

CHAPTER 1

MILESTONES IN STRATEGIC ARMS CONTROL 1945-2000: AN OVERVIEW

James M. Smith

This book is about arms control, so it is most appropriate to begin with a discussion of arms control as a construct within United States national security policy during the Cold War and in its immediate aftermath. The classic description of arms control as a strategic policy construct remains that of Thomas Schelling and Morton Halperin in their seminal 1961 work, *Strategy and Arms Control*.

We believe that arms control is a promising . . . enlargement of the scope of our military strategy. It rests essentially on the recognition that our military relation with potential enemies is not one of pure conflict and opposition, but involves strong elements of mutual interest in the avoidance of a war that neither side wants, in minimizing the costs and risks of the arms competition, and in curtailing the scope and violence of war in the event it occurs.¹

The key elements of this definition of arms control are, first, that it firmly establishes arms control within the overall context of national security strategy. As a strategy instrument, arms control is an integral element of national efforts to enhance security, in this case as both a complement to and a substitute for more confrontational strategy elements. Second, and related, it establishes that security strategy involves both conflict and cooperation, side by side and often simultaneous, as overlapping stages of a single continuum. In such a deliberately ambivalent world, primary national security organizations can find themselves caught in the middle of these seemingly incompatible policy threads, and this was often the fate of the United States Air Force (USAF) across the Cold War and through to today.

So an examination of arms control and its implications for the USAF entails establishing the policy context of national security strategy and national military strategy—particularly nuclear strategy—and USAF development to support that strategy. The story of United States national security policy across the Cold War and into its immediate aftermath is very much the story of the continuous framework of containment. And the central dimension of containment was the US-Soviet strategic relationship. Thus,

implementation of United States national security policy focused on evolving nuclear strategy and, as the Cold War matured, on the accompanying process of arms control. This strategic dimension of policy and practice was also the central force shaping much of the development of the organization charged with employing most of the United States nuclear capability and with creating the infrastructure of nuclear force management, the USAF.

While a great deal of ink has been applied to documenting the containment framework as well as its implementing nuclear strategy and arms control details, and much has also been written on the operational aspects of USAF nuclear employment, the story of USAF involvement in and impact from the arms control process has not been fully captured.² This book represents a step toward documenting significant USAF arms control inputs and implications. As the nuclear-experienced USAF retires and as the blue-suit arms control insiders move on to other careers, it is important to capture their story as legacy to the much smaller follow-on generation that constitutes the contemporary strategic USAF. And it is critical to explain both the intended and unintended consequences of national arms control decisions to current and future decision makers who themselves are novice to strategic systems and to the nuclear dimension of United States force posture. This introductory chapter sets the national context within which USAF arms control practice occurred and then overviews the approach of the sections and authors that detail the four periods of arms control and USAF practice across the period 1945-2000.

NATIONAL SECURITY STRATEGY, NUCLEAR STRATEGY, ARMS CONTROL, AND USAF DEVELOPMENT, 1945-2000

It was stated earlier that the story of United States national security policy across the Cold War and even into its immediate aftermath is very much the story of the continuous framework of containment and its central dimension, the US-Soviet/Russian strategic relationship. But it is also very much the story of varied and changed approaches to implementation of containment. Implementation has swung back and forth between more cooperative and more confrontational emphases in the US-Soviet/Russian strategic relationship, often with the USAF caught squarely in the middle with one foot on each side of that balance. Beyond and beneath the specific implementing national security strategy of the day, two primary elements of implementation of containment have been nuclear strategy—an expressly confrontational element—and arms control—a generally more cooperative element. The USAF has been the primary institution responsible for implementing United States nuclear strategy, with a “push” effect toward

weapons, programs, and capabilities to deepen active deterrence and enhance strategic posture. The USAF has also been, by extension, the primary institution targeted and limited by arms control strictures, with a “pull” effect to ensure strategic stability and constrain subject systems. Within that context, the following discussion presents a broad overview of the period of the Cold War and its immediate aftermath. For each of the specified periods, the discussion addresses the United States national security strategy or strategies selected to implement containment of the Soviet Union/Russian strategic power across that period, the implementing nuclear strategy/strategies and the contemporary developments in arms control of the era, and the net effects on USAF development resulting from the combined pushes and pulls of the time.

1945-1968, Military Containment

The period 1945-1968, or from the close of World War Two to the height of American involvement in Vietnam, became the era of military confrontation and implementation of containment via military means. It was also the high point of US nuclear-centered strategy and the era of growth and dominance of the Strategic Air Command (SAC). National security strategy and nuclear strategy combined for a significant push effect on the USAF via SAC, and arms control as a nascent policy adjunct still awaited the evolution of confidence and technology that would propel it to the forefront of US-Soviet relations. This was the necessary and important foundational period for the arms control focus and activity that was to follow.

