup>12</sup>

Four supplemental appropriations raised the FY 1951 defense budget to \$48.182 billion.<sup>13</sup> In December 1950, Truman approved NSC-68/3 as a "working guide."

Rearmament of the United States was under way.

## War in Korea

The Cold War took on a new dimension June 25, 1950, when North Korea invaded South Korea. Truman believed it was the beginning of a worldwide Communist offensive and decided to take a stand.

It is unlikely that Stalin ordered the attack, although he almost certainly had approved it and perhaps even encouraged it. Misreading the cues, he did not believe the United States would respond as it did.

The US-led intervention was under the auspices of the United Nations. In normal circumstances, the Russians would have vetoed UN action in the Security Council. However, they were absent when the vote was taken. They were boycotting the council meetings because the Chinese seat was still occupied by Nationalist China.

North Korea was close to defeat when Communist China entered the war with 250,000 troops in October 1950 and drove the US and UN forces back. The Soviet Union did not openly join in the fighting, but it supplied MiG-15 fighters and other support for the Communist side.

Covertly, the Russians also sent pilots and support troops. They later said that about 200 Russian pilots had been killed in Korea and that some 70,000 personnel from air force interceptor units had also been there.<sup>14</sup>

Truman said the United States would use the atomic bomb in Korea "if necessary," but that did not happen. Only conventional air forces were employed, largely in support of the ground oper-

<sup>11</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 289.

<sup>12</sup> Walker, *The Cold War*, p. 77.

<sup>13</sup> Doris Condit, *The Test of War, 1950-1953*. Historical Office of the Secretary of Defense, 1988, p. 240-244.

<sup>14</sup> Walker, *The Cold War*, p. 76; Steven Zaloga, "The Russians in MiG Alley," *Air Force Magazine*, February 1991.

ation, and the war wound up with an armistice in July 1953.

The Defense Department regarded Korea as an anomaly. "We will refuse absolutely to allow local wars to divert us from our central task," Gen. Omar Bradley, Chairman of the Joint Chiefs of Staff, said in October 1950. "They must not be allowed to consume so much of our manpower as to destroy our strength and imperil our victory in world war."<sup>15</sup>

In 1955, Thomas K. Finletter, who had been Secretary of the Air Force during the conflict, said, "The Korean War was a special case and airpower can learn little there about its future role in United States foreign policy in the east."<sup>16</sup>

### The "New Look"

The new President, Dwight Eisenhower, wanted to balance the federal budget and reduce taxes. In June 1953, he called for a "new, fresh survey of our military capabilities," partly to see if adequate security was possible at lower cost.

Several months later, the Joint Chiefs of Staff sent a concept plan to the National Security Council, suggesting that overseas forces be thinned out and great reliance put on airpower, especially strategic airpower, and nuclear weapons.<sup>17</sup>

This led to the so-called "New Look" strategy, NSC-162/2, in October 1953. It said, "The risk of Soviet aggression will be minimized by maintaining a strong security posture, with emphasis on adequate offensive retaliatory strength and defensive strength. This must be based on massive atomic capability, including necessary bases; an integrated an effective continental defense system; ready forces of the United States and its allies suitably deployed ... and an adequate mobilization base."

It also said, "In the event of hostilities, the United States will consider nuclear weapons to be as available for use as other munitions."

Eisenhower disclosed the gist of NSC-162/2 to the nation in his State of the Union address in January 1954.

"We and our allies have and will maintain a massive capability to strike back," he said. Referring to nuclear weapons, he said, "The usefulness of these new weapons creates new relationships between men and materials. These new relationships permit economies in the use of men as we build forces suited to our situation in the world today. As will be seen from the budget message

on January 21, the airpower of our Navy and Air Force is receiving heavy emphasis."

Members of the Cabinet elaborated on the theme. Secretary of Defense Charles E. Wilson talked about a "bigger bang for the buck."

In a speech that would go down in history as a call for "Massive Retaliation," Secretary of State John Foster Dulles said the United States and its allies would place "more reliance on deterrent power and less dependence on local defensive power." He said also that containment of the Communist world would require "the further deterrent of massive retaliatory power."<sup>18</sup>

Dulles did not utter the words "massive retaliation" in his speech. Nor, as Air Force historian Frank Futrell has noted, did either Eisenhower or Dulles ever define Massive Retaliation exactly.<sup>19</sup> Nevertheless, Dulles and others used the term themselves, and it was understood to be the general basis for both US and NATO defense policy.

Whether the United States actually would have responded with Massive Retaliation to anything less than an all-out nuclear attack on the United States itself was never put to the test.

The Air Force in the 1950s was more discriminating in its targeting than strict adherence of Massive Retaliation would have implied. Strategic Air Command's first priority was the enemy's atomic capability; second priority was counterair strikes to retard the advance of Soviet ground forces; third priority was destruction of the enemy's war sustaining resources.<sup>20</sup>

Furthermore, despite the rhetoric in NSC-68 about "rolling back" the Soviet advancement, the United States did not conduct operations to achieve such an objective, continuing instead to follow the course of Containment.

### NATO and the Pact

NATO made an early decision to rely on nuclear weapons because it saw no possibility of matching the strength of Soviet bloc conventional forces in Europe.

In 1950, NATO had 14 divisions and 1,000 aircraft. The Russians had 175 divisions, 30 of them in Europe, and 6,000 aircraft based forward. The Soviet client states added about 60 more divisions, but they were of uncertain quality.

At a conference in Lisbon in 1952, NATO determined that a conventional defense of Europe would require 90 ground divisions and 10,000 aircraft. Regarding this goal as unattainable,

<sup>15</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 419.

<sup>16</sup> Johnny R. Jones, "Development of Air Force Basic Doctrine, 1947-1992," Air University Press, 1997, p. 4.

<sup>17</sup> Richard M. Leighton, *Strategy, Money, and the New Look, 1953-1956*. Historical Office of the Secretary of Defense, 2001, p. 158.

<sup>18</sup> John Foster Dulles, speech to Council on Foreign Relations, Jan. 12, 1954.

<sup>19</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 609.

<sup>20</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 436-437.

NATO in December 1952 adopted a strategy—MC-14/1—that included nuclear weapons in the defense of Europe.<sup>21</sup>

The allied forces based in Europe functioned as a tripwire. They would attempt to repel an attack, but their ultimate role was to trigger a response by US strategic nuclear forces under Article 5 of the NATO treaty. In 1957, NATO adopted a revised strategy, MC-14/2, formally aligning itself with the doctrine of Massive Retaliation.

NATO's strong right arm was US Air Forces in Europe. The F-84G, deploying to Britain in 1952, employed the Mark VII, the first atomic bomb small enough to be carried by a fighter. In 1955, USAFE flew combat aircraft from 22 bases in Europe. About 200 of these aircraft were capable of delivering nuclear as well as conventional weapons.<sup>22</sup>

The Soviet Union and its client states joined into a formal alliance, the Warsaw Pact, May 1, 1955. Four days later, a rearmed West Germany became a member of NATO.

The Russians were fielding new bombers fast-

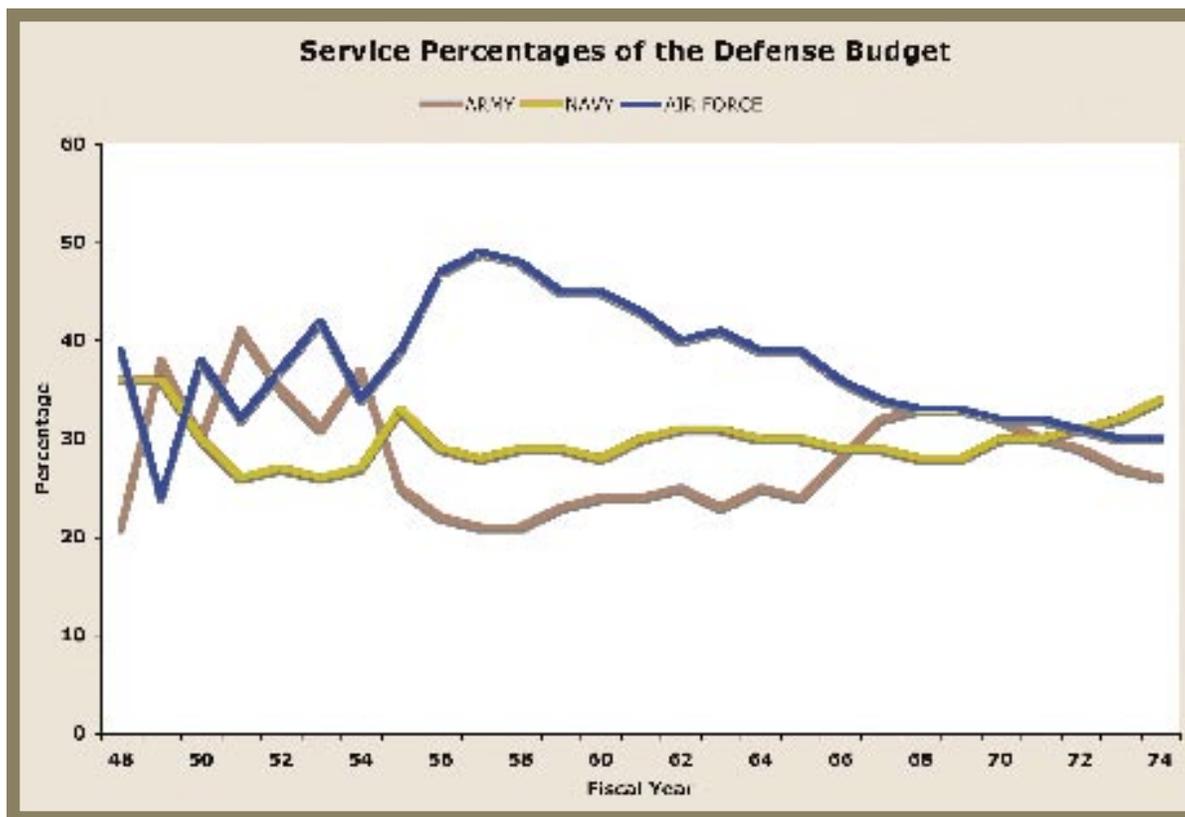
er than US intelligence had anticipated. They displayed the M-4 Bison, the Tu-16 Badger, and the Tu-95 Bear at May Day events in Moscow in 1954 and 1955. Bisons and Badgers appeared to be in rapid production. The best of the new bombers was the Bear, a turboprop with very long range and endurance and with a speed almost as fast as that of a turbojet.

The Communist world now encompassed the Soviet Union, Eastern Europe, mainland China, and North Korea, with outposts and rumblings elsewhere. However, it was not as monolithic as it looked.

After Stalin died, Mao Zedong thought he should be recognized as the leader of world Communism and was offended when the Russians did not accord him that honor and authority. Mao also believed the Russians who followed Stalin were watering down the purity of Marxism-Leninism. The Sino-Soviet rift had begun. It would widen over the decade to come.

<sup>21</sup> Condit, *The Test of War*, p. 312.

<sup>22</sup> Richard P. Hallion, "The USAF and NATO," April 15, 1999"; Walton S. Moody and Warren A. Trest, "Containing Communism" in Bernard C. Nalty, ed., *Winged Shield, Winged Sword*, US Air Force, 1997, Vol. 2, p. 133-135.



*In the era of Massive Retaliation, the Air Force—which had the lead role in strategic nuclear deterrence—was allotted a larger share of the defense budget. This pattern continued until the late 1960s. After that, there was less difference in service percentages of the budget. (Percentages shown here do not include a small portion held back for use by the Defense Department.)*

The Soviet empire in Europe was unsettled as well. In October 1956, the Hungarians rebelled against the Soviet-controlled government. Rus-

sian troops were required to put down the uprising, and between 25,000 and 50,000 Hungarians were killed before it was over.

# 3

## Strategic Force

“By the early fall of 1949, development of the ‘super’—the thermonuclear or hydrogen—bomb had progressed almost to the point where we were almost ready to put our theories into practice,” Truman said in his memoirs. “I believed that anything that would assure us the lead in the field of atomic energy development for defense had to be tried out.”<sup>23</sup>

In 1950, Truman authorized the hydrogen bomb to go forward, leading to the first test of a thermonuclear device on Oct. 31, 1952. The Soviet Union exploded a hydrogen bomb in August 1953, well ahead of US expectations.

The controversy about the decision to acquire the hydrogen bomb has endured for 50 years. Among other criticisms, the United States has been accused of inducing the Soviets to follow suit and develop their own bomb. In the 1990s, however, Russian sources disclosed that the Soviet Union had started work on a hydrogen bomb in 1948, long before Truman made his decision.<sup>24</sup>

By 1952, atomic bombs were small enough and light enough for use by fighters. The hydrogen bomb became the primary armament for strategic bombers.

In the first years of the Cold War, the Atomic Energy Commission was responsible for developing, producing, and storing nuclear weapons. Truman and Eisenhower transferred some atomic bombs to the Air Force, but the AEC kept cus-

tody of most of them. The AEC wanted to dole them out as it saw fit and (supported by the State Department) expected to participate in any decision to use them. It was not until 1959 that the Department of Defense obtained full custody of nuclear weapons.<sup>25</sup>

### SAC and ADC

The emphasis in Air Force doctrine was on strategic nuclear operations. Everything else was a “lesser included contingency.” Strategic Air Command was at the center of the Air Force and of US defense strategy.

SAC had been formed in 1946, but it was under the legendary Gen. Curtis E. LeMay, who took command in 1948, that it became the most famous fighting force in the world.

The coming importance of ICBMs was seen, but until the missiles were available, the long-range bomber was still prime. The B-36 was gradually replaced by jet bombers, first by the B-47 and then the B-52. The B-47 was produced in greater numbers than any other postwar bomber, but in the B-52, the Air Force gained the heavy bomber with which it would go the distance in the Cold War.

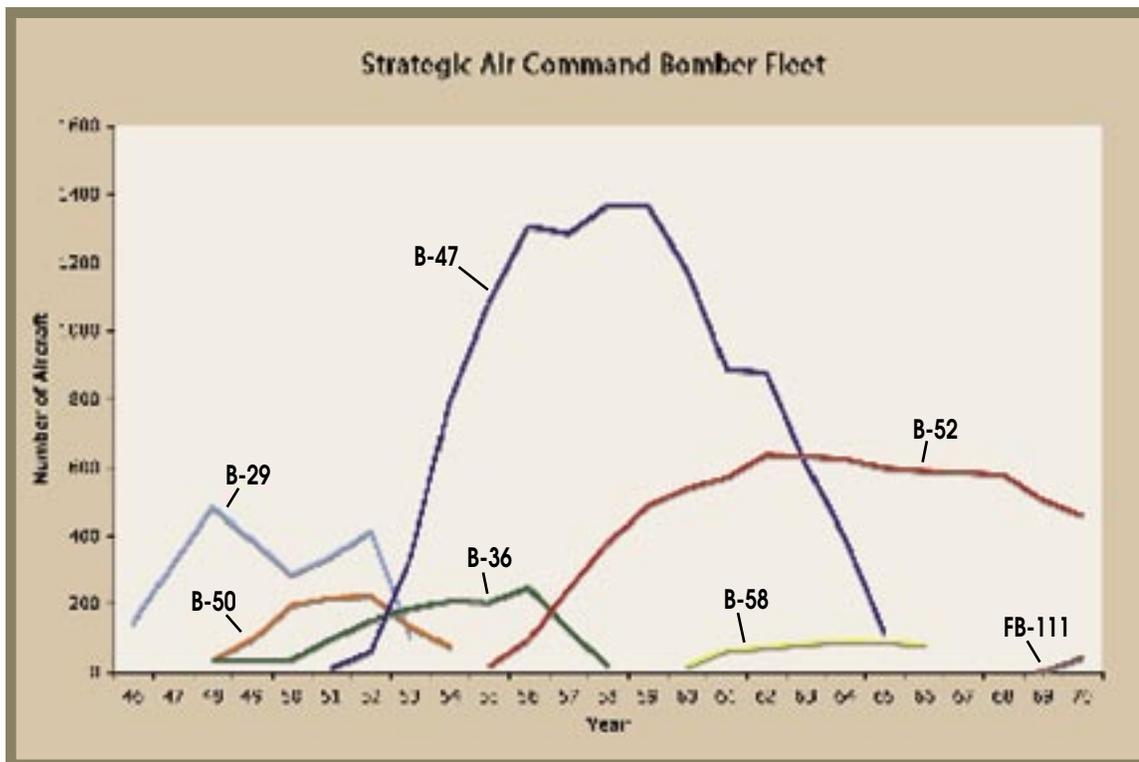
Between 1953 and 1961, the overall military strength of the Air Force declined, but SAC strength rose by 60 percent. Almost a third of the people in the Air Force were in SAC.