National Security Strategy: The concept of containment at the heart of United States national security strategy actually predates the Cold War. The Soviet Union was our “ally of necessity” in World War II, but the United States and other western leadership recognized that the Soviet combination of history and ideology dictated a cautious approach after the war. The United States vision for the post-war world was for an era of peaceful cooperation and recovery with security ensured by the “four policemen;” the United States, Great Britain, the Soviet Union, and China. This desired stability would be accomplished by a strategy of “containment by inclusion” or integration, bringing the Soviet Union fully and equally into the “normal” community of nations. This would be accomplished largely through economic assistance and diplomacy. But Soviet intransigence at every turn led the United States to search for an alternative implementation strategy, or one of “containment by isolation.”

From its philosophical political-economic roots in the arguments of George Kennan to its blueprint for military implementation in NSC-68,

containment was built to both limit and channel Soviet behavior toward eventual conformation to western norms and structures. Of the "four policemen," now joined by mainland Western Europe into five "power centers," only the USSR was seen as antagonistic and obstructionist. China remained weak and relatively peripheral, so the early policy focus was on shoring up the psychological strength while rebuilding Great Britain and Europe. Early efforts sought to include the Soviets, including direct recovery programs such as the Marshall Plan and more symbolic efforts such as granting the USSR great power stratus in the United Nations (UN). But the balance of President Truman's "patience and firmness" approach was tilted by events across 1948 and 1949 such as the rise to power of the Communist Party of Czechoslovakia, the blockade of Berlin, the Soviet test of an atomic bomb, and the "fall of China" to Mao Tse-tung.

The balance shifted toward firmness and isolation, as evidenced by the Truman Doctrine's promise of all assistance, including military, to states on the Soviet periphery who were threatened by Communist insurgency, and by the formation of the directly counter-Soviet North Atlantic Treaty Organization (NATO). The United States policy review NSC-68 found that the USSR represented a significant and direct military threat, and it recommended the constitution of an unprecedented United States peacetime military capability to implement military containment of the USSR. This recommendation and its hefty price tag were subject to some heated debate in Washington until the outbreak of hostilities in Korea, which were taken as validation of the NSC-68 argument. At that point the balance had fully shifted to the firmness and isolation end of the spectrum, and all elements of United States strategy followed suit.

Implementation: Nuclear Strategy: The United States enjoyed a nuclear unipolarity for the first few years after Hiroshima. During those years nuclear weapons were primarily viewed as they had been in World War II, as a war-ending ultimate military weapon to be used in widespread conflict. With the militarization of containment, the lack of the force structure needed to confront the USSR conventionally, and the economic imperatives and policies of the Eisenhower Administration, the United States shifted toward a nuclear strategy based on overwhelming nuclear retaliation in response to any significant military confrontation. Eisenhower's "New Look" policy of massive strategic retaliation was later augmented with smaller, "tactical" nuclear weapons intended for employment on the European battlefield, but it remained almost totally nuclear at the effective heart of United States strategic posture—also the heart of containment implementation.

Finding the choice between nuclear options and no effective military options unacceptable—particularly if the strategic nuclear options could be

called into doubt in the aftermath of Sputnik—the Kennedy Administration set upon the course, to be carried forward by President Johnson, of building a wider range of military capabilities. The goal was to ensure the president would have the flexibility to respond in a manner of choice, and not be locked into a single option—particularly from a nuclear-only option set. United States involvement in Vietnam both reflected and delayed the creation of this full-spectrum option set, but the course was set to continue across the middle and late stages of the Cold War.

Implementation: Arms Control: In the immediate aftermath of World War II, the United States was still led by the same individuals who had provided strategic leadership to the endgame of that great conflict—Truman, Marshall, Arnold to name just a representative three. Their experience prompted them to seek global and cooperative answers to the highest challenges of the day. They launched historic efforts and built enduring institutions—the Marshall Plan, the UN, and NATO for example. Thus, they also agreed to at least seek a solution to the nuclear dilemma through global and cooperative means. In the Baruch Plan they proposed internationalizing nuclear capabilities under the UN, only to see those efforts rejected by the USSR. Their immediate successor generation of American leadership grew up in the operational environment of the war, and they were somewhat less global and cooperative in their approach to strategic issues, and particularly in their approach to the Soviet Union.

This group, from Eisenhower on, moved forward in an atmosphere of caution, seeking certain guarantees and sure verification for any diplomatic agreement. And while such certain verification means were being developed and some regularity in US-Soviet diplomacy built, they sought to bound the nuclear arena, limiting the nuclear players and setting the parameters, laying the foundations for a continuing future nuclear arms control process as technology and trust might allow. While much of their effort was given impetus by a series of crises (from the U-2 incident to the Bay of Pigs, and from confrontations over Berlin to the Cuban Missile Crisis), they created structures such as the International Atomic Energy Agency and the US Arms Control and Disarmament Agency to provide focus and an implementing structure. And they bounded both the global and bilateral nuclear arena through such early agreements as the Nuclear Non-proliferation Treaty and the Limited Test ban Treaty. Thus, they built a foundation and focus for a continuing arms control process even as they built weapons to ensure security in the absence of successful diplomacy. And they built reliable national technical means (NTM) of arms testing and deployment verification that would not rely on on-site inspection to enable diplomacy should other conditions allow for agreement to limit arms.

USAF Development: The United States Air Force was established as an independent Service in the wake of its largely strategic experience in the later days of World War II and based on the legacy of its band of strategic, independent operations advocates dating from early in the interwar period. Even with its tactical involvement in Korea, it was centered on building strategic capability, superiority, and deterrence. This mission centered on the growth and dominance of the Strategic Air Command (SAC), which was both an Air Force organization and, as a Specified Command, a national warfighting command. SAC quickly became the preeminent USAF core, with its leaders rising to command the USAF, and its pursuit of the Single Integrated Operations Plan (SIOP—the United States nuclear target list and war plan) by eventually developing and fielding its implementing TRIAD strategic posture of manned bombers, intercontinental ballistic missiles, and submarine-launched ballistic missiles. Secondary USAF focus fell on North American air defense and the theater air component of NATO.

Early technological limitations gave focus to countervalue, or non-precision, and strategic nuclear capabilities augmented by theater counterforce weapons and delivery vehicles. Lessons learned from lacking precision delivery capability in Vietnam spurred ongoing technical development toward the production of precision delivery weapons and platforms for the full range of conventional, theater nuclear, and intercontinental aircraft and missile employment. Other USAF development efforts centered on improved early strategic attack warning and air defense, and on global command and control to support warning and defense, and centrally on global positive control during SIOP execution. The USAF was born and developed as a centrally and overwhelmingly strategic force.

Military Containment Period Summary: The early Cold War focus, then, saw a shift from containment of the Soviet Union by offers of integration to containment by isolation centered on military implementation. The United States carried out this strategy by first building and relying on its nuclear arsenal, only later beginning to build a full range of conventional to nuclear response capabilities. The United States-Soviet strategic relationship was not mature enough, nor were technical means of verification reliable enough, to allow direct arms control agreements that would limit or reduce systems. The focus, instead, was on bounding and defining the field while building verification means and diplomatic trust, as well as rudimentary international and national organizational structures, as a foundation for future efforts. In and from the confrontational push of this environment, the USAF developed as a strategic force, centered on SAC and led by SAC-developed Chiefs.

1969-1980, Detente

The period 1969-1980 saw the drawdown and end of the American presence in Vietnam, the pursuit of detente and heightened cooperation with the USSR, and active progress on strategic arms limitations. It was also an era of significant technological advance in every area of strategic arms. Thus the USAF found itself pushing the development of these advanced systems and almost simultaneously "pulling their punches" through limitations on their deployment or even outright cancellation. These crosscutting pressures represented the confluence of several factors in security strategy, nuclear strategy, and arms control. They also prompted the USAF to organize for and involve itself more actively within the arms control process.

National Security Strategy: The era of detente began with several decisions in the Nixon Administration. First, as formally represented in the Vietnamization program and the Nixon Doctrine, the United States modified its relatively unqualified and military focused assistance to governments fighting Communist-inspired insurgencies. This served to moderate the confrontational approach to Soviet activities and policies. Second, there was an acceptance of the attainment of a state of nuclear balance resulting in the reality of mutually assured destruction, or MAD. The Soviets had been building their strategic forces while the United States was fighting in Vietnam, and rough nuclear parity was the result—the United States had lost its clear advantage, and a new and more equal relationship had to be forged. The result was a move to detente, or containment through a mix of confrontation and cooperation, with actions in one arena linked to rewards or penalties in the relationship in that as well as other arenas. A final key factor here was China. Once seen as fully entrenched in the Soviet camp, this important power center was now seen as an independent actor, allowing United States policy more wide-ranging flexibility.