To Americans in the 1950s, the threat of a

<sup>23</sup> Truman, *Years of Trial and Hope, 1946-52: Memoirs of Harry S. Truman*, Vol. 2, Doubleday, 1956, p. 308.

<sup>24</sup> Reed, *At the Abyss*, p. 110.

<sup>25</sup> Condit, *The Test of War*, p. 456-67; *History of the Custody and Deployment of Nuclear Weapons*.



Source: <http://www.strategic-air-command.com>

nuclear attack seemed real and immediate. Citizens built fallout shelters in their backyards, and Ground Observer Corps volunteers watched the sky with binoculars.

Air Defense Command, which had been merged with Tactical Air Command into the Continental Air Command in postwar budget cuts, was restored to its full former status in June 1951. It underwent a rapid buildup as the threat deepened with the Russians fielding long-range bombers and thermonuclear weapons.

ADC aircrews stood alert in improved interceptors, and an extensive system to detect approaching bombers was built. The Pinetree Line of radars across southern Canada was completed in 1955. In 1957, Canada joined the United States in forming the North American Air Defense Command. The Distant Early Warning Line, a string of radars across the Arctic from Alaska to Greenland, went operational in 1958.

In 1956, the Department of Defense revealed the existence of the Semi-Automatic Ground Environment, or SAGE, system of electronic centers that received and analyzed early warning information and served as command posts for the air defense network.

## Global Power

The nation also maintained a capability to project power, especially airpower, worldwide. One instrument for doing this was the Composite Air Strike Force, formed by Tactical Air Command in 1955. It could deploy rapidly to places not within reach of regular forces stationed abroad. It consisted of fighters, tankers, support aircraft, and a command element.

"As SAC is a deterrent to major war, so will the Composite Air Strike Force be a deterrent to limited war," Brig. Gen. Henry P. Viccellio, commander of 19th Air Force, said.<sup>26</sup>

The first CASF deployment was in July 1958 to prevent the overthrow of the government in Lebanon. Three hours after notice to go, B-57 bombers were on the way, followed in another three hours by the rest of the force. A month later, a second CASF went to the Far East where Red China was putting pressure on the Nationalist Chinese island of Quemoy. The CASF was part of the counterpressure.<sup>27</sup>

Airlift and tankers were required for the mobility of the force, but repeatedly during the Cold War—beginning with the Berlin blockade—airlifters performed missions that produced opera-

<sup>26</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 450.

<sup>27</sup> Richard G. Davis, *Anatomy of a Reform: The Expeditionary Aerospace Force*. USAF, 2003, p. 4-7.

tional or diplomatic results on their own. One such mission took place in August 1952 when more than 3,700 Muslim pilgrims were stranded en route to Mecca because of insufficient commercial transport. The Air Force picked them up in Beirut and took them the rest of the way on their pilgrimage.<sup>28</sup>

Neither of the superpowers had timely information about the other's strategic forces, which added to the level of apprehension and risk. To ease this situation, President Eisenhower in 1955 proposed an "open skies" treaty that would allow each side to make reconnaissance overflights of the military installations of the other. The Russians refused.

The United States, desperate for strategic intelligence, stepped up surveillance flights that skirted the periphery of the Soviet Union—and sometimes went beyond the periphery. Until reconnaissance satellites were operational in the 1960s, the intelligence was collected by high-flying airplanes. Foremost among them was the U-2, flown by the CIA and the Air Force from the mid-1950s on.

## ICBMs

The Intercontinental Ballistic Missile fundamentally changed the threat and the character of the Cold War. An ICBM could travel thousands of miles and deliver a warhead on target within minutes. There was no defense against it. The United States was wide open to instant nuclear attack.

The potential of guided missiles had been demonstrated by German V-2 rockets in World War II. The Air Force took interest, as did the Army (which regarded missiles as a form of artillery). An early Air Force ballistic missile program was canceled in

postwar budget cuts in 1947. The program was reinstated in the 1950s and went on to produce Atlas, the first US ICBM.

The Department of Defense resolved the roles and missions issue in 1956, assigning the Air Force responsibility for developing and operating land-based ICBMs.

In August 1957, the Soviet Union launched the world's first ICBM and, two months later, used the same kind of rocket to put the Sputnik satellite into orbit. The US Atlas was launched in December, but the psychological effect of the Russian achievements was overwhelming.

The perception of a "missile gap" became a leading political issue and carried forward into the 1960 presidential elections. The missile gap was later shown to be in favor of the United States. However, in 1957 and earlier, the Soviets may have been ahead but unable to sustain and exploit their lead.

Gen. Bernard A. Schriever, who led the effort to field the US ICBM, thought so. "There is little doubt in my mind that we started behind the Soviets in the ballistic missile program," he said in 1964. "Of course, neither country had a missile, but they had started well ahead of us, and it was the combined efforts of science and industry and the military that brought about almost a miraculous program."<sup>29</sup>

At SAC, LeMay agreed that the ICBM would be "the ultimate weapon in the strategic inventory," but he did not believe it would completely replace the manned bomber anytime soon.<sup>30</sup>

The Atlas ICBM reached initial operational capability in 1959. By the end of the 1960s, the US had fielded a formidable array of second generation ICBMs, with 54 Titan II and 1,000 Minuteman missiles.

<sup>28</sup> Alfred Goldberg, ed., *A History of the United States Air Force, 1907-1957*. Van Nostrand/AFA, 1957, p. 152.

<sup>29</sup> John F. Loosbrock, "A Look Back—A Look Ahead," *Air Force Magazine*, May 1964.

<sup>30</sup> Jacob Neufeld. *The Development of Ballistic Missiles in the United States Air Force, 1945-1960*. USAF, 1990, p. 142; Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 510.

# Nuclear Strategies and Concepts

# 4

Nikita Khrushchev, who eventually replaced Stalin, inflamed the tension of the Cold War by his compulsion to threaten, bluster, and make claims that had no basis in fact.

“Whether you like it or not, history is on our side,” Khrushchev said in 1956. “We will bury you.” Exactly what he meant by that can be—and has been—debated, but his tendency to make bombastic threats is beyond dispute.

His braggadocio supported the credibility of a “missile gap.”

“I think I will not be revealing any military secret if I tell you that we now have all the rockets we need: long-range rockets, intermediate-range rockets, and close-range rockets,” he said in 1957. In 1958, he claimed to have ICBMs in “serial production.”

In 1959, Khrushchev told the press that one Soviet plant had produced 250 missiles with hydrogen warheads in one year. He said the Soviet Union was turning out missiles “like sausages.”<sup>31</sup>

Eisenhower tried to refute the notion of a missile gap, but the story would not go away. The truth was finally exposed when Corona, the Air Force photoreconnaissance satellite, brought back its pictures. Khrushchev had approximately six ICBMs, not scores or hundreds of them.<sup>32</sup>

## Counterforce and Countervalue

As nuclear weapons evolved—becoming smaller, more powerful, and deliverable with greater accuracy—options in how to employ them emerged.

There were two basic concepts, initially known as “Counterforce” and “Countercity.”<sup>33</sup> Counterforce targeted military forces, installations, and assets. Countercity strikes—later called “Countervalue” or “Finite Deterrence”—aimed at the enemy’s economy and population. Counterforce strategy required a more capable force, and it cost more.

In the 1960s and 1970s, Counterforce and Countervalue would come to represent the opposite poles in the controversy about “Mutual Assured Destruction,” but in the 1950s, they had not yet taken on their full political trappings.

The Air Force advocated Counterforce. “It makes a great difference whether victory is sought by the depopulation of a nation or by the disarming of a nation,” Gen. Nathan F. Twining, Air Force Chief of Staff, said in a speech in February 1954. “We can now aim directly to disarm an enemy rather than to destroy him as was so often necessary in wars of the past.”<sup>34</sup>

The Army and (increasingly over next few years) the Navy were more inclined toward Countercity targeting.

Secretary of Defense Charles Wilson subscribed to a third approach. Believing that “everybody is going to lose in the next war,” Wilson argued that the best objective was to seek a stalemate. That position, too, would be reprised in later years when it would be known as “Essential Equivalence.”

When Gen. Maxwell Taylor became Army Chief of Staff in 1955, he called for “Flexible Response,” with less emphasis on strategic airpower and more emphasis on conventional ground forces. Taylor’s claim that the US had 10 times more atomic weapons than it needed became known as “overkill.”<sup>35</sup>

Taylor presented his case for a flexible response strategy to National Security Council in January 1958, but did not get much support. US policy continued to rely heavily on airpower and nuclear weapons for both general and limited conflict. The Air Force view was that a force built for the worst case would also be suitable for lesser conflicts and contingencies. The Department of Defense agreed.<sup>36</sup>

Disgruntled, Taylor retired and wrote a book, *The Uncertain Trumpet*. It was laden with complaints about the Air Force and about the Army’s

<sup>31</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 4; Neufeld, *The Development of Ballistic Missiles*, p. 190; Walker, *The Cold War*, p. 132; Reed, *At the Abyss*, p. 95.

<sup>32</sup> Dwayne A. Day, John M. Logsdon, and Brian Latell, ed. *Eye in the Sky: The Story of the Corona Spy Satellites*. Smithsonian, 1999, p. 25.

<sup>33</sup> Robert J. Watson. *Into the Missile Age*. Historical Office of the Secretary of Defense, 1997, p. 474.

<sup>34</sup> T.F. Walkowicz, “Counter-Force Strategy,” *Air Force Magazine*, February 1955.

<sup>35</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 452-467, 607-619.

<sup>36</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 618.

reduced share of the defense budget. In one astounding passage, Taylor said with disdain that “the Air Force sees our principal danger in the growing strategic air and missile forces of the Soviet Union.”<sup>37</sup>

Taylor said the requirement for strategic retaliatory force could be met by “a few hundred reliable and accurate missiles, supplemented by a decreasing number of bombers.”

The Eisenhower strategy also came in for a share of Taylor’s invective. “The New Look was little more than the old airpower dogma set forth in Madison Avenue trappings,” he said.

Taylor’s book was read with approval by Sen. John F. Kennedy, the Democratic candidate for President and a fellow critic of Eisenhower’s defense program. After Kennedy was elected, he recalled Taylor to active duty and made him Chairman of the Joint Chiefs of Staff.

In 1959, the Navy tried again to grab the strategic deterrence mission, but was no more successful than it had been in its attempt to kill the B-36 bomber a decade earlier.

The Navy advocated a strategy of minimum deterrence (later called Finite Deterrence) and supported Maxwell Taylor’s argument that “overkill” was not necessary. The United States, it said, had more retaliatory power than it needed. The capability to destroy 100 to 200 Soviet population centers was enough. The Navy argued that the entire deterrent force could be put at sea and that 45 Polaris submarines would “come close” to the total deterrent required.<sup>38</sup>

In reacting to the Navy’s proposal, the Department of Defense did not make a clear-cut choice between Counterforce and Finite Deterrence.

What happened instead was that, in August 1960, Secretary of Defense Thomas S. Gates created the Joint Strategic Target Planning Staff to control the targeting of both Air Force and Navy strategic weapons. The suggestion had come from the commander in chief of Strategic Air Command, Gen. Thomas S. Power, who became the first JSTPS director.

The Chief of Naval Operations, Adm. Arleigh Burke, objected, but Eisenhower backed up Gates. (Sidelight of interest: In 1949, Arleigh Burke, then a captain, had been head of the special Navy team that attacked the B-36.)

## Missiles and Bombers

The siren song of minimum deterrence appealed to economizers. Eisenhower’s budget director, Maurice Stans, was so impressed with the 45-submarine notion that he asked whether the nation could not now dispense with bombers and ICBMs.<sup>39</sup>

In actuality, the weapon gathering the most momentum was the ICBM. In January 1960, Khrushchev announced that the USSR would depend on ballistic missiles and stop building bombers. In November 1960, the Soviets established the Strategic Rocket Forces as a separate military branch, co-equal with ground, air, air defense, and naval forces.

Kennedy’s Secretary of Defense, Robert S. Mc-

<sup>37</sup> Gen. Maxwell D. Taylor. *The Uncertain Trumpet*. Harper & Brothers, 1959, p. 103.

<sup>38</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 1, p. 619, 626.

<sup>39</sup> Walton S. Moody, Jacob Neufeld, and R. Cargill Hall, “The Emergence of the Strategic Air Command,” in Bernard S. Nalty, ed. *Winged Shield, Winged Sword*. USAF, 1997, p. 89.

### Nuclear Strategies and Concepts

- ❑ **Mutual Assured Destruction.** Strategy in which both sides have the capability to survive a nuclear attack with enough surviving forces to destroy the enemy as a viable society.
- ❑ **Counterforce.** Strategy and targeting doctrine that emphasizes strikes on the enemy’s military forces and supporting infrastructure rather than cities and civilian industry.
- ❑ **Countervalue.** Targeting doctrine, associated with Assured Destruction, that emphasizes strikes against the enemy’s population and industrial centers.
- ❑ **First Strike.** Capability to deliver a knockout punch, leaving the enemy without capability to strike back, with a surprise pre-emptive attack.
- ❑ **Second Strike.** Capability to ride out the initial enemy attack and strike back.

Namara, also looked with favor on ICBMs, but thought it best to keep bombers as a hedge. "I think the evidence points to a declining emphasis on them [bombers], but I am not prepared personally at the present time to say for sure that they are on the way out," he said.<sup>40</sup>

Deputy Secretary of Defense Roswell L. Gilpatric, who left the Pentagon in January 1964, felt no such reluctance. In an article in *Foreign Affairs* in April 1964, he predicted that, by 1970, the makeup of US strategic retaliatory forces would be "a deterrent force, consisting only of hardened and dispersed land-based and sea-based missiles, with all of the vulnerable, earlier generation missiles deactivated and all manned bombers retired from active deployment."

After Khrushchev was deposed in 1964, the Russians went back to developing and producing bombers. And 40 years after Gilpatric's prediction, the United States was still flying manned bombers.

## Space

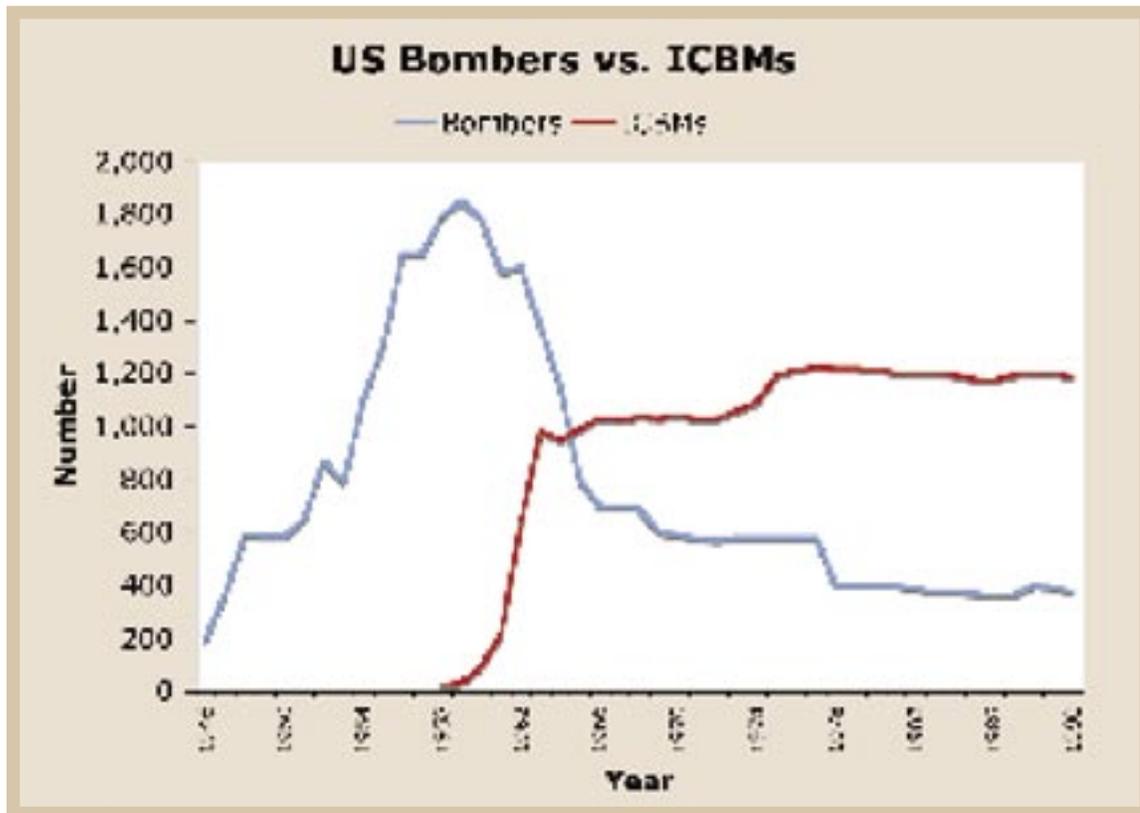
ICBMs and the space program emerged together. Space shots used some of the same launchers, including Atlas and Titan, that the missile force did. There was considerable overlap in technology.

In December 1959, Air Force Manual AFM 1-2, *United States Air Force Basic Doctrine*, recognized "aerospace" as an "operationally indivisible medium consisting of the total expanse beyond the Earth's surface." It also described the Air Force as "the primary aerospace arm of the United States."

The Air Force pursued the concept of "military man in space," but ultimately, the Cold War space missions were performed by unmanned systems. However, Air Force astronauts flew on space missions and on the space shuttle under the auspices of NASA.

In 1961, the National Reconnaissance Office was created to operate US intelligence satellites. The

<sup>40</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 28.



In 1964, the number of ICBMs on alert in SAC pulled even with the number of bombers on alert, then moved ahead and stayed ahead.

Source: Col. Mike Worden, USAF. *Rise of the Fighter Generals*, 1998, p. 124.

director was always a senior Air Force civilian official and often was the Secretary of the Air Force.

Air Force Space Command was formed in 1982. It viewed its top mission as missile launch detection and warning, although it also provided such other services as communications, navigation, and weather information.

The Air Force did not get clear title to space during the Cold War—in fact, it was not designated as executive agent for space until 10 years after the Cold War ended—even though the Air Force was providing most of the people and most of the money for the military space program.

## 5 High Noon

After the introduction of ICBMs, the nuclear confrontation continued with shortened fuzes on both sides. The situation was considerably more volatile than it had been during the first years of the Cold War when the threat was from long-range bombers. Long-range missiles could strike in minutes.

Such was the level of concern that in July 1961, half of SAC's bombers and tankers were placed on 15-minute ground alert, reducing their vulnerability and holding them ready for action.<sup>41</sup>

It was a time of particular danger, notable for a series of incidents and showdowns that occurred from 1960 through 1962, culminating with the Cuban Missile Crisis.

U-2 reconnaissance aircraft had been overflying the USSR since 1956. Eisenhower approved the missions with reluctance. He concluded that a crucial need for information on the Soviet threat justified US airplanes entering Soviet airspace. The missile gap controversy created further pressure for current intelligence.<sup>42</sup>

In May 1960, an American U-2 was knocked out of the sky over Sverdlovsk by an SA-2 missile. The Russians recovered the pilot, the wreckage of the airplane, and the film from the cameras.

It was an international scandal and a great embarrassment for the United States. Eisenhower said there would be no more overflights. The U-2 incident was a crisis in itself, but it also helped set the stage for a more serious event in 1962.

■ The Soviet Union was not directly involved in the Bay of Pigs debacle in April 1961. That was between the United States and the newest Soviet client state, Cuba, which was regarded as an outpost for insurgency in the Western Hemisphere.

With bad planning and worse execution, the CIA recruited a force of Cuban exiles and mounted an invasion. Air support was pulled at the last minute, and the invasion foundered on the beaches.<sup>43</sup>

■ Emboldened by the success of Sputnik, Khrushchev instigated new demands. In 1958, he insisted that the Western powers give up their rights to Berlin and evacuate the city. The confrontation bubbled along until 1961.

Kennedy—whose advisors urged a conciliatory approach—was prepared to be more flexible on Berlin than the Eisenhower Administration had been. Khrushchev read Kennedy's willingness to negotiate as weakness.

Refugees were pouring out of East Germany at a rate of 20,000 to 30,000 a month. To stop the loss and the embarrassment, East German officials wanted to close the border with West Berlin. In August 1961, Khrushchev allowed them to begin building a barrier with the provision that work would stop if the West reacted strongly.<sup>44</sup>

The Berlin Wall—which became the most visible symbol of the Cold War—went up without objection from the United States. White House and State Department officials, unaware that their protest could have stopped construction of the wall, urged caution. Later on, Ken-

<sup>41</sup> J.C. Hopkins. *The Development of Strategic Air Command, 1946-1981*. SAC, 1982, p. 98.

<sup>42</sup> Gregory W. Pedlow and Donald Welzenbach. *The CIA and the U-2 Program, 1954-1974*. CIA, 1998, p. 161.

<sup>43</sup> Peter Wyden. *Bay of Pigs*. Simon & Schuster, 1979, p. 195-201.

<sup>44</sup> Smyser. *From Yalta to Berlin*, p. 154-175.

nedey would become a great champion of Berlin, but in this early period, he went along with his advisors.

The Russians and East Germans stepped up the challenge, threatening to shoot West Berliners who got within 100 meters of the wall. They harassed traffic on the autobahn and, in one instance, tried to capture a refugee in a Western enclave.

Kennedy sent Army Gen. Lucius D. Clay Jr., who had been commander in Berlin during the airlift in 1948 and 1949, to Berlin as his representative. Clay was made of sterner stuff than those who feared that standing up to the Soviets would lead to war. The confrontation peaked when Clay pulled 10 tanks up to Checkpoint Charlie as a show of force. Kennedy backed him up. After that, the crisis gradually lost its steam.

The next time Kennedy faced a challenge from Khrushchev, he would meet it with strength and determination.

## The Cuban Missile Crisis

Khrushchev's decision to put ballistic missiles in Cuba, 90 miles off the Florida Coast, was the closest the Cold War ever came to escalating into World War III.

"It was during my visit to Bulgaria [in April 1962] that I had the idea of installing missiles with nuclear warheads in Cuba without letting the United States find out they were there until it was too late to do anything about them," Khrushchev said in his memoirs.<sup>45</sup>

Various reasons have been suggested for Khrushchev's action, among them his resentment of the deployment on behalf of NATO of US Jupiter intermediate-range ballistic missiles to Turkey.

Khrushchev's main motive, however, was that he wanted to compensate for Russia's strategic disadvantage in long-range missiles. If he could get his missiles into Cuba before he was caught, it would be an instant adjustment to the strategic balance.

The missiles in question were SS-4s (range, 1,100 miles) and SS-5s (range, 2,200 miles). They

could hit any point in the United States except for the Pacific Northwest. Khrushchev might be short of ICBMs, but medium-range missiles in Cuba would reach the same targets that ICBMs could have from bases in the Soviet Union, and they could do it faster.

The first Russian missiles arrived in Cuba in September, midway through a five-week period when U-2s were not overflying the island. The State Department and the White House staff had been worried about another uproar, like the one in 1960, if air defenses in Cuba shot down a U-2, and so Washington suspended the overflights.

Unfortunately for Khrushchev, the flights resumed and, on Oct. 14, an Air Force U-2 found the missile sites under construction. The Russian plan was exposed. Strategic Air Command went on DEFCON (Defense Condition) 2, one step short of war. Tactical aircraft moved into Florida in position to attack.

On Oct. 22, Kennedy spoke to the nation on television, saying there was "unmistakable evidence" of Soviet missiles and bombers in Cuba. He announced a naval quarantine and said the US would "regard any nuclear missile launched from Cuba against any nation in the Western Hemisphere as an attack by the Soviet Union on the United States, requiring a full retaliatory response against the Soviet Union."

The crisis deepened Oct. 27 when a Russian surface-to-air missile crew exceeded its orders and shot down a U-2. The next day, Khrushchev announced that he would pull his missiles out of Cuba, and the crisis was over.

The messages sent back and forth by Kennedy and Khrushchev during the Cuban Missile Crisis took about six hours each way, 12 hours to send a message and get a response.

On Aug. 30, 1963, a teletype hotline between Washington and Moscow was activated. It was a secure, encrypted link, routed by landlines and ocean cable, and provided a way for Russian and American leaders to communicate quickly in an emergency.

<sup>45</sup> Nikita Khrushchev, *Khrushchev Remembers*. Little, Brown, 1970, p. 493.

# 6

## Flexible Response

Kennedy brought the Cuban Missile Crisis to an end with the threat of “a full retaliatory response” if a nuclear missile was fired from Cuba. It was a direct application of Massive Retaliation, and it worked. Ironically, the Kennedy Administration was already well along in the transition to a strategy of Flexible Response.

“Our strength may be tested at many levels,” Kennedy said in his 1962 State of the Union address. “We intend to have at all times the capacity to resist non-nuclear or limited attacks—as a complement to our nuclear capacity, not as a substitute. We have rejected any all-or-nothing posture which would leave no choice but inglorious retreat or unlimited retaliation.”

Kennedy’s interpretation of Flexible Response was broader than Maxwell Taylor’s. It had two aspects: more strategic nuclear options and a buildup of conventional forces.

Kennedy rejected the Single Integrated Operational Plan—the nuclear war plan for strategic forces—in effect when he took office. It called for firing nuclear weapons in a single flush in the event of a Soviet attack. A revision in April 1962 allowed more flexibility and emphasized counterforce targets. SIOP-63, several months later, provided for four options, with an all-out response not generated until the final option.<sup>46</sup>

Even so, Kennedy held to the position of Truman and Eisenhower that nuclear weapons were available for use in a range of circumstances.

“It should be our policy to use nuclear weapons wherever we felt it necessary to protect our forces and achieve our objectives,” Secretary of Defense McNamara said in testimony to the House Appropriations Committee in 1961.

In 1962, McNamara told Congress that “even in limited war situations, we should not preclude the use of tactical nuclear weapons, for no one

can foresee how such situations might develop. But the decision to employ tactical nuclear weapons in limited conflicts should not be forced upon us simply because we have no other means to cope with them.” Between 1961 and 1966, the number of nuclear weapons in Europe increased by 85 percent.<sup>47</sup>

(In 1983, McNamara flatly denied ever saying that nuclear weapons had any military use. Confronted with the evidence, he explained that he had not believed that nuclear weapons could be used but that he could not deviate in public from Administration policy.<sup>48</sup>)

Flexible Response brought a revival of general purpose forces. In the defense budget submitted in January 1962, the first priority was nuclear deterrent forces, including increases in Minuteman and Polaris missiles, but the famine was over for conventional forces. The Army was projected to grow to 16 divisions and the tactical Air Force to 24 wings.

The Air Force tactical fighter force bottomed out in 1961 at 16 wings. Kennedy’s projected increase was intended to support a 2.5-war strategy, with forces sufficient for an initial 90-day conventional defense of Western Europe, simultaneous defense against an all-out Chinese attack in Southeast Asia or Korea, and capability to meet a contingency elsewhere.<sup>49</sup>

Major increases in airlift and sealift were planned as well.

### Dominoes

The goal of containment was to impede the spread of Communism, which in the 1950s and 1960s was perceived as relentless. Indochina—as Southeast Asia was then called—was seen as a special target. In the “Domino Theory” in 1954, Eisenhower held that a Communist takeover in

<sup>46</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 26, 339; Watson, *Into the Missile Age*. Historical Office of the Secretary of Defense, 1997, p. 493-494.

<sup>47</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 30, 468.

<sup>48</sup> Deborah Shapley. *Promise and Power: The Life and Times of Robert McNamara*. Little, Brown, 1993, p. 123-125.

<sup>49</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 43, 467-468.

### Kennedy Plan for Conventional Forces, 1961-70

	61	62	63	64	65	66	67	68	69	70
<b>Army Divisions</b>	11	14	16	16	16	16	16	16	16	16
<b>USAF TFWs</b>	16	23	20	21	22	23	23	24	24	24

*President Kennedy's plan for Flexible Response included substantial growth in Army divisions and Air Force tactical fighter wings. This projection is from "Summary of Force Structure Changes," a DOD paper from 1964.*

any nation in Indochina would soon lead to a similar fate for the others.

"You have broader considerations that might follow what you would call the 'falling domino' principle," Eisenhower said. "You have a row of dominoes set up, you knock over the first one, and what will happen to the last one is the certainty that it will go over very quickly. So you could have a beginning of a disintegration that would have the most profound influences."<sup>50</sup>

Another aggressive Khrushchev speech added to the impression that Communism was on the march around the world. In January 1961, Khrushchev announced that the Soviet Union would support "wars of national liberation" waged by guerillas and insurgents in emerging nations.

As with his "We will bury you" speech, this one could be interpreted in various ways. Kennedy thought it was very important and circulated copies to top government officials.<sup>51</sup> Among the local wars supported by the Russians in the 1960s were the Communist insurgencies in Laos and Vietnam.

The White House adopted a counterinsurgency plan and put considerable emphasis on it. Soon, counterinsurgency briefing teams were trooping up and down the Air Force preaching the new gospel of "COIN."

National Security Action Memorandum 288 in March 1964 repeated and built on the Domino Theory as a basis for US involvement in Southeast Asia.

"We seek an independent non-Communist South Vietnam," it said. "Unless we can achieve this objective in South Vietnam, almost all of Southeast Asia will probably fall under Communist dominance (all of Vietnam, Laos, and Cambodia), accommodate to Communism so as to

remove effective US and anti-Communist influence (Burma), or fall under the domination of forces not now explicitly Communist but likely then to become so (Indonesia taking over Malaysia). Thailand might hold for a period with our help, but would be under grave pressure. Even the Philippines would become shaky, and the threat to India to the west, Australia and New Zealand to the south, and Taiwan, Korea, and Japan to the north and east would be greatly increased."<sup>52</sup>

However, Vietnam and other wars of national liberation were regarded as secondary in importance to the Cold War and took place in its shadow. In 1964, Air Force Chief of Staff LeMay said, "I point out that you cannot fight a limited war except under the umbrella of strategic superiority. For example, we would not have dared go into Lebanon ... without strategic superiority which kept the enemy air force off."<sup>53</sup>

## Vietnam

To keep the dominoes from falling in Southeast Asia, US forces went to war in Vietnam.

There were numerous similarities to the Korean War. Like Korea, Vietnam was a side issue to the Cold War. As in Korea, the Russians supplied and equipped the Communist side. Also as in Korea, Soviet troops took part in the combat. The first SA-2 surface-to-air missile battery to shoot down a US aircraft in Vietnam was manned by a Soviet crew.

Vietnam consumed American lives and treasure. Politicians in Washington were not willing to make a sufficient military commitment to win. The forces fighting the war were hampered by numerous operational restrictions and by prohibitions about where they could strike. The White House picked the bombing targets, one by one.

<sup>50</sup> Eisenhower, news conference, April 7, 1954.

<sup>51</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 63.

<sup>52</sup> NSAM 288, quoted in *The Pentagon Papers*, Gravel edition. Vol. 2. Beacon Press, 1971, p. 459.

<sup>53</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 48.

Every so often, the war was stopped to see if the enemy wanted to talk.

US leaders were worried that strong military measures might pull China or the Soviet Union fully into the war. Haiphong harbor was off limits to bombers lest they hit one of the Russian trawlers anchored there. Great effort was made to ensure that US aircraft did not stray into Chinese airspace.

Washington began looking for a way to pull

out of Vietnam in 1969, but it was not until 1973 that the last US combat forces were withdrawn.

It would be another 20 years before the armed forces recovered from the loss of public confidence and support they sustained in Vietnam. Furthermore, Vietnam became the accountant's benchmark for sizing and funding a force at war. It was often forgotten that in the 2.5-war strategy, Vietnam had been the half war.

# 7

## (Mutual) Assured Destruction

McNamara was repelled by the Massive Retaliation war plan in effect when he came to the Pentagon. In the event of an attack, the opening response was a salvo of nuclear weapons, which McNamara regarded as “spasm war.”

He had recently received a detailed presentation from RAND on “Counterforce/No Cities,” which he made the official US targeting doctrine on Feb. 10, 1961.<sup>54</sup> (McNamara did not like the term “Counterforce and eventually banned it from use in the Pentagon.) He did not say much about “No Cities” at first.