Presidents Ford and Carter continued the detente focus across the 1970s, with Carter adding particular emphasis to the place of the Middle East in American policy and seeking to reduce confrontational pressures in that vital region. The period was not without confrontation, but after the 1973 Arab-Israeli conflict, the arenas of conflict moved primarily to the periphery of the superpower relationship (Africa, Latin America). However, this era of detente ended in 1979 with the seizure of the American embassy and its staff in Tehran, which demonstrated the relative inability of the United States to influence rebellious regimes even in a vital region, and the movement of the Soviet Red Army into Afghanistan, its first incursion outside of the bounds of the Warsaw Pact. These events—increased Soviet adventurism coinciding with demonstrated American military weakness—prompted a reversal of

United States policy, and a return to hard-line confrontation of the Soviet Union.

Implementation: Nuclear Strategy: Under detente United States nuclear strategy did not retreat from MAD. Instead it evolved within the MAD construct under a steady stream of technological improvements, the development of advanced systems and concepts, and a shift enabled by these capabilities toward counterforce targeting and a countervailing strategy. Advanced systems such as the B-1 bomber, the MX missile, space systems, precision delivery systems, and the neutron bomb were under development while others such as multiple independently targetable reentry vehicles (MIRVs) were refined. Research and development also progressed on advanced conventional capabilities to augment strategic systems in fulfilling the development of a full-spectrum force posture.

The net result of these advances was to provide counterforce capabilities sufficient to allow the United States to evolve its nuclear strategy from its overwhelming emphasis on countervalue targeting for second-strike deterrence to a countervailing strategy designed to present the Soviets with the firm conviction that they could not win in any circumstances should nuclear conflict erupt. The United States' range of capabilities to strike both military systems and societal infrastructure would ensure Soviet failure in any exchange. This increased flexibility and range of options allowed American presidents a much more complete "quiver of arrows" to enhance deterrence, even if to critics it made nuclear war fighting somewhat more plausible.

Late in this period, crosscutting decisions by the United States unilaterally and with its European allies represented the complexity of the issues and influences within this strategic realm. President Carter cancelled both the neutron bomb and the B-1 bomber programs, self-limiting future technical advances in these two areas. On the other hand, NATO's dual-track decision on intermediate-range missiles—to both complete development and deploy the systems even while continuing negotiations toward limiting them—advanced Western capabilities at least in the short term in this theater-strategic arena.

Implementation: Arms Control: The combination of generally reduced bilateral tensions with the reality of essential nuclear parity, plus the attainment of technological advances such as those cited above, all combined to provide the incentive toward active negotiations to limit future growth and advances in strategic systems. This move into active bilateral arms controls was both enabled and limited by the technical capabilities of remote verification—national technical surveillance, primarily from space-based systems. Earlier arms control efforts had hung up on compliance verification

concerns after Soviet refusals to consider intrusive on-site inspections, then the only means by which to confidently assure compliance. NTM development and certification represented an alternative that would allow negotiated limits on deployed launch vehicles with assurance of verifiability. This provided the agenda and the bounds for the Strategic Arms Limitations Talks (SALT) and eventual series of agreements.

Thus, this period saw extensive, protracted, bureaucratic, and highly detailed negotiations—with a central focus on verifiability—leading to SALT I and its adjunct Anti-Ballistic Missile (ABM) Treaty, freezing strategic systems in the short term and significantly bounding the development of strategic defenses which were then seen as destabilizing MAD. Ultimately the SALT process led to more significant limitations in SALT II, extending and deepening limits on launch vehicles and incorporating limits on sub-systems such as MIRVed warheads and air-launched cruise missiles. The period also saw continuation of the earlier period's focus on limiting nuclear testing, with completion of agreements establishing limitations on underground nuclear testing for both weapons and "peaceful" nuclear explosives. Finally, progress was also seen in the continuing efforts to stem proliferation of nuclear weapons and development of biological weapons. This was indeed an active period of both bilateral and multilateral arms control.

USAF Development: The USAF during this period found itself squarely in the middle of significant technological advances, political pressures toward détente and reduced superpower tensions, and a maturing arms control process enabled by the verification capabilities of NTM systems. The technological push to field advanced systems, the continuing imperative of assuring the capability to fulfill the demands of the SIOP as the foundation of détente, and the organizational centrality of the power of SAC—both as a Specified Command and as the breeding ground of USAF senior leadership—moved the USAF in one direction.

At the same time, arms control advances and agreements, coupled with selected cancellation of systems development, pulled the USAF in the opposite direction, and the service slowly began to adapt to this environment. USAF reaction to early arms control experience—SALT I and ABM—in which the Service had no formal role or representation, was to designate a small formal organization within the Air Staff to advise the Chief of Staff, enabling a more assertive say in the development of United States negotiating positions. This more active role would continue until the end of the Cold War.

The experience of Vietnam also heavily influenced the USAF. The Service began a fundamental transformation from its almost singularly

strategic focus toward a strategic-operational balance, beginning the development of "effects" delivery doctrine and systems, elevating the Tactical Air Command (TAC) and its operational focus and leaders toward the creation of the balanced force that would fly to impressive results in the 1990s. With the return to more direct confrontation of the USSR at the end of this period, the stage was set to field the force that we know as today's USAF.

Détente Period Summary: The mid-Cold War period was characterized by the move to reduce the United States presence in Vietnam, the attainment of rough strategic parity and MAD, and the move to reduce bilateral tensions and move from confrontation into greater cooperation via détente. It saw the maturation of a protracted and productive arms control process, both enabled and bounded by NTM verification capabilities, that led to limitations on both strategic offensive and defensive systems. Soviet aggression in 1979 capped the era of détente and this "first generation" of arms limitations. As a result of these events, the United States returned to a hardline containment by confrontation, seeking to redefine the relationship, and arms control was returned to square one—addressing confidence building and agenda setting in preparation for an eventual second generation of arms reductions. The USAF found itself pushed to field advanced systems and pulled to limit, even cancel, their production and fielding. This push-pull effect caused the Service to begin to organize for and play a more active role in arms control.

1981-1988, The Reagan Endgame

Ronald Reagan came to his presidency committed to redefining the US-Soviet relationship in terms more favorable to the United States. He sought a new beginning in the superpower relationship, one based on the reaffirmation of American strength and resolve, and then—and only then—the establishment of a new generation of equitable, verifiable strategic arms reductions that would be certain to enhance, not degrade, United States national security. The USAF, recipients during this period of significant advances in strategic and conventional arms, asserted itself as an important arms control player, protecting the national assets and interests that were granted to its control, in active partnership within the bureaucratic process.

National Security Strategy: The Reagan Administration sought to move away from what it saw as the stagnation of "containment" policy as it had been practiced. Their "beyond containment" construct was founded on what the administration called "credible deterrence" and "peaceful competition." Implementation here was via a defense buildup beginning with a wide-ranging strategic modernization program to reaffirm to the Soviets that any

nuclear conflict could only lead to destruction. Once strategic stalemate could be reasserted through primarily confrontational means, then the policy could pursue a range of more cooperative efforts to advance the overall relationship. This cooperative thread did not necessarily seek to move far toward the "friendship" end of the spectrum, but instead recognized that a state of competition short of confrontation could endure into the long term. The criteria for both credible deterrence and peaceful competition revolved around clear enhancement of United States national security—all policy elements were measured against that single end.

The Reagan era started, then, in confrontation. This status endured across the late stages of the Breshnev leadership in Moscow and also across the short tenures of his immediate two successors, both of whom died shortly after assuming office. Finally, with the generational and philosophical change in Soviet direction that arrived with Gorbachev, the first stages of less confrontational competition could begin. The United States had regained the confidence of strength, and the USSR had faced the reality of their overextension. This allowed the beginnings of a revised strategic relationship, the establishment of a new round of arms controls—this time toward true reductions, even elimination, of weapons and systems—and eventually the complete redefinition of global politics.

Implementation: Nuclear Strategy: As stated, the departure point for the Reagan efforts was in a program of strategic modernization to reassert the nuclear capabilities underpinning America's deterrence posture. The visible systems enhancements here were the rebirth of the B-1 bomber program, the development of the B-2 stealth bomber, the fielding of the MX missile, and the development of the D-5 enhanced submarine-launched ballistic missile, and the land-based theater missiles that were to make up the NATO theater intermediate-range nuclear force (INF). The development and fielding of these technologically advanced, precision-capable systems provided the United States with a true countervailing capability (some would say even a warfighting capability) to firmly convince the Soviets of the futility of seeking nuclear advantage through conflict.

On top of this strategic modernization effort and its follow-on conventional modernization corollary, the administration also added the concept of strategic defenses back into the mix. The Reagan Strategic Defense Initiative (SDI, or popularly "Star Wars") added this second dimension to the strategic calculus, it complicated and extended the arms control negotiations process as the Soviets sought to get SDI on the negotiation table, and it provided additional leverage to the United States in every phase of the bilateral relationship.