He announced the change to NATO defense and foreign ministers in Athens in May 1962. The Europeans, especially the French, did not like the departure from Massive Retaliation. They wanted the full use of the US nuclear deterrent linked automatically to an attack on Europe.<sup>55</sup>

McNamara was the commencement speaker at the University of Michigan on June 16. He gave the same speech he had given to the NATO ministers, minus the classified targeting data.

“The US has come to the conclusion that to the extent feasible, basic military strategy in a general nuclear war should be approached in much the same way that more conventional military operations have been regarded in the past,” McNamara said. “That is to say, principal military objectives, in the event of a nuclear war stemming from a major attack on the alliance, should be the destruction of the enemy's forces, not of his civilian population.”

SIOP-63, adopted in the fall of 1962, incorporated this view. Most of the US nuclear weapons were targeted on Soviet forces. Only 18 percent were targeted on cities and industry.<sup>56</sup>

For reasons that are not altogether clear, McNamara began to repent of his conversion to Counterforce. For one thing, the services—especially the Air Force—could use it as justification for budget requests to develop Counterforce capabilities. He was also persuaded by the argument that nuclear war was best prevented by the sheer horror of an all-out exchange. By that reasoning, the kind of options he and Kennedy had called for would make nuclear war more likely.

In a draft Presidential Memorandum Dec. 6, 1963, McNamara switched his support to “Assured Destruction” as the primary goal, although the revised strategy was not announced until Feb. 18, 1965.

Assured Destruction was a reflexive revenge doctrine. After absorbing a nuclear strike, the nation would retain just enough striking power to destroy the aggressor as a viable society. The target was the enemy population. The logic of Assured Destruction was that it must be suicidal for both sides so there could be no motive for the aggressor to attack in the first place.

That might have taken us back to “spasm war” except for one thing: McNamara did not change SIOP-63, so his policy of Assured Destruction never went into actual effect.<sup>57</sup>

McNamara and his aides set about the grisly task of establishing a standard for Assured De-

<sup>54</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 26; Shapley, *Promise and Power*, p. 139-140.

<sup>55</sup> In 1966, France withdrew its armed forces from NATO, objecting to the Alliance's change of strategy from Massive Retaliation to Flexible Response.

<sup>56</sup> Shapley, *Promise and Power*, p. 194.

<sup>57</sup> Shapley, *Promise and Power*, p. 196-200; Edgar Ulsamer, “‘Cheap’ Deterrence Could Be Fatal,” *Air Force Magazine*, August 1977.

struction. How much devastation had to be inflicted in a US spasm counterattack to deter the Russians from attacking?

"After careful study and debate," said McNamara aides Alain C. Enthoven and K. Wayne Smith, "it was McNamara's judgment, accepted by Presidents Kennedy and Johnson, and not disputed by the Congress, that the ability to destroy in retaliation 20 to 25 percent of the Soviet population and 50 percent of its industrial capacity was sufficient."<sup>58</sup>

With passage of time, McNamara's position on Assured Destruction grew stronger. "It is important to understand that Assured Destruction is the very essence of the whole deterrence concept," he said in a speech Sept. 18, 1967. "Our alert forces alone carry more than 2,200 weapons, each averaging more than the explosive equivalent of one megaton of TNT. Four hundred of these delivered on the Soviet Union would be sufficient to destroy over one-third of her population and one-half of her industry."

McNamara critic Donald G. Brennan of the Hudson Institute stuck the prefix "Mutual" onto Assured Destruction, making it Mutual Assured

Destruction and creating the famous acronym, MAD.<sup>59</sup>

MAD was taken to be a pejorative term (especially by advocates of Assured Destruction), but McNamara came to accept it and often used it himself. "It's not mad!" he said in an interview with CNN in 1997. "Mutual Assured Destruction is the foundation of deterrence."

An irony is that later generations of nuclear protesters usually attributed MAD to the armed forces, especially the Air Force—which was the champion of Counterforce. MAD was favored by McNamara, approved by Kennedy and Johnson, and supported by nuclear weapon minimalists.

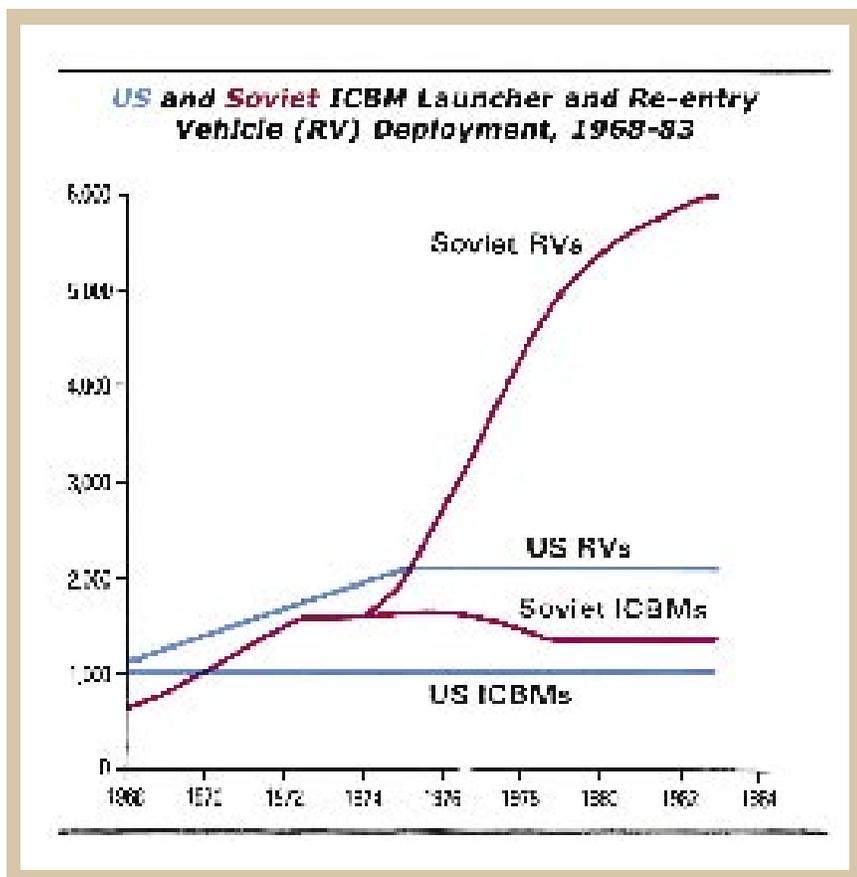
### Retreat From Superiority

The United States prevailed in the Cuban Missile Crisis because it had clear-cut strategic nuclear superiority over the Soviet Union. In the years that followed, the two nations learned different lessons from the experience and moved in opposite directions.

The Soviet Union worked to close the strategic nuclear gap, gain superiority, and never again be caught behind.

<sup>58</sup> Alain C. Enthoven and K. Wayne Smith. *How Much Is Enough? Shaping the Defense Program, 1961-1969*. Harper & Row, 1971, p. 175

<sup>59</sup> Peter Grier, "In the Shadow of MAD," *Air Force Magazine*, November 2001.



Source: Soviet Military Power, 1983

*By 1970, the USSR caught up with and passed the US in number of ICBMs. After launcher totals were capped by SALT I, the Soviets turned to increasing the number of re-entry vehicles to expand their advantage.*

The United States turned its back on strategic superiority. It canceled weapons programs, imposed a ceiling on its missile and bomber forces, and sought strategic parity with the Soviet Union.

Minuteman was cut from 2,000 missiles to 1,600, then to 1,000. Titan was held to 54 missiles. Long before Strategic Arms Limitation Treaty (SALT) ceilings, the United States capped its ICBM force at 1,054. The B-70 bomber was downgraded to R&D status, then killed. The Skybolt missile for the B-52 was canceled. The Advanced Manned Strategic Aircraft (later revived as the B-1 bomber) was sidelined.<sup>60</sup>

McNamara opined that “there is no indication that the Soviets are seeking to develop a nuclear force as large as ours.”<sup>61</sup>

The CIA’s National Intelligence Estimate in 1964 said, “The evidence to date does not indicate that Soviet deployment programs are directed toward a rapid numerical buildup. We do not believe that the USSR aims at matching the US in numbers of intercontinental delivery vehicles. Recognition that the US would detect and match or overmatch such an effort, together with economic constraints, appears to have ruled out this option.”<sup>62</sup>

The CIA forecast that the Soviet Union might have 400 to 700 operational ICBMs by 1970. (In fact, the Soviets had 1,440 ICBMs by 1970.) The CIA noted that Air Force intelligence disagreed with both the evaluation of Soviet objectives and the projected number of Soviet ICBMs.

In Moscow, the outlook was different. Khrushchev had bragged about capabilities he didn’t have, then miscalculated himself into a show-down that he lost. He was deposed in 1964 and

replaced with people who talked less and steadily built a strategic force.

Around 1969, the Soviets achieved parity in strategic missiles. Unlike the United States, though, parity was not their objective. When they pulled even in ICBMs, they kept on building and improving their force, both in numbers and quality.

The huge SS-9 ICBM showed up in a parade in Moscow in 1964. It was subsequently flown with three multiple independently targetable re-entry vehicles (MIRVs). While politicians in the United States argued about whether to make Minuteman more accurate, the Soviets introduced four new ICBMs in the early 1970s.

There was strong opposition to improving the US strategic force. A sense of Congress resolution, sponsored by Sen. Edward Brooke of Massachusetts, said that “neither the Soviet Union or the United States should seek unilateral advantage by developing counterforce weapons which might be construed as having a first strike potential.”<sup>63</sup> The problem was, only one side was building a counterforce capability.

The important thing, in the opinion of the minimizers, was that the United States not seek to regain strategic superiority. Paul C. Warnke, longtime Washington liberal and a proponent of “finding alternatives to peace through strength,” said in 1972, “The fine tuning of our nuclear weapons and delivery systems could create fears of counterforce attack on the other side and hence be destabilizing.”<sup>64</sup>

In a widely noted essay, “Apes on a Treadmill,” Warnke said the US should not even seek strategic equivalence. “The proposition that we must remain ahead of the Soviet Union in most if not

<sup>60</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 110, 334.

<sup>61</sup> McNamara, interview with *US News & World Report*, April 12, 1965, cited by Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 334.

<sup>62</sup> NIE 11-18-64, “Soviet Capabilities for Strategic Attack,” Oct. 8, 1964.

<sup>63</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 345.

<sup>64</sup> Quoted by Donald M. Snow, “ICBM Vulnerability, Mobility, and Arms Control,” *Air University Review*, March-April 1981.

<b>The Shifting Ratio in Strategic Missiles</b>			
	<b>1965</b>	<b>1969</b>	<b>1970</b>
<b>ICBMs</b>			
US	934	1,054	1,054
USSR	224	1,109	1,440
<b>SLBMs</b>			
US	464	656	556
USSR	107	240	350

*This chart, included in President Nixon’s Foreign Policy Report to Congress in 1971, shows the speed with which the Soviet Union in five years overturned the US-USSR ratio of strategic missiles.*

all perceivable elements of military power” is a “fallacy that inflates defense spending,” he said.

According to Warnke, the Russians were engaged in the arms race because they were following our example. To break the “monkey-see,

monkey-do phenomenon,” Warnke said, “we can be first off the treadmill.”<sup>65</sup>

He did not explain why the Soviet Union kept building more and newer ICBMs after the US had leveled off its strategic missile force in the 1960s.

<sup>65</sup> Paul C. Warnke, “Apes on a Treadmill,” *Foreign Policy*, Spring 1975.

## Detente



Ironically, it was President Richard M. Nixon, the arch foe of Communism, who established detente—the relaxation of tension—with the Soviet Union.

When Nixon began his term in 1969, US strategic superiority was already gone. Always a realist, Nixon tailored his foreign and defense policies to the situation and the possibilities. During his first months in office, he adopted the planning principle of “strategic sufficiency” instead of trying to regain strategic superiority.<sup>66</sup>

“After a period of confrontation, we are entering an era of negotiation,” Nixon said in his inaugural address in January 1969.

In a report to Congress, he said, “It is imperative that our strategic power not be inferior to that of any other state,” adding that “I am equally committed to seeking a stable strategic relationship with the Soviet Union.”<sup>67</sup>

Nixon would conclude two arms control treaties with the Soviet Union and establish diplomatic relations with the Communist Chinese.

These positions—on detente, on arms control, and on strategic equivalence—remained in effect and generally defined US policy until the Reagan revolution of the 1980s.

### Essential Equivalence

There was no chance of returning to strategic superiority. Given the antidefense mood rampant in Congress in the late 1960s and early 1970s, even holding on to parity was not a sure thing.

In February 1970, Nixon announced that he was cutting Kennedy’s standard for general pur-

pose forces from 2.5 wars to 1.5. The nation did not have a 2.5-war force nor was there a realistic prospect of building to that level. The new standard would cover one major attack in either Europe or Asia and one simultaneous contingency elsewhere. Forces would be sized to sustain a conventional conflict in Europe for 90 days. The assumption was that, if the conflict lasted any longer, it would escalate to nuclear war.<sup>68</sup>

In 1974, Strategic Sufficiency was refined by Secretary of Defense James R. Schlesinger into a more precise concept called “Essential Equivalence.” Schlesinger said, “There must be essential equivalence between the strategic forces of the United States and the USSR—an equivalence perceived not only by ourselves, but by the Soviet Union and Third World audiences as well.”<sup>69</sup>

In the Ford Administration, Donald H. Rumsfeld—in his earlier tour as Secretary of Defense—recast the concept slightly, calling it “Rough Equivalence.”

“Since it is desirable to forestall situations such as the Cuban Missile Crisis, we believe that our forces, in addition to meeting the conditions of second-strike assured destruction and multiple options, should be roughly equivalent to the forces of the USSR,” Rumsfeld said. “We do not mean by this that our strategic offensive capabilities should constitute a mirror image of Soviet missiles and bombers. Rather ... they should not be inferior in their overall effectiveness.”<sup>70</sup>

Harold S. Brown, the Secretary of Defense in the Carter Administration, returned to the formulation of Essential Equivalence. That required, he said, that “our overall forces

<sup>66</sup> Henry Kissinger. *White House Years*. Little, Brown, 1979, p. 217.

<sup>67</sup> Nixon, Foreign Policy Report to Congress, Feb. 25, 1971.

<sup>68</sup> Nixon, Foreign Policy Report to Congress, Feb. 18, 1970; Kissinger, *White House Years*, p. 220-222.

<sup>69</sup> James R. Schlesinger, FY 1975 Report to Congress, March 4, 1974.

<sup>70</sup> Schlesinger, FY 1977 Report to Congress, 1976.

be at least on a par with those of the Soviet Union and also that they be recognized to be essentially equivalent.”

Brown added that “although the United States need not match Soviet capabilities in all respects, we must also insure that the Soviet Union does not have a monopoly of any major military capability. ... Long-term stability in the strategic balance—another objective of US strategic policy—is maintained by ensuring that the balance is not capable of being overturned by a sudden Soviet technological breakthrough.”<sup>71</sup>

## Arms Control

The Nixon years brought progress in strategic modernization for the Air Force. The B-1 bomber, the MX missile, and the Air Launched Cruise Missile programs all moved forward. However, the biggest innovation affecting the strategic balance came from a new direction: arms control.

There were previous forays into arms control with the Limited Test Ban Treaty in 1963 and the Nuclear Nonproliferation Treaty in 1968, but they had only an indirect effect on US and Soviet strategic forces.

The two agreements signed in Moscow May 26, 1972, by Nixon and Soviet leader Leonid Brezhnev went beyond any precedent.

- The SALT I Treaty froze strategic nuclear missiles at existing numbers, deployed or under construction, for five years. It did not address bombers.

- The ABM Treaty limited each side to two antiballistic missile sites. It was of “unlimited duration,” but allowed either party to withdraw upon six months’ notice.

Since the Russians were ahead in ICBMs, SALT I froze the level at a three-to-two advantage in launchers for the Soviet Union. Henry Kissinger, then Nixon’s national security advisor, defended the agreement in a briefing to the Senate Foreign Relations Committee June 15, 1972.

“Does the agreement perpetuate a US strategic disadvantage?” Kissinger asked rhetorically. “We reject the premise of that question on two grounds. First, the present situation is on balance advantageous to the United States. Second, the Interim Agreement perpetuates nothing which did not already exist in fact and which could only have gotten worse without an agreement.”

The United States was not going to increase its ICBM force, with or without SALT I, and the treaty might have some restraining effect on the

Russians, who had continued to add to their missile force.

The ABM Treaty was a big trophy for liberals in Congress and the news media, which had waged an intensive campaign on its behalf. Ballistic missile defense went against the precepts of Assured Destruction. With MAD, the nuclear destruction had to be both mutual and assured. Missile defense must not be permitted to introduce the possibility that either side might ride out the attack.

Long after the end of the Cold War and the fall of the Soviet Union, the disciples of Mutual Assured Destruction were still fighting to prevent ballistic missile defense. Their efforts kept the ABM Treaty in effect until 2002, when the United States finally withdrew from it.

## China

The opening of US diplomatic relations with China had consequences for the Cold War. It made a major threat in the Far East less dangerous, and it also gave the United States new leverage in its dealings with the USSR. Normalization of US-Chinese relations was made possible by the steadily worsening rift between China and the Soviet Union.

In Mao Zedong’s opinion, the Russians who came after Stalin were ideologically deviant. The Russians thought Mao’s “Great Leap Forward” and his “Cultural Revolution” were bizarre.

Russia did not support China in a border dispute with India, and Khrushchev reneged on an agreement to provide nuclear technology to China. Khrushchev called Mao an adventurist. Mao called Khrushchev a revisionist. In 1967, Mao’s Red Guards besieged the Soviet embassy in Beijing. In 1969, Soviet and Chinese troops clashed along the border in Asia.

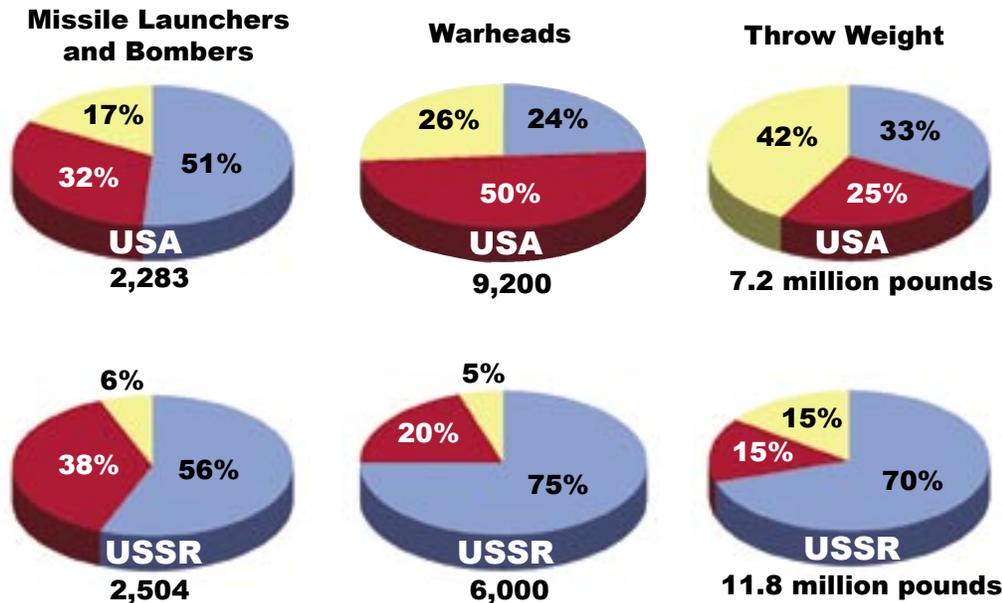
For years, Nixon had been an advocate of rapprochement with China. The opportunity came in 1971, when Mao invited the US Ping-Pong team to China. Visits by Kissinger and Nixon followed, and in 1972, China and the United States issued a joint communique pledging to work toward normalizing relations.

The establishment of diplomatic relations and the transfer of US recognition of China from Taipei to Beijing did not occur until 1978, but the new American relationship with a former Soviet ally had immediate significance in the Cold War. Soviet leaders had to keep the new lineup in mind when negotiating with the West.

<sup>71</sup> Schlesinger, Report to Congress, Jan. 29, 1980.

## COMPOSITION OF US AND SOVIET STRATEGIC FORCES, 1980

■ ICBM   ■ SLBM   ■ Heavy Bomber



By 1980, the United States—once ahead in all nuclear force categories—was ahead only in number of warheads and trailed the Soviet Union in launchers and megatonnage.

*Source: Defense Secretary Harold Brown, FY 1981 Report to Congress.*

By 1973, the Soviets had 45 divisions and 1,200 combat aircraft tied down on the Chinese border.<sup>72</sup>

### Nuclear Options and Strategies

In 1970, Nixon described the inflexibility of options for response to a nuclear attack. He sounded much like Kennedy had in 1962, on the same subject.

“Should a President, in the event of nuclear attack, be left with the single option of ordering the mass destruction of enemy civilians, in the face of the certainty that it would be followed by the mass slaughter of Americans?” Nixon asked. “Should the concept of assured destruction be narrowly defined and should it be the only measure of the variety of threats we may face?”<sup>73</sup>

Assured Destruction thinking had taken a toll on the planning process. Failure to improve the accuracy of US missiles had reduced their effec-

tiveness against Soviet military targets, which were now hardened and more numerous.

Greater flexibility was prescribed by NSDM 242 in January 1974. It called for “selected nuclear operations to seek early war termination ... at the lowest level of conflict possible” if deterrence failed.<sup>74</sup> The new strategy was called “Limited Nuclear Options.” It would at least attempt to keep a nuclear conflict local before escalating to an all-out exchange.

“Rather than massive options, we now want to provide the President with a wider set of much more selective targeting options,” Schlesinger said. He told Congress in 1974 that “there are many ways, other than a massive surprise attack, in which an enemy might be tempted to use, or threaten to use, his strategic forces to gain a major advantage or concession. It follows that our own strategic forces and doctrine must take a wide range of possibilities into account if they

<sup>72</sup> Walker, *The Cold War*, p. 217.

<sup>73</sup> Foreign Policy Report to Congress, Feb. 18, 1970.

<sup>74</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2., p. 346.

are successfully to perform their deterrent functions.”

The United States was, he said, “eager to begin a reduction of the strategic forces by mutual agreement and on terms of parity.”<sup>75</sup>

In a later report, Schlesinger added, “We face a wide range of possible actions involving nuclear weapons, and no single response is appropriate to them all.” He said, “To threaten to blow up all of an opponent’s cities, short of an attack on our cities, is hardly an acceptable strategy, and in most circumstances the credibility of the threat would be close to zero, especially against a nation which could retaliate against our cities in kind.”<sup>76</sup>

The Carter Administration established the “Countervailing Strategy” in July 1980. Secretary of Defense Brown chose his words carefully, acknowledging Assured Destruction without being hemmed in by it.

“What has come to be known as assured destruction is the bedrock of nuclear deterrence, and we will retain such a capacity in the future,” Brown said. However, it was also necessary to “have plans for attacks which pose a more credible threat than an all-out attack on Soviet industry and cities. These plans should include options to attack the targets that comprise the Soviet military force structure and political power structure, and to hold back a significant reserve.”<sup>77</sup>

Brown later said that “the countervailing strategy is less of a departure from previous doctrine than is often claimed.”<sup>78</sup>

Brown supported the continued development of the MX missile, aiming for operational capability in 1986, and programs to make Minuteman III more accurate against hard targets.

## The Brezhnev Doctrine

Whenever a client state showed a spark of independence, the Soviet Union moved quickly and ruthlessly to snuff it out. The Hungarian Revolution in 1956 was suppressed by military force. Soviet troops were used again in Czechoslovakia in 1968.

In the interlude known as “Prague Spring,” Czech Communist Party leader Alexander Dubcek attempted to introduce economic and social reforms, or “socialism with a human face.” Moscow was not amused.

On Aug. 20, some 200,000 Russian and Warsaw Pact troops and 5,000 tanks invaded Czechoslovakia, put an end to “Prague Spring,” and re-imposed the standards of a traditional satellite state.

“Nobody will be ever allowed to wrest a single link from the community of Soviet states,” the Soviet News Agency, Tass, said on Aug. 21.

In a speech to the Polish Party Congress Nov. 12, Brezhnev laid down the principle—called the “Brezhnev Doctrine”—that the Soviet Union had the right to intervene in other Communist states to ensure the interests of world socialism.

“When internal and external forces hostile to socialism seek to turn the development of any socialist country toward restoring the capitalist order, when there arises a threat to the cause of socialism in that country—a threat to the security of the socialist commonwealth as a whole—this already becomes not only a problem for the people of that country, but also a common problem, the concern of all socialist countries,” Brezhnev said.

Client states did not leave the Soviet empire, and they did not make up their own rules. Thirteen years later, the Brezhnev Doctrine was in-

<sup>75</sup> Schlesinger, FY 1975 Report to Congress, March 4, 1974.

<sup>76</sup> Schlesinger, Annual Defense Department Report, FY 1976 and FY 1977.

<sup>77</sup> Harold Brown, Report to Congress, Jan. 29, 1980.

<sup>78</sup> Brown. *Thinking About National Security*. Westview Press, 1983, p. 81.

<b>Soviet Equipment Delivered to the Third World, 1980-88</b>	
<b>Supersonic aircraft</b>	<b>2,620</b>
<b>Helicopters</b>	<b>1,705</b>
<b>Surface-to-Air Missiles</b>	<b>32,210</b>
<b>Tanks/Self-Propelled Guns</b>	<b>9,725</b>

*In addition to military equipment, the Soviet Union supplied large numbers of military advisors to clients in Latin America, Africa, Middle East, and Asia.*

Source: Soviet Military Power, 1989

voked again in the case of the Solidarity movement in Poland.

In 1980, workers at the Lenin Shipyard in Gdansk went on strike. The cause of their union, "Solidarity," swept the country and drew world attention. Soviet forces assembled at the border, but the Polish regime declared martial law and arrested the union leaders on its own.

Wary of any kind of compromise in Poland, the Soviet Union in March 1981 issued a warning that "the socialist community is indivisible and its defense is the concern not just of each individual state but of the socialist coalition as a whole."<sup>79</sup>

## Conflicts Abroad

As leader of world Communism, the Soviet Union supplied equipment and advisors to Socialist movements in the Third World.

In 1974, Defense Minister Marshal Andrei Grechko renewed Khrushchev's commitment to wars of national liberation. "The historic function of the Soviet armed forces is not restricted merely to the functions of defending our motherland and other socialist countries," Grechko said. Their mission included support for "the national liberation struggle" and resistance to imperial aggression "in whatever distant region of our planet it may appear."<sup>80</sup>

The Soviets were deeply involved in the Arab-Israeli conflicts of the Middle East. In the Six Day War, June 5-10, 1967, they supplied and

equipped the Arabs, who were soundly defeated. In the War of Attrition, March 1969 to August 1970, the Soviets took a combat role, manning SA-3 missile batteries and flying operational missions from bases in Egypt. On July 30, 1970, the Israeli Air Force shot down five MiGs flown by Soviet pilots, with no losses for the IAF.

The United States supported Israel in these wars, but Operation Nickel Grass in the 1973 Arab-Israeli War was an exceptional instance in which the US took a direct part.

Israel's opponents, Egypt and Syria, had been well supplied by the Soviets. Israel, having lost many of its tanks and running short of ammunition, was facing defeat. The US Air Force flew 567 resupply sorties in "the airlift that saved Israel," as it was described by Israeli Prime Minister Golda Meir, delivering the tanks, howitzer shells, spare parts, and materiel that enabled Israel to fight off the invasion.

The Soviet Union began an ill-fated foreign adventure in December 1979, when Soviet tanks, infantry, and paratroopers invaded Afghanistan and overthrew the government. That gave the Russians a position of strategic importance near the Persian Gulf, but they aroused more local opposition than they were able to handle.

They also aroused the United States. In January 1980, President Carter withdrew the SALT II treaty, which had been signed the previous June, from consideration by the Senate.<sup>81</sup>

<sup>79</sup> Walker, *The Cold War*, p. 258.

<sup>80</sup> Smyser, *From Yalta to Berlin*, p. 281.

<sup>81</sup> SALT II would have limited each side to an aggregate of 2,400 strategic nuclear delivery systems (the combination of ICBM, SLBM, bomber, and air-to-surface ballistic missiles), with a maximum of 1,320 MIRVed missiles each.

# 9

## Problems of Balance

By the early 1970s, the Russians had gone well beyond parity in ICBMs, and their capabilities were of deepening concern to the United States.

"In recent years, the USSR has been pursuing a vigorous strategic R&D program," Secretary of Defense Schlesinger said in 1974.<sup>82</sup> "This we had expected. But its breadth, depth, and momentum as now revealed comes as something of a surprise to us.

"During the past year alone, the Soviets have tested four new ICBMs (the SS-X-16, SS-X-17, SS-X-18, and SS-X-19) and have developed their first MRV submarine launched missile. The new ICBMs are of special interest. Three of the four have been flown with MIRVs, and all of them are being designed for increased accuracy. The very large SS-X-18 will have about 30 percent more throw weight than the currently deployed SS-9. ...

"If all three new and heavier missiles are deployed, Soviet throw weight in their ICBM force will increase from the current six to seven million pounds to an impressive 10 to 12 million pounds.

"This throw weight, combined with increased accuracy and MIRVs, could give the Soviets on the order of 7,000 one-to-two megaton warheads in their ICBM force alone. They would then possess a major one-sided counterforce capability against the United States ICBM force."

Schlesinger said, "The United States is prepared to reduce, stay level, or, if need be, increase our level of strategic arms, but in any case, that level will be fixed by the actions of the Soviet Union. If the Soviet Union insists on moving ahead with a new set of strategic capabilities, we will be forced to match them."

### Disputed Estimates

Not everyone agreed with Schlesinger's assessment of the threat. Among those with a dif-

ferent opinion were the analysts at the CIA, who had a long history of bad calls on Soviet capabilities and intentions.

The CIA's National Intelligence Estimate of Sept. 19, 1962, for example, said the Russians were not likely to introduce missiles into Cuba.<sup>83</sup> (This was four days after the first missiles arrived in Cuba and less than a month before an Air Force U-2 found the first missile site.)

In 1964, the CIA expressed doubt that the Soviet Union would try to match the United States in numbers of bombers and missiles. The CIA was wrong (see p. 24), but at the time, the Air Force's contention that the CIA understated the Soviet threat was a sticky point within the government. In 1964, CIA Director John A. McCone sent McNamara a classified CIA report on Air Force dissent.

"The Air Force has consistently taken the position of crediting the Soviets with a greater current and prospective capability than the other members of the Intelligence Community," McCone said, asking McNamara "to handle this communication on a very personal basis."<sup>84</sup>

The Air Force was not alone in distrusting the CIA estimates. Both Nixon and Schlesinger "felt that the CIA's analysts reflected the bias of the liberal intellectual and academic communities at large," Thomas Powers said in his biography of CIA Director Richard Helms.<sup>85</sup>

The issue flared up again in 1975, when the National Intelligence Estimate said the SS-18s and SS-19s, the most accurate of the Soviet ICBMs, were not accurate enough to threaten the US Minuteman silos. According to Air Force historian Futrell, it "became evident" that the CIA was wrong and that accuracy of the missiles was much better than had been reported.<sup>86</sup>

### Team B

In 1976, Director of Central Intelligence George H.W. Bush appointed "Team B," headed

<sup>82</sup> Schlesinger, FY 1975 Report to Congress, March 4, 1974.

<sup>83</sup> Thomas Powers. *The Man Who Kept the Secrets: Richard Helms and the CIA*. Knopf, 1979, p. 161.

<sup>84</sup> John A. McCone, letter to McNamara, Nov. 16, 1964.

<sup>85</sup> Powers, *The Man Who Kept the Secrets*, p. 214.

<sup>86</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2. p. 351-352.

by Professor Richard Pipes, to take an independent look at the data that went into National Intelligence Estimate and give its assessment on whether Soviet strategic objectives were more ambitious and more threatening than depicted in the NIE.

Members of the team “were deliberately selected from among experienced political and military analysts of Soviet affairs known to take a more somber view of the Soviet strategic threat than that accepted as the Intelligence Community’s consensus,” according to the Team B report.<sup>87</sup>

With only 12 weeks to work, Team B did not attempt a net assessment, concentrating instead on the major issues. Among its findings were these:

- “Although, in the past two years, the NIEs have taken a more realistic view of the Soviet military buildup and even conceded the possibility that the ultimate objective may well exceed the requirements of deterrence, they still incline to play down the Soviet commitment to a war-winning capability.”

- “On some occasions, the drafters of NIE display an evident inclination to minimize the Soviet strategic buildup because of its implications for detente, SALT negotiations, Congressional sentiments as well as for certain US forces.”