Implementation: Arms Control: The United States-Soviet arms control process had matured through its first generation of agreements (SALT) into an established, protracted, and bureaucratic process, but it had also reached the verifiable limits that could be provided solely by NTM. The necessary pause to consider next steps in verification coincided with the American return to confrontation and the Reagan strategic modernization. In short, arms control returned to step one. This establishment of its second generation constituted the focus of strategic arms control across this period. The only final agreement was the INF Treaty that, after the beginning of American missile deployments into NATO countries, withdrew and effectively eliminated the entire class of weapons. Other than that final agreement, the focus was on the process of arms control. This process-building was less visible than the series of hard products from the previous period, or of the even larger series of products which would follow. However, it was an important period and it left an important legacy.

Hard agreements awaited the establishment of a new level of confidence and self-security on each side. Thus, the period saw wide-ranging negotiations, starts and stops, talks withdrawals then summits and resummptions, and the completion of a whole series of peripheral agreements that increased contact and confidence (titles like Early Notification of Nuclear Accidents, Nuclear Risk Reduction Centers, Ballistic Missile Launch Notification, Dangerous Military Activities Prevention, and Notification of Strategic Exercises). From all of this eventually came the agreement in principle to accept on-site inspections as a necessary precondition to any START agreement, and a focus on verifiable reductions of systems and capabilities as the center of the START process. This amounts to very serious and very consequential arms control activity, all with ultimate impact on the USAF.

USAF Development: This period was the highpoint of Cold War USAF development—the ultimate push—and also of capability to influence the arms control process—and its pulling back of that capability. The USAF and its SAC constituency had always sought capabilities to enhance its central SIOP and deterrence missions. Added to this focus, after Vietnam the USAF had sought development of technologically advanced conventional systems to ensure a full range of effects, with versatile and precision weapons and platforms rivaling at least the lower-yield end of the nuclear arsenal. The USAF that would fight over Iraq and Kuwait, Bosnia, Kosovo and Yugoslavia, was brought to operational status during this period. And the USAF that had failed to influence SALT I and ABM, that had organized to have a say in SALT II, had a team in place to act as an important full partner

within the bureaucratic process that crafted US arms control positions for START.

Endgame Period Summary: The Reagan presidency was an important period for the USAF. It was the period during which new systems came on board to truly give the Service a full-spectrum of capability. It was also an important period for arms control, not in terms of completed agreements, but in terms of implementing a process through which a renewed United States and a subdued Soviet Union—also under new leadership—could go forth into the next period toward real arms reductions. Finally, it shaped the transition to what would become the end of the Cold War and usher in a completely new context of national security.

1989-2000, Late and Post-Cold War Transition

The first Bush Administration saw the fall of the Berlin Wall, the end of the Cold War, the immediate disorder represented by the Gulf War, and the ultimate deconstruction of the Soviet Union. This series of unprecedented events, and those across the Clinton Administration that followed, set the stage for both the culmination of the United States-Soviet strategic endgame and the introduction of entirely new dimensions and directions for security strategy, nuclear strategy, and arms control. And all of these changes were reflected in impacts on the structure, capabilities, and influence of the USAF. This period, then, demonstrates the fruition of earlier processes and efforts, and it points toward the next step to be prepared for and faced by the Service now finding itself at the pointed end of both the American strategic and conventional spears.

National Security Strategy: The precipitous decline and fall of the Soviet bloc, and particularly the widespread reappearance of ethnic unrest and regional conflict that followed, led the United States to shift rapidly from a security strategy focused on East-West relations to one centered on the world's regions. George H. W. Bush initiated this shift, and the Clinton Administration formalized it into a strategy of global engagement. This new focus obviously entailed a reversal in emphasis from strategic systems' primacy toward primary requirements for conventional capabilities. However, the Soviet strategic arsenal remained in the field, and after consolidation became the Russian arsenal. This presented the United States with the requirement to fully address a superpower-capable nuclear dimension even as it shifted operational focus to a point much lower on the spectrum. Nuclear strategy had to continue a strong role, at least until or unless arms control could find alternative avenues to ensure strategic

security, and the USAF continued to face requirements, pushes and pulls, in both the nuclear and conventional arenas.

Implementation: Nuclear Strategy: Nuclear strategy did not end, nor did nuclear deterrence responsibilities, with the end of the Cold War. Nuclear deterrence, along with its added strategic defense dimension, remained a centerpoint of United States-Russia relations, and strategic systems also began to take on important roles in deterring or guaranteeing response to a range of nuclear, chemical, and biological weapons threats emanating from regional powers. Arms control agreements and unilateral initiatives effectively changed the nature of our posture—with cuts, consolidation, and changes to alert status—but the strategic requirements of national security continued as a central dimension of the USAF role and mission.

Implementation: Arms Control: The START process finally delivered during this period, with the formalization of the START I and START II agreements. The period also saw negotiations toward a possible START III agreement and discussions about how to end the restrictions posed to national missile defense by the ABM Treaty—discussions with significant possible limiting effects on USAF programs and systems. The bilateral process had become so mature that it hardly saw a blink with not only the end of the Cold War, but also the end of the Soviet Union. President Bush made the symbolic and substantive first step of offering a Presidential Nuclear Initiative (PNI), or unilateral cut or restriction in strategic arms, and in turn both Gorbachev and then Yeltsin reciprocated. United States-Soviet Union Cold War arms control became post-Cold War and then United States-Russia arms control with barely a hiccup.

The scope of arms control did, however, change after the Cold War. First, the United States aided Russia in consolidating its ownership and control of the strategic nuclear weapons and systems that had been deployed across four Soviet republics. Then the two sides jointly implemented programs to withdraw and stockpile or destroy weapons. For the United States, this meant both instituting stockpile safeguards for its own warheads and helping the Russians control and safeguard their warheads. Much of both of these programs fell to members of the USAF, as did other aspects of implementing START.

At the same time, the field of strategic arms control focus widened, with heightened international efforts to control biological and chemical weapons proliferation, and with new dimensions added to nuclear control and counterproliferation efforts with the demonstrations of India's and Pakistan's nuclear capabilities. Further, the non-strategic arms control arena gained prominence through the completion of a Conventional Forces Europe Treaty and its adjunct agreements such as Open Skies. Here again, the USAF found

itself as a player in implementing these agreements, and it continued to find the need to have a voice in their negotiation. But with the end of the symbolic centrality of the Cold War, the United States disbanded the ACDA, shifting its responsibilities (and downgrading them in the process) to a number of bureaus within the State Department. And the USAF, facing budget cuts and changed priorities, began to draw down its structure and capability to influence the widening process of arms control.

USAF Development: By this period, the USAF was no longer a centrally or even primarily "strategic" Service in the sense that strategic equals nuclear—it retains its focus on air power as a "strategic" asset in the sense of strategic meaning theater or even global in scope and focused on winning wars rather than battles. The modern USAF focuses on delivering decisive military effects, including strategic effects from conventional platforms and operational effects from strategic platforms. This transformation has been accompanied by the replacement of the SAC-groomed leadership of the Service by generals who rose to power through the tactical and operational—albeit usually also NATO and non-strategic nuclear weapons—path. And perhaps the ultimate change was the replacement of the USAF Specified Command SAC by the Unified Strategic Command (STRATCOM). USAF strategic systems were reassigned, with bombers joining fighters in the Air Combat Command and missiles joining space launch vehicles and satellites in the Air Force Space Command. Thus, the path into the USAF arms control structure was altered, even ended, and that structure itself began to draw down in numbers and capabilities, shifting much of its focus to implementation of in some cases severely limiting arms controls rather than to influencing the arms control process.

The period ends with the USAF established as, arguably, history's most capable fighting force. Yet the Service's strategic structure is divided and reduced. As a result, it is less capable of exerting influence on the very process that holds both its future and its ability to fulfill what must remain its most essential mission element—nuclear deterrence and defense—in balance.

Table 1 graphically summarizes this entire Cold War context and these themes as transition to the book's detailed coverage of strategic arms control and USAF roles and outcomes across the Cold War and into its transitional endgame. Arms control continues today, and will continue tomorrow, to greatly influence USAF structure, posture, and capability. Therefore, the parallel developments of arms control and the USAF remain salient to the current and future generations of USDAF leadership. They deserve your study.

Table 1: Milestones in USAF Arms Control 1945-2000: Overview Summary

Period	Security Strategy	Nuclear Strategy	Arms Control	USAF Outcomes
<p>1945-1968 -<u>Conceptualization</u></p>	<p>-Containment by Integration (United Nations, Marshall Plan) vs Containment by Isolation (Truman Doctrine, NATO)</p>	<p>-Warehousing Strategy; H-bomb and basic technologies advanced</p>	<p>-No foundation, process, confidence -Unilateral operational world, unilateral “bounding” proposals (Baruch Plan)</p>	<p>-Net effect a confrontation push—SAC formation and development</p>
<p>----- -<u>Korea to Vietnam</u></p>	<p>-Military Containment based in NSC-68 analysis and spurred by US perception of Korea and Soviet actions</p>	<p>-New Look/Massive Retaliation reliance on strategic nuclear forces in countervalue role -Flexible Response increased the full range of military options for direct and indirect responses to Soviet challenges; added some counterforce focus</p>	<p>-Crises (U-2, Bay of Pigs, Berlin Wall, Cuba Missile Crisis) spurred deepening of the negotiation process -Products still toward limiting and bounding field (LTBT, NPT) -Little confidence, only rudimentary process, only limited transparency and verification capability</p>	<p>----- -Early warning/air defense system development -TRIAD development -Missiles, MIRVs -JSTPS and SIOP -Precision toward counterforce capability</p>