- “The scope and vigor of Soviet strategic programs leave little reasonable doubt that Soviet leaders are indeed determined to achieve the maximum possible measure of strategic superiority over the US.”

- “What is noteworthy is the continued absence of recognition of Soviet strategic counterforce emphasis and aspirations.”

The Team B report led to a great uproar from liberal commentators, who were still complaining years later that Team B was wrong and that it was all a right wing trick to undercut detente.

“For more than a third of a century, perceptions about US national security were colored by the view that the Soviet Union was on the road to military superiority over the United States,” said Anne Hessian Cahn, who had served as chief of the social impact staff for the US Arms Control and Disarmament Agency, in 1993.<sup>88</sup>

The minimizers hoped that their views about Soviet military power would prevail after the election of Jimmy Carter, but that did not happen. In 1980, Alexander Cockburn and Andrew Cockburn bemoaned “the Carter Administration’s

surrender to the notion of the vulnerability of its land-based missiles.”<sup>89</sup>

Indeed. The best defense thinker the Democrats had was Carter’s Secretary of Defense, Harold Brown, and some of his positions sounded a lot like Team B.

“The Soviet Union’s approach to war is different from that of the US,” Brown said in 1979. “They desire and are seeking capabilities which would enable them to fight, win, and survive a nuclear exchange.”<sup>90</sup>

In his book, *Thinking About National Security*, published in 1983, Brown said that “Soviet ICBM accuracies improved substantially during the 1970s, and their numbers of separately targetable ICBM warheads increased fivefold. Now, in the 1980s, they can have reasonable confidence of destroying nearly all US Minuteman silos. ...

“There is a dangerous asymmetry; at the present time the Soviet ICBM force is not at similar risk because the US ICBM force does not have enough re-entry vehicles of high accuracy to pose a like threat to the larger number of Soviet ICBM silos.”<sup>91</sup>

In 2001, the CIA co-sponsored a conference on the CIA’s analysis of the Soviet Union in Cold War. Raymond L. Garthoff of the Brookings Institution—who brought a substantial partisan viewpoint to the task—was chosen to write the paper on the CIA’s handling of Soviet military intentions and capabilities.

Garthoff recognized the “mistaken low estimates of future levels of Soviet ICBMs that the agency made from 1963 through 1968” and acknowledged that “in the early 1970s, Soviet missile accuracies tended to be underestimated.”<sup>92</sup>

However, Garthoff said that nearly all of Team B’s criticisms were wrong and that the exercise had been “ill conceived and disappointing.” Specifically, he said, “Team B overestimated the accuracy of the SS-18 and SS-19 ICBMs, feeding the unwarranted fears of a ‘window of vulnerability’ for the US ICBM deterrent.”

As to whether the Soviets were seeking strategic superiority during the Cold War, the critics were also at odds with former Soviet leader Mikhail Gorbachev, who has acknowledged that the Soviet objective was “military supremacy relative to any possible opponent.”<sup>93</sup> He has also said that “the arms race continued, gaining momentum even after achieving military and strategic parity with the United States of America.”<sup>94</sup>

<sup>87</sup> Report of Team B, “Soviet Objectives: An Alternative View,” CIA, December 1976. Team B consisted of Professor Richard Pipes (team leader) and associates: Professor William Van Cleave, Lt. Gen. Daniel Graham, USA (Ret.), Thomas Wolfe, RAND, Gen. John Vogt, USAF (Ret.). Members of the advisory panel were Ambassador Foy Kohler, Paul Nitze, Ambassador Seymour Weiss, Maj. Gen. Jasper Welch, USAF, and Paul Wolfowitz, ACDA.

<sup>88</sup> Anne H. Cahn, “Team B: The Trillion-Dollar Experiment,” *Bulletin of the Atomic Scientists*, April 1993.

<sup>89</sup> Cockburn and Cockburn, “The Myth of Missile Accuracy,” *New York Review of Books*, Nov. 8, 1980.

<sup>90</sup> Futrell, *Ideas, Concepts, Doctrine*, Vol. 2, p. 351. CHECK BROWN

<sup>91</sup> Brown, *Thinking About National Security*, p. 66-67.

<sup>92</sup> Raymond L. Garthoff, “Estimating Soviet Military Intentions and Capabilities,” CIA, March 2001.

<sup>93</sup> Mikhail Gorbachev. *On My Country and the World*. Columbia University Press, 2000, p. 171-172.

<sup>94</sup> Gorbachev. *Memoirs*. Doubleday, 1995, p. 138.

## The Scowcroft Commission

The study with the greatest influence on the recent strategic force programs was the Scowcroft Commission report in 1983. The commission was headed by retired Air Force Lt. Gen. Brent Scowcroft, national security advisor in the Ford Administration. Members included Democrats and Republicans, and both the military and the CIA viewpoints were well represented.<sup>95</sup>

Among its findings:

- “While Soviet operational missile performance in wartime may be somewhat less accurate than performance on the test range, the Soviets nevertheless now probably possess the necessary combination of ICBM numbers, reliability, accuracy, and warhead yield to destroy almost all of the 1,047 US ICBM silos, using only a portion of their own ICBM force. The US ICBM force now deployed cannot inflict similar damage, even using the entire force. Only the 550 MIRVed Minuteman III missiles in the US ICBM force have relatively good accuracy, but the combination of accuracy and yield of their three warheads is inadequate to put at serious risk more than a small share of the many hardened targets in the Soviet Union. Most Soviet hardened targets—of which ICBM silos are only a portion—could withstand attacks by our other strategic missiles.”

- “Effective deterrence of any Soviet temptation to threaten or launch a massive conventional or a limited nuclear war thus requires us to have a comparable ability to destroy Soviet military targets, hardened and otherwise. If there were ever a case to be made that the Soviets would unilaterally stop their strategic deployments at a level short of the ability to seriously threaten our forces, that argument vanished with the deployment of the SS-18 and the SS-19.”

Various considerations “have led us as a nation in recent years to try to re-create all the desirable characteristics that Minuteman possessed during the ‘60s and much of the ‘70s,” the report said.

It would be virtually impossible to solve the ICBM problem with a single weapon, the commissioners said. They suggested deploying the MX missile, as planned, but supplementing it with a single-warhead missile for basing flexibility and survivability.

Plans for the MX basing mode moved from Multiple Protective Shelters (“the shell game”) to

Closely Spaced Basing (“dense pack”) to deployment in existing Minuteman silos as an interim step on the way toward Rail Garrison basing (on warning, the missiles would move out of their garrisons onto the railroads).

However, the Cold War ended before Rail Garrison was established. The end of the Cold War also overtook “Midgetman,” the small road-mobile ICBM with a single warhead.

## The Strategic Triad

The 1970s saw a flurry of proposals to dump the US strategic triad of bombers, ICBMs, and SLBMs in favor of a dyad—perhaps bombers and SLBMs, or sea- and land-launched missiles—but that idea was rejected.

As the Scowcroft Commission pointed out, each leg of the triad had strengths and weaknesses. This diversity made it difficult for an enemy to simultaneously attack or defend against all three legs.

For example, if the Russians attacked our ICBMs, they would have to do it with their ICBMs. Their bombers and SLBMs did not have the accuracy and throw weight. If the Russians attacked with ICBMs, though, our bombers would get about 15 minutes of warning and escape time. If we reacted promptly, there would also be enough time to launch our ICBMs before the Russian warheads landed.

The only way the Russians could catch our bombers by surprise and attack them before they escaped would be with their SLBMs, launched from submarines near the US coast. That would leave our ICBMs plenty of warning and response time.

ICBMs had a high alert rate, low operating cost, prompt counterforce capability, and assured penetration. They were more accurate than SLBMs, and faster than bombers—but they were vulnerable.

Bombers were slower than missiles, and air defenses could potentially stop them from reaching their targets. However, bombers were flexible, more accurate than missiles, carried a large payload, could be recalled after launching, and could be used in a show of force.

SLBMs were the most survivable leg of the triad. It was virtually impossible for an enemy to strike them while they were at sea. However, they were less accurate and had a lower weapons yield than the other legs. Communications

<sup>95</sup> Brent Scowcroft, et al., “Report of the President’s Commission on Strategic Forces,” April 6, 1983. CIA Director Helms was a commissioner, as was future CIA Director James Woolsey. Past CIA Directors Schlesinger and McCone were senior counselors.

### Characteristics of US Ballistic Missile Forces, 1988

	Number of re-entry vehicles	Yield per RV (kilotons)	CEP (nautical miles)	Throw Weight (in thousands of pounds)	System Availability (day-to-day)
Minuteman II	1	12,000	0.34	1.5	0.95
Minuteman III					
Mk 12	3	170	0.10	2.4	0.95
Mk 12A	3	170	0.10	2.4	0.95
Peacekeeper	10	300	0.50	7.9	0.95
Midgetman	1	475	0.07	1.3	0.90
Poseidon (C-3)	10	40	0.25	3.3	0.66
Trident I (C-4)	8	100	0.15	3.0+	0.66
Trident II					0.66
Mk 4	12	100	0.08	5.3	0.66
Mk 5	8	475	0.08	5.3	0.66

Source: Congressional Budget Office

were a problem when the submarines were submerged.

The Soviets continued to field improved bombers, but their emphasis remained on ICBMs. Accordingly, air defense against bomb-

ers diminished in importance in US strategy. In 1980, Air Defense Command was inactivated and its missions and assets were divided between Strategic Air Command and Tactical Air Command.

### Six Snapshots of Soviet Force

	1984	1985	1986	1987	1988	1989
<b>ICBM</b>	1,398	1,398	1,396	1,418	1,386	1,406
<b>SLBM</b>	981	982	983	967	978	1,030
<b>Bombers</b>	850	846	847	862	888	860
<b>Tac aircraft</b>	6,260	6,135	6,300	5,200	5,170	5,170
<b>Ground div</b>	194	199	201	211	211	214

Source: *Soviet Military Power*, annual editions

# 10

## Challenging the Evil Empire

The United States stopped its quest for parity after the election of Ronald Reagan in 1980. He did not believe the Cold War should be—or had to be—strung out in a permanent balance of terror.

He wanted to get rid of nuclear weapons on both sides, but, until that became possible, he would push to strengthen US capabilities. He would challenge the Soviet Union at every turn.

He revoked detente at his first press conference, Jan. 29, 1981. Responding to a question, he said that “so far, detente’s been a one-way street that the Soviet Union has used to pursue its own aims.”

Reagan’s first priority on taking office was to “rearm America” and repair the diminished US military establishment, called “the hollow force,” which he inherited. He requested and got major budget increases for defense.

His support for the MX missile drew fierce attacks from the factions that sought to constrain US ICBM accuracy and MIRVs.

“President Reagan’s decision on the MX missile signals that the United States is now firmly and publicly embarked on a first-strike nuclear policy,” complained Herbert Scoville Jr., president of the Arms Control Association, formerly assistant director of the Arms Control and Disarmament Agency and a former deputy director at the CIA. “The entire MX program should be canceled now.”<sup>96</sup>

By the minimizers’ reasoning, a counterforce capability for MX would be dangerous and objectionable—but the counterforce capability of the big Russian missiles was nothing to get excited about.

Before long, the Reagan critics had new things to complain about.

### The Ash Heap of History

For the first time in more than 20 years, it was again US policy to roll back the Soviet advance. This was set forth in National Security Decision Directive 32, May 20, 1982, which said that a basic objective was “to contain and reverse the expansion of Soviet control and military presence throughout the world.”

Reagan was talking about NSDD-32 in June when he cited, in a ringing speech to the British Parliament, “a plan and a hope for the long term” in which “the march of freedom and democracy will leave Marxism-Leninism on the ash heap of history.”<sup>97</sup>

NSDD-75, on Jan. 17, 1983, was stronger and more detailed. It said the primary focus of US policy toward the USSR would be “to contain and over time reverse Soviet expansionism by competing effectively on a sustained basis with the Soviet Union in all international arenas—particularly in the overall military balance and in geographical regions of primary concern to the United States.”

We would also do what we could to support internal change in the Soviet Union. The stated objective was “to promote, within the narrow limits available to us, the process of change in the Soviet Union, toward a more pluralistic political and economic system in which the power of the privileged ruling elite is gradually reduced.”

NSDD-75 said that “the primary US objective in Eastern Europe is to loosen Moscow’s hold on the region.” Members of the White House staff later said this paper gave Reagan the thrust of his remarks in a speech on March 8, 1983, in which he called the Soviet Union “an evil empire.”

Detente surely had a stake through its heart by then, but there was another challenge to come.

<sup>96</sup> Herbert Scoville Jr., “First Strike,” *New York Times*, Oct. 8, 1981.

<sup>97</sup> Reagan, Westminster speech, June 8, 1992.

## “Star Wars”

In a speech to the nation March 23, 1983—the so-called “Star Wars” speech—Reagan asked, “What if free people could live secure in the knowledge that their security did not rest upon the threat of instant US retaliation to deter a Soviet attack, that we could intercept and destroy ballistic missiles before they reached our own soil or that of our allies?”

He acknowledged it was “a formidable technical task” that “will take years, probably decades, of efforts,” but said the United States had to try. He announced “a long-term research and development program to begin to achieve our ultimate goal of eliminating the threat posed by strategic missiles.”

The project was designated the Strategic Defense Initiative, but the staff of Sen. Edward Kennedy (D-Mass.) tagged it “Star Wars,” and the name stuck. There was widespread doubt, in the defense community and elsewhere, that such a defensive system would work.

The biggest objections, however, came from those who were afraid there was a chance that it might work and that if it did, MAD was out of business.

For their part, the Russians took SDI seriously. Yuri Andropov, during his short tenure as general secretary, denounced SDI as a plot to “disarm” the Soviet Union.<sup>98</sup>

Marshal Sergei Akhromeyev, former chief of the General Staff, said in 1990 that the Russians had not expected SDI to create a perfect shield against ICBM attack, but they did believe it was

a broad technology offensive to overcome the Soviet Union militarily and ruin it financially.<sup>99</sup>

Reagan’s announcements, especially the one about SDI, had the Russians’ nerves on edge. When Soviet pilots shot down the KAL-007 Korean airliner Sept. 1, 1983, leaders in the Kremlin leapt from one fantasy to another.

The Soviets somehow convinced themselves that the KAL shootdown was the fault of the United States and that the flight was a “political provocation” organized by the US to discredit the Soviets when they shot it down.

The annual NATO exercise Able Archer was scheduled for Nov. 2-11. The Russians knew about this exercise from previous years, but this time, they interpreted preparations for it as cover for a planned strategic nuclear strike on the Soviet Union. Warned by a double agent of the Soviet delusions, the United States reduced the scope of Able Archer, and another crisis passed.<sup>100</sup>

SDI and the elimination of the nuclear threat were close to Reagan’s heart, but, until these goals were realized, Reagan would do his best to keep the US deterrent capability strong. He would also push for arms control. It was his idea, in 1981, to call the negotiating process the Strategic Arms Reduction Talks, changing the goal from “limitation” to “reduction.”

## Standoff in Europe

As the Russians added to their strategic nuclear power, they concurrently built a conventional force of enormous size. It included highly capable MiG and Sukhoi fighters and large tank armies.

<sup>98</sup> William G. Hyland, *The Cold War*, p. 177.

<sup>99</sup> Dimitri K. Simes. *After the Collapse: Russia Seeks Its Place as a Great Power*. Simon & Schuster, 1999, p. 24-25.

<sup>100</sup> Benjamin B. Fischer, “A Cold War Conundrum: The 1983 Soviet War Scare,” CIA, 1997.

**NATO vs the Pact: In Place and Fully Reinforced, 1987**

	NATO		Warsaw Pact	
	in place	reinforced	in place	reinforced
<b>Fighter-interceptors</b>	1,100	1,140	2,700	3,100
<b>Bomber, fighter bomber, ground attack aircraft</b>	2,200	3,850	3,000	3,450
<b>Recon aircraft</b>	270	370	450	570
<b>Ground divisions</b>	91	121	132	229
<b>Main battle tanks</b>	21,100	25,900	32,400	53,100
<b>Attack helicopters</b>	600	1,300	1,000	1,250
<b>Artillery</b>	15,300	18,500	23,800	44,000

Source: *Soviet Military Power, 1988*

Much of this force was positioned against NATO and more of it was ready to deploy to Europe as reinforcements.

“The size of their medium-range force bears no evident relationship to the capability of its counterparts in Western Europe or even to any urban target systems there,” Schlesinger said in his report to Congress in March 1974.

Soviet military doctrine was full of ambiguous language, and Western interpretations were partly guesswork. However, in the 1970s, the Soviets began to talk about the possibility of extended conventional war between the superpowers. A concept called the “Theater Strategic Operation” envisioned the use of coordinated air and ground power in a rapid, non-nuclear war, striking targets up to 1,500 kilometers deep in enemy territory.<sup>101</sup>

Against this larger adversary, NATO’s best suit was airpower, especially the first line fighter and attack aircraft of the US Air Force. If the Air Force had time to get its reinforcements to Europe before a war started, NATO leaders believed, they stood a good chance of stopping an invasion.<sup>102</sup>

In 1977, when detente was supposedly in full bloom, the Russians began deploying mobile SS-20 intermediate-range missiles in Europe. The new missiles posed two kinds of danger. The nuclear warheads could reach all of the capitals of NATO Europe within five minutes, and because the SS-20s were targeted on Europe alone, they separated the defense of Europe from the defense of the United States. The Europeans feared that this might “decouple” NATO from the extended deterrence of the US strategic nuclear arsenal.

In 1979, NATO adopted a “dual track” policy for responding to the SS-20 threat. One track was diplomacy, by means of which the West would try to get the SS-20s withdrawn. Failing that, the other track was to deploy US intermediate-range missiles, the Army Pershing II missile and the Air Force Ground Launched Cruise Missile, to counter the SS-20s. In 1981, the United States proposed a “zero-zero” option, in which the US and the USSR would forego medium-range missiles worldwide. The Russians refused.

The peace movement, which had not objected to the SS-20s, arose in full cry to protest the counterdeployment of US missiles, but NATO stood firm. Deployment of the NATO missiles began in July 1982.

The SS-20s and the US missiles were finally withdrawn after the US and the Soviet Union signed the Intermediate-Range Nuclear Forces (INF) treaty in 1987.

## Force vs. Force

The Soviet military buildup did not stop when Gorbachev came to power in 1985. In fact, it continued through the 1980s, almost to the very end of the Cold War.

The CIA reported in 1988 that, “in terms of what the Soviets spend, what they procure, how their strategic forces are deployed, how they plan, and how they exercise, the basic elements of Soviet defense policy and practice thus far have not been changed by Gorbachev’s reform campaign.”<sup>103</sup>

The most significant gains were in ICBMs. In 1985, the Soviets introduced the road mobile SS-25. The SS-24 could be deployed either as a rail mobile missile (Mod 1) or in silos (Mod 2). This newer generation of ICBMs had begun replacing the SS-11s, SS-17s, and SS-19s. Although the SS-18 was still the key weapon in the Soviet lineup, the expectation was that, within a few years, half of the ICBM force would consist of mobile SS-24s and SS-25s.<sup>104</sup>

The new Soviet missiles (and some of the older ones) had a “cold launch” capability. This meant that the main engines did not ignite until the missile had cleared the silo, which could be refurbished and reloaded without a long delay. The Pentagon noted in 1982 that the cold launch technique “minimizes launch damage to the silo and is consistent with the notion of building in the capability to reload and refire missiles during a protracted nuclear conflict.”<sup>105</sup>

In the 1980s, the Soviets also strengthened their bomber force, which had been the least effective element in their strategic lineup. From Arctic bases, the Tu-22M Backfire could cover the entire United States with aerial refueling. The Tu-160 Blackjack, which entered the operational inventory in 1988, could cover the entire US without refueling.

The US force saw big improvements in the 1980s as well. The Peacekeeper ICBM achieved initial operational capability in 1986, although the Cold War ended before the eventual plan—to deploy it in a rail mobile mode—could be realized. Like the big Russian missiles, Peacekeeper had a cold launch capability. The B-1B bomber

<sup>101</sup> *Soviet Military Power, 1988*, p. 11-12, 69-71.

<sup>102</sup> John T. Correll, “Thirty-Seven Wings of the Best,” *Air Force Magazine*, April 1987.

<sup>103</sup> “At Cold War’s End: US Intelligence on the Soviet Union and Eastern Europe, 1989-1991,” CIA, 1999.

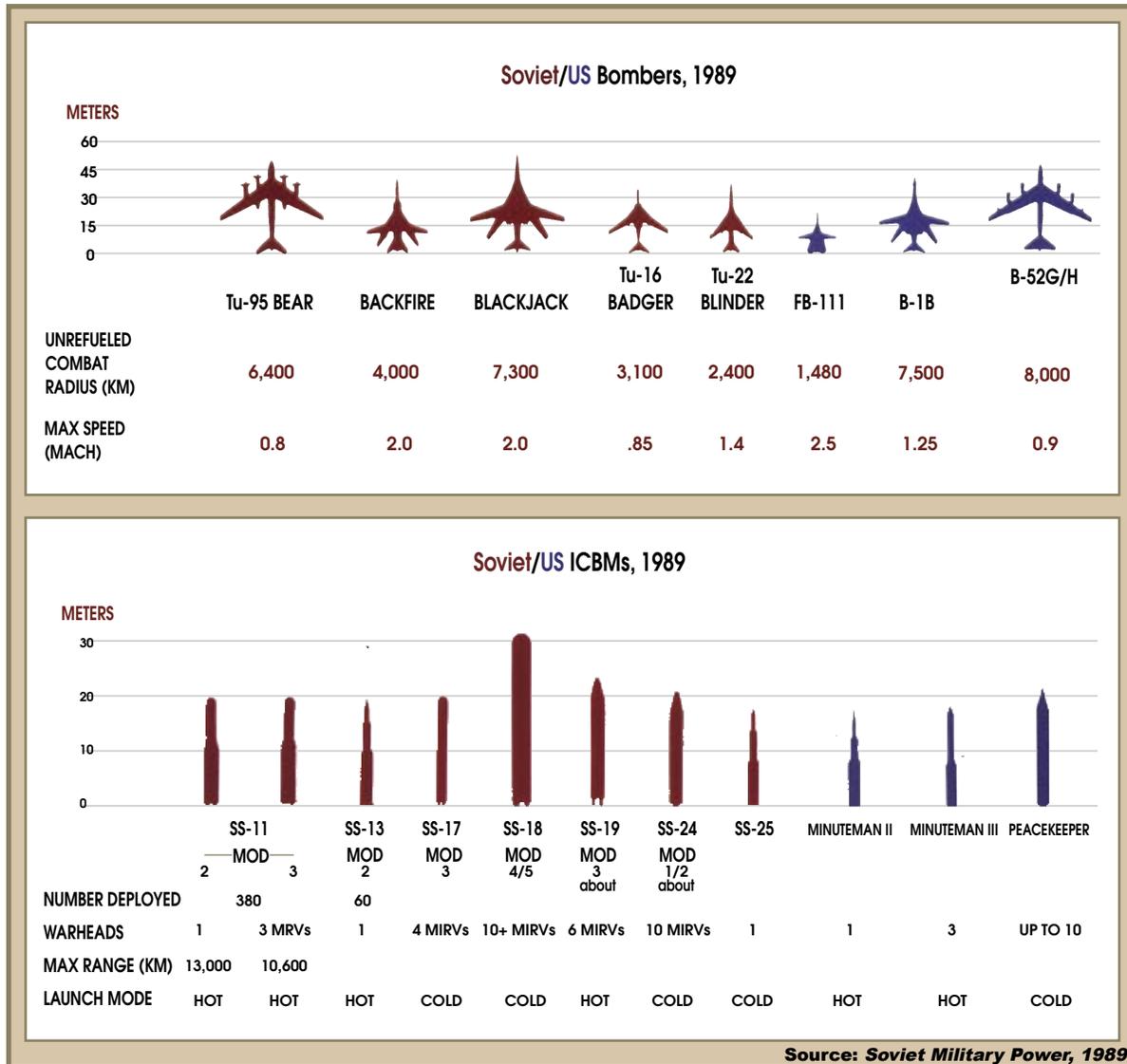
<sup>104</sup> *Soviet Military Power: Prospects for Change*. DOD, 1989, p. 45.

<sup>105</sup> *Soviet Military Power, 1982*, p. 56.

reached initial operational capability in 1986, and the stealthy B-2 made its first flight in 1989.

The defense budget increases of Reagan's rearmament program lasted only a few years, but they restored the vitality of the "hollow force." Research and development programs, begun

earlier, were creating a "Revolution in Military Affairs" with attendant gains in such areas as stealth, long-range precision strike, and information technology. All of this—along with the possibility of an SDI breakthrough—put enormous pressure on the Soviet Union.



# 11

## The Fall of the Soviet Union

Mikhail Gorbachev was elected general secretary on March 11, 1985, upon the death of Konstantin Chernenko. He represented the reform wing of the Communist Party, the protégés of Yuri Andropov, who preceded Chernenko as general secretary. Chernenko had been aligned with Brezhnev, during whose long tenure deep problems had developed.

The Soviet economy was a basket case, with large deficits, inflation, corruption, stagnation, and a shortage of basic commodities, including food. Among the causes, two stood out: the bureaucracy, controlled by party functionaries, was strangling the process; and the Soviet Union was spending more than it could afford on the military buildup.

US intelligence said the Soviets were spending 12 to 15 percent of their gross domestic product on military programs, but that estimate was low. Gorbachev, writing years later, said that in some years, Soviet military expenditures “reached 25 to 30 percent of our gross national product—that is, five or six times greater than analogous military spending in the United States and the European NATO countries.”<sup>106</sup>

The bureaucracy was still populated with holdovers from the Brezhnev era, and it was chiefly to loosen their grip on Soviet affairs that Gorbachev introduced his Glasnost (“openness”) reforms in 1985 and Perestroika (“restructuring”) in 1987. Glasnost brought visibility to government operations and some freedom of speech. Perestroika made adjustments to the economic system, enough to jolt the bureaucrats but not enough to achieve real results.

The other party leaders did not stop Gorbachev because they did not see where his changes were heading.<sup>107</sup> Gorbachev did not see that far ahead himself. His intention was to reform the system, not kill it.

Among other miscalculations, he underestimated the extent of dissatisfaction in the general population, in the client states, and in the non-Russian Soviet republics. According to an underground joke, the Soviet Union was the only country in the world surrounded by hostile Communist countries.<sup>108</sup> Once the changes started rolling, nobody, including Gorbachev, could stop them.

Gorbachev made a sustained effort, notably at the Reykjavik summit in 1986, to negotiate an end to SDI, but Reagan was unswerving in his commitment. Gorbachev later complained that “the notorious Strategic Defense Initiative” was “the continuation of the arms race into a different, more dangerous sphere.”<sup>109</sup>

Unable to stop SDI, Gorbachev turned to other measures, including the withdrawal of Soviet forces from Afghanistan and the reduction of the Soviet presence in the client states.

### Demise of the Pact

The Brezhnev Doctrine, which declared the right of the Soviet Union to intervene in the affairs of other Communist states, was becoming a millstone around Gorbachev’s neck. His efforts to mend relations with China were hampered because the Chinese were offended by the Brezhnev Doctrine’s implication that they were junior partners in Communism and subordinate to the Soviet Union.

Enforced obedience to Moscow caused trouble in Eastern Europe and elsewhere. “The interventions undertaken previously had turned into liabilities, Pyrrhic victories for us,” Gorbachev said in his memoirs. “That was the lesson of Hungary in 1956, Czechoslovakia in 1968, and Afghanistan in 1979.”

The Brezhnev Doctrine was not compatible with Perestroika, he said, and “once we began

<sup>106</sup> Gorbachev, *On My Country and the World*, p. 171-172.

<sup>107</sup> Simes, *After the Collapse*, p. 31-32.

<sup>108</sup> Jack F. Matlock Jr., *Autopsy on an Empire*. Random House, 1995, p. 77.

<sup>109</sup> Gorbachev, *Memoirs*, p. 405-407.

the process of reform, this increasingly determined our relationship with the leaders of the Socialist countries.”<sup>110</sup>

In an extraordinary speech to the UN General Assembly, Dec. 7, 1988, Gorbachev reversed the Brezhnev Doctrine.

“The principle of the freedom of choice is mandatory,” Gorbachev said. “Refusal to recognize this principle will have serious consequences for world peace. To deny a nation the freedom of choice, regardless of the pretext or the verbal guise in which it is cloaked, is to upset the unstable balance that has been achieved. ... Freedom of choice is a universal principle. It knows no exception.”<sup>111</sup>

He announced that the Soviet armed forces were being reduced by 500,000 troops and said that six divisions, 10,000 tanks, 8,500 artillery systems, and 800 combat aircraft would be withdrawn from the eastern part of the Soviet Union and “the territories of our European allies.”

After 40 years of Soviet domination, Eastern Europe was free to go its own way. Gennadi Gerasimov of the Soviet Foreign Ministry called it “the Sinatra Doctrine,” after the Frank Sinatra song, “My Way.”

One by one, the European “allies” chucked out their Soviet-controlled Communist regimes. The Berlin Wall was torn down in November 1989. The process of change was peaceful except in Romania, where dictator Nicolae Ceausescu was shot on Christmas Day in 1989.

The Warsaw Pact formally disbanded in July 1991.

## End of the USSR

The United States and the USSR signed the Strategic Arms Reduction Treaty in July 1991, but by then, the Soviet Union was on its last leg. Most of the republics wanted their independence, and the Soviet hardliners decided to oust Gorbachev in a desperate attempt to retain control.

A poorly organized coup failed in August, and shortly thereafter, the Communist Party of the Soviet Union was put out of business. Gorbachev retained the title of President of the USSR, but he had no real power, and he resigned on Dec. 25.

In his resignation speech, Gorbachev said, “When I found myself at the helm of this state it already was clear that something was wrong in this country. We had a lot of everything—land,

oil and gas, other natural resources—and there was intellect and talent in abundance. However, we were living much worse than people in the industrialized countries were living and we were increasingly lagging behind them. The reason was obvious even then. The country was suffocating in the shackles of the bureaucratic command system. Doomed to cater to ideology, and suffer and carry the onerous burden of the arms race, it found itself at the breaking point. All the half-hearted reforms—and there have been a lot of them—fell through, one after another. This country was going nowhere and we couldn’t possibly live the way we did. We had to change everything radically.”

He had assumed that the transition would take place later in appropriate ceremonies, but when he returned to his office, he discovered that during the 20 minutes he had been speaking, the Soviet flag had been lowered from the Kremlin and replaced with the Russian flag.<sup>112</sup>

The next day, the Supreme Soviet dissolved itself and repealed the 1922 declaration that had established the Union of Soviet Socialist Republics.

## After the Cold War

Arms control negotiations continued. The START II treaty in 1996 directed the phased elimination of the US Peacekeeper and the Russian SS-18 and SS-24. At a summit meeting in 2002, the United States and Russia agreed that each side would cut its nuclear stockpile to 2,200 or fewer deployed warheads by 2012.

So far, the Russians have eliminated more than half of the ICBMs they inherited from the Soviet Union. Their long-range plan is to field an ICBM force consisting completely of SS-27 Topol-Ms. The silo-based version of the SS-27 was introduced in 1997. The mobile version is not yet operational. The Topol-M is generally comparable to the Minuteman III.

The last of the Peacekeepers will be retired this year. After that, our ICBM capability will consist of the 500 Minuteman IIIs, which are still on alert. They have been refurbished with new propellant, and their old Mk 12 warheads are being replaced with the more advanced re-entry vehicles taken off the retiring Peacekeepers. Eventually, the 500 Minuteman IIIs will be armed with a total of 800 warheads (150 of the missiles with three warheads, the other 350 missiles with one warhead each).

<sup>110</sup> Gorbachev, *Memoirs*, p. 464-486.

<sup>111</sup> Wording in English varies by translation. This version is from the *New York Times*, as quoted by Walker, *The Cold War*, p. 309.

<sup>112</sup> Matlock, *Autopsy on an Empire*, p. 4.

<b>Soviet/Russian Nuclear Forces, Then and Now</b>		
	<b>September 1990</b>	<b>January 2005</b>
<b>ICBMs</b>		
<b>SS-11</b>	326	0
<b>SS-17</b>	40	0
<b>SS-18</b>	308	110
<b>SS-19</b>	300	140
<b>SS-24 (silo)</b>	56	0
<b>SS-24 (rail)</b>	33	15
<b>SS-25</b>	288	306
<b>SS-27 (silo)</b>	0	40
<b>SLBMs</b>	940	292
<b>Bombers</b>	162	78
<b>Source: Arms Control Association</b>		

*When the Soviet Union expired in 1991, there were strategic nuclear weapons in Russia, Belarus, Kazakhstan, and Ukraine. All remaining weapons have been transferred to Russia. The Russians are steadily eliminating the older ICBMs and plan a force consisting of silo-based and mobile SS-27 Topol-Ms.*

The United States has been careful to preserve a capability to attack and destroy hardened military targets. Writing for the Arms Control Association, Janne Nolan has said that “prompt counterforce remains the sacrosanct principle of American nuclear strategy.”<sup>113</sup>

Earlier this year, Robert S. McNamara denounced US nuclear weapons policy as “immoral, illegal, militarily unnecessary, and dreadfully dangerous.”

“For decades, US nuclear forces have been sufficiently strong to absorb a first strike and then inflict ‘unacceptable’ damage on an opponent,” McNamara said. “This has been and (so long as we face a nuclear-armed, potential adversary) must continue to be the foundation of our nuclear deterrent.”<sup>114</sup>

McNamara’s recollections and opinions aside, the United States has not depended on that kind of strategy for a long time.

No one knows where or when the next strategic nuclear challenge might arise, but the current triad of stealthy B-2s, improved Minuteman IIIs, and modern SLBMs is an effective deterrent against nuclear threats and it offers flexibility and options in time of crisis.

That, not assured destruction of the enemy’s cities, has been and still is the objective of US nuclear strategy.

## Cold War Legacy

There has been a trend in recent years to interpret the Cold War in a way that places as little blame as possible on the Soviet Union. It is said, for example, that Stalin’s postwar actions were purely defensive, stimulated in considerable part by his fear of American strength, especially after the use of the atomic bomb in 1945.

In fact, Stalin’s aggression began much earlier. He annexed the Baltic states in 1939 as part of his short-lived nonaggression pact with Hitler. He made it clear at the Tehran Conference in 1943 and at Yalta in 1945 that he intended to occupy the territory he had conquered in Eastern Europe.

Stalin showed no inclination to stop unless he ran into a military force stronger than he was prepared to handle. Churchill was probably right. Had it not been for the US nuclear deterrent, Stalin may have seized the rest of Europe. Stalin’s successors, especially Khrushchev, repeat-

<sup>113</sup> Janne E. Nolan, “Preparing for the 2001 Nuclear Posture Review,” Arms Control Association, November 2000.

<sup>114</sup> McNamara, “Apocalypse Soon,” *Foreign Policy*, May/June 2005.

edly attempted to enlarge the Soviet sphere of influence, particularly in Germany.

For the first 15 years or so of the Cold War—until the deployment of submarine launched ballistic missiles—the sole source of US nuclear deterrence was airpower. There is no denying that the leaders of Strategic Air Command could be arrogant in those days, but they carried a great responsibility and they delivered a lot of defense for the money. Besides, other services and commands could be arrogant as well.

From the 1960s on, US deterrence was embodied in the strategic triad of Air Force bombers, Air Force ICBMs, and Navy SLBMs. They maintained their alert until the Cold War was over.

The Cold War created a vast “requirements push” that led the US armed forces, especially the Air Force, to develop all kinds of new technologies and weapon systems. Without the Cold War, the ICBM, early warning satellites, and stealth would have been much longer in coming, if they had come at all.

A clamor arose in the early 1990s for the United States to disband the “Cold War legacy

force.” Critics said it was no longer relevant and should be replaced with something simpler and cheaper.

However, the continuing value of this legacy force—including both the new B-2 bomber and the old B-52—was soon demonstrated in places like the Persian Gulf, Bosnia, Serbia, Afghanistan, and Iraq. All in all, the “legacy force” proved to be a great asset for the nation in post-Cold War conflicts.

The Soviet Union was an evil empire. The Soviets consistently pushed for strategic superiority, beyond what they needed for defensive purposes. They exploited their power when possible. They interpreted conciliatory approaches as weakness and responded with contempt.

The Soviets acquired and held their allies by force. The captive nations bailed out at the earliest opportunity and joined NATO as soon as they could.

US airmen and others who took part in the long struggle are fond of saying, “The Cold War is over, and we won it.” And they did. They held Soviet power in check until it collapsed of decay and its own dead weight. ■

# Chronology

## The Air Force and the Cold War 1945-91

### 1945-49: Challenge and Containment

**May 8, 1945.** Germany surrenders. Red Army holds Eastern Europe, Balkans, and Eastern Germany.

**March 5, 1946.** Churchill says “Iron Curtain” has descended in Europe.

**March 12, 1947.** “Truman Doctrine” declares US support for Greece and Turkey to fight Communist insurgency.

**June 5, 1947.** Marshall Plan for recovery of Europe announced.

**July 1947.** “Containment” concept formulated by George Kennan in *Foreign Affairs* “X” article.

**Sept. 18, 1947.** The US Air Force becomes a separate service.

**1947-48.** Soviet Union converts East European nations into subservient Communist states.

**June 26, 1948.** The Berlin Airlift begins; ends Sept. 30, 1949.

**June 26, 1948.** Air Force receives first operational B-36 bombers.

**Feb. 26-March 2, 1949.** B-50 *Lucky Lady II* makes first nonstop flight around the world.

**April 4, 1949.** North Atlantic Treaty Organization created.

**May 23, 1949.** Federal Republic of Germany (West Germany) established.

**Aug. 29, 1949.** The Soviet Union explodes an atomic bomb.

**Oct. 1, 1949.** People’s Republic of China takes power.

**Oct. 7, 1949.** German Democratic Republic (East Germany) established.

### 1950s: At the Brink

**Jan. 31, 1950.** Truman orders development of the hydrogen bomb.

**Feb. 14, 1950.** Soviet Union and China sign treaty of alliance and mutual assistance.

**March 15, 1950.** The Joint Chiefs of Staff give the Air Force formal responsibility for development of strategic guided missiles.

**April 14, 1950.** NSC-68, the “blueprint for the Cold War,” prescribes US rearmament and containment of the Soviet Union.

**June 25, 1950.** Korean War begins.

**Oct. 25, 1950.** Red Chinese forces enter the Korean War.

**Jan. 1, 1951.** Air Defense Command, previously abolished, is restored to full status as a major air command.

**July 14, 1952.** The Ground Observer Corps begins its round-the-clock skywatch.

**Oct. 3, 1952.** Britain tests its first atomic bomb.

**Oct. 31, 1952.** The United States tests its first thermonuclear device.

**Dec. 9, 1952.** NATO adopts strategy 14/1; will rely on US nuclear weapons in defense of Europe.

**June 5, 1953.** B-47 bomber achieves initial operational capability.

**July 27, 1953.** UN and North Korea sign armistice agreement, producing cease-fire in Korea.

**Aug. 12, 1953.** Soviets explode a thermonuclear device.

**Oct. 30, 1953.** NSC-162/2 inaugurates the “New Look” strategy.

**Jan. 12, 1954.** Secretary of State John Foster Dulles makes “massive retaliation” speech.

**April 7, 1954.** Eisenhower formulates the “Domino Theory.”

**May 1, 1955.** Warsaw Pact created.

**May 5, 1955.** West Germany joins NATO.

**June 19, 1955.** B-52 bomber achieves initial operational capability.

**July 21, 1955.** Eisenhower proposes “Open Skies.” Soviets refuse.

**Nov. 26, 1955.** Pentagon gives Air Force operational control of ICBMs and all land-based missiles with range greater than 200 miles.

**Jan. 17, 1956.** DOD reveals the existence of SAGE, an electronic air defense system.

**July 4, 1956.** CIA U-2 reconnaissance aircraft makes first overflight of Soviet Union.

**Oct. 23-Nov. 10, 1956.** Hungarian Revolution suppressed by Soviet troops.

**Nov. 18, 1956.** Khrushchev tells West, “We will bury you.”

**May 23, 1957.** NATO adopts strategy 14/2, “Massive Retaliation.”

**June 11, 1957.** SAC receives first Air Force U-2.

**June 28, 1957.** SAC receives first KC-135 jet-powered tankers.

**July 31, 1957.** The DEW Line is reported to be fully operational.

**Aug. 1, 1957.** US and Canada form North American Air Defense Command.

**Aug. 21, 1957.** Soviet Union test-launches world's first ICBM.

**Oct. 4, 1957.** Soviet Union puts Sputnik, the world's first artificial satellite, into Earth orbit.

**Dec. 6, 1957.** The first US attempt to orbit a satellite fails when a Vanguard rocket loses thrust and explodes.

**Dec. 17, 1957.** First successful US launch and test flight of an ICBM, an Air Force Atlas.

**Jan. 31, 1958.** US finally places a satellite in orbit with Explorer I.

**July 15, 1958.** First major deployment (to Lebanon) of Composite Air Strike Force.

**Sept. 9, 1959.** Atlas missile declared operational by CINCSAC.

### **1960s: Superpower Standoff**

**Feb. 3, 1960.** France tests its first atomic bomb.

**May 1, 1960.** CIA U-2 is shot down over the Soviet Union.

**July 20, 1960.** First flight of Polaris, the first US submarine launched ballistic missile.

**Aug. 10, 1960.** First successful flight of Air Force/CIA Corona, the first US photoreconnaissance satellite.

**Aug. 17, 1960.** Joint Strategic Target Planning Staff created to coordinate targeting of Air Force ICBMs and Navy SLBMs.

**Jan. 6, 1961.** Khrushchev declares support for "wars of national liberation."

**Feb. 1, 1961.** Ballistic Missile Early Warning System operational.

**Feb. 3, 1961.** SAC's EC-135 Airborne Command Post "Looking Glass" begins operations.

**April 12, 1961.** Soviet cosmonaut Yuri Gagarin makes the first manned spaceflight.

**April 17, 1961.** CIA-supported Bay of Pigs invasion of Cuba fails.

**July 1961.** Fifty percent of SAC's bombers and tankers maintain 15-minute ground alert.

**Aug. 13, 1961.** Construction of Berlin Wall begins.

**Sept. 6, 1961.** National Reconnaissance Office created to operate intelligence satellites.

**Oct. 26, 1961.** US and Soviet tanks confront each other at Checkpoint Charlie in Berlin.

**Nov. 16, 1961.** Air Force's "Operation Farm Gate" commandos arrive in Vietnam.

**June 16, 1962.** Secretary of Defense Robert S. McNamara publicly announces “No Cities/Counterforce” nuclear targeting doctrine.

**Oct. 14, 1962.** Air Force U-2 obtains photographic evidence of Soviet ballistic missile sites in Cuba.

**Oct. 27, 1962.** First 10 Minuteman I missiles go on alert.

**Oct. 28, 1962.** USSR agrees to remove missiles from Cuba, ending Cuban Missile Crisis.

**Aug. 5, 1963.** Limited Test Ban Treaty signed by US, Great Britain, and Soviet Union.

**Aug. 30, 1963.** US and Soviet Union install round-the-clock teletype hotline between the Pentagon and the Kremlin.

**April 21, 1964.** The number of US ICBMs on alert pulls even with the number of bombers on alert.

**Oct. 15, 1964.** Khrushchev deposed, succeeded by Leonid Brezhnev.

**Oct. 16, 1964.** Chinese explode a nuclear device.

**Dec. 22, 1964.** First flight of the SR-71 Blackbird strategic reconnaissance aircraft.

**Jan. 1, 1965.** Air Force activates first SR-71 wing.

**Feb. 18, 1965.** Secretary of Defense McNamara announces change of strategy from “No Cities” to “Assured Destruction.”

**March 2, 1965.** Sustained air operations against North Vietnam begin.

**May 1965.** C-141A Starlifter, USAF’s first jet-powered transport, reaches initial operational capability.

**March 10, 1966.** France withdraws its armed forces from NATO.

**Jan. 12, 1968.** The Air Force announces a system for tactical units to carry with them everything they need to operate at “bare” bases equipped only with runways, taxiways, parking areas, and a water supply.

**Jan. 16, 1968.** NATO adopts strategy 14/3, “Flexible Response,” replacing Massive Retaliation.

**Aug. 20, 1968.** Soviet and Warsaw Pact armed forces stamp out “Prague Spring” political liberalization movement in Czechoslovakia.

**Nov. 12, 1968.** Brezhnev Doctrine: Soviet satellites must conform to Soviet direction.

**March 2-Aug. 13, 1969.** Soviet and Chinese forces clash along border in Asia.

**June 24, 1969.** NSDM 16 calls for “Strategic Sufficiency.”

**July 20, 1969.** US astronauts make first lunar landing.

## 1970s: Detente in a Dangerous Decade

**July 30, 1970.** Israeli Air Force shoots down five MiGs flown by Soviet pilots in Middle East “War of Attrition.”

**September 1970.** C-5 airlifter achieves initial operational capability.

**Dec. 16, 1970.** SAC receives first FB-111s.

**Dec. 30, 1970.** First squadron of Minuteman III missiles (with multiple warheads) becomes operational.

**Feb. 21-28, 1972.** President Nixon visits China.

**May 26, 1972.** SALT I and ABM treaties signed.

**Aug. 15, 1973.** Air Force aircraft fly their last combat missions of Vietnam War.

**Oct. 12-Nov. 14, 1973.** US Nickel Grass airlift resupplies Israel in the Arab-Israeli War.

**March 4, 1974.** Secretary of Defense James R. Schlesinger announces “Limited Nuclear Options” strategy.

**April 30, 1975.** Saigon falls to North Vietnamese forces.

**June 30, 1977.** President Carter cancels B-1A bomber program.

**Dec. 16, 1978.** US and China establish diplomatic relations. US transfers recognition from Taipei to Beijing.

**June 18, 1979.** SALT II treaty signed.

**Dec. 27, 1979.** Soviet forces invade Afghanistan and overthrow the government.

## 1980s: Confronting the Evil Empire

**Jan. 3, 1980.** Carter withdraws SALT II treaty from Senate consideration because of Soviet invasion of Afghanistan.

**March 31, 1980.** Air Defense Command inactivated.

**July 25, 1980.** Presidential Directive 59 establishes “Countervailing” strategy.

**Aug. 22, 1980.** Department of Defense reveals existence of stealth technology.

**June 18, 1981.** First (and secret) flight of the F-117A stealth fighter.

**Oct. 2, 1981.** President Reagan reinstates the B-1 bomber program.

**July 1, 1982.** US Air Force activates first ground launched cruise missile (GLCM) wing at RAF Greenham Common in England.

**Sept. 1, 1982.** Air Force Space Command is established.

**December 1982.** Air launched cruise missile reaches initial operational capability.

**Jan. 17, 1983.** NSDD-75 calls for rollback of Soviet power and expansionism.

**March 8, 1983.** Reagan delivers "Evil Empire" speech.

**March 23, 1983.** Reagan delivers "Star Wars" speech.

**Sept. 1, 1983.** Soviets shoot down KAL 007 airliner.

**Oct. 10, 1985.** The Peacekeeper ICBM reaches initial operational capability.

**April 15, 1986.** In Operation El Dorado Canyon, US Air Force F-111s take off in England, refuel in air six times, strike targets in Libya, return to base in England.

**October 1986.** Reagan holds to Strategic Defense Initiative at Reykjavik summit.

**Oct. 1, 1986.** B-1B bomber achieves initial operational capability.

**May 5, 1987.** The last Titan II ICBM is taken off strategic alert.

**Dec. 8, 1987.** US and USSR sign Intermediate-range Nuclear Forces (INF) treaty.

**Dec. 7, 1988.** Gorbachev reverses Brezhnev Doctrine.

**July 17, 1989.** First flight of the B-2A bomber.

**Nov. 10, 1989.** Fall of the Berlin Wall.

### **1990-91: Fall of the Soviet Union**

**July 24, 1990.** SAC ends more than 29 years of continuous Looking Glass airborne alert missions.

**Aug. 2, 1990.** Iraq invades Kuwait.

**Oct. 3, 1990.** East and West Germany reunify.

**Nov. 17, 1990.** Conventional Forces in Europe (CFE) treaty signed.

**Jan. 17, 1991.** Operation Desert Storm begins; ends with Iraqi surrender Feb. 28.

**July 1, 1991.** Warsaw Pact formally disbands.

**July 31, 1991.** US and USSR sign START agreement.

**Aug. 19, 1991.** Communist hardliners attempt coup in Moscow. It fails Aug. 21.

**Sept. 27, 1991.** US strategic bomber crews stand down from round-the-clock alert.

**Dec. 26, 1991.** The Soviet Union ceases to exist.

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