Period	Security Strategy	Nuclear Strategy	Arms Control	USAF Outcomes
1968-1980	-Detente focus toward balance of confrontation and cooperation; broadening role of economic instrument; broadening of containment field	-Technological advances in both strategic and conventional systems -Counterforce additions to strategy toward a full countervailing strategy in face of nuclear parity	-Residual. continuing focus on limiting/bounding field (TTBT, PNET, and nonproliferation/BWC) -Focus within existing field enabled by NTM capabilities and confidence -Bilateral focus on graduated limitations of future capabilities (SALT I and II, ABM)	-Strong push, particularly with technical advances (B-1, MX, precision, space) -Beginnings of strong pull from detente cooperation, arms control agreements, (ABM, SALT I/II) and unilateral decisions (neutron bomb, MX basing, B-1 initial cancellation)
1980-1988	-“Beyond Containment” focus on confrontation in the absence of detente reciprocity; cooperation where warranted by prospects for success and enhanced US national security	-Strategic modernization to strong countervailing base (B-1, B-2, D-5, INF) systems -Strategic offense and defense both emphasized (SDI)	-Drawn-out negotiation process combining direct competition and moderation, aimed at reducing and/or eliminating existing systems as well as limiting growth and advances -Example: both INF systems deployment and INF treaty/systems removal and destruction	-Expanded strategic and conventional systems, innovations (stealth, precision), foundation for new dimensions (space, information)

Period	Security Strategy	Nuclear Strategy	Arms Control	USAF Outcomes
1988-2000	<ul style="list-style-type: none"> -Immediate shift from Soviet Union/Russia focus to regional conflicts and issues -“Engagement” as foundation for activist non-strategic presence -Clear shift away from strategic preeminence in policy and strategy 	<ul style="list-style-type: none"> -Post-Cold War Transition: Drawdown in numbers, consolidation in basing, and de-alerting in posture -Stockpile stewardship to preserve capability across unknowns of transition -Widening strategic/deterrent focus to numerous actors and strategic weapons types 	<ul style="list-style-type: none"> -Fruition of Reagan-era bilateral negotiations in START I and II -Heightened focus on multilateral track and products (CTBT, CWC) -European regional spillover from bilateral efforts (CFE, Open Skies) -Unilateral, reciprocal initiatives and cooperative measures in bilateral track (PNI I/II, CTR) 	<ul style="list-style-type: none"> -Gulf War/Bosnia/Kosovo showcase strategic effects from conventional platforms and operational effects from strategic platforms—all from post-Vietnam push advances -Arms control agreements pull toward limits on both total systems and system capabilities (MIRV)

OVERVIEW

Within that broad context of security and nuclear strategy, arms control and USAF development, this book provides the details of the development of strategic arms control and of the USAF roles in and implications from that arms control. The central body of the book examines, in turn, four chronological periods of United States nuclear strategy and strategic arms control practice, each with specific emphasis on the USAF roles, positions, outcomes, and implications from arms control across that period. The authors were selected to combine academic inquiry and experience-based reflection on each period. For each period, one author is an active-duty USAF officer assigned (at writing) to the faculty of the United States Air Force Academy. Their approach is one of academic analysis of the record, with that analysis tailored to operationalization of arms control and toward interagency and Pentagon bureaucratic processes and positions within the process. Their pair authors are four retired USAF officers each of whom was a participant in arms control while on active duty—often central players in the periods they are discussing—each of whom continues to advise USAF arms control efforts as a civilian contractor.

The 1945-1968 foundation period is addressed in chronological form, with Michael Wheeler discussing the cooperation oriented, containment by integration period of the 1940s and Edward Kaplan addressing the more confrontational period of containment by isolation and military implementation of the 1950s and 60s. Together they chronicle the earliest foundations of strategic arms control as represented by the Baruch Plan and the bilateral Limited Test Ban Treaty. They also highlight early USAF support to the president followed by a growing distrust of the USSR, all revolving around the centrality of SAC and support of the SIOP in even this early USAF experience.

The remaining periods involve more active arms control efforts built on the early foundation and involving more direct USAF implications and, eventually, involvement. Each is addressed in tandem by an active-retired officer team. In each case, the active-duty officer provides a detailed context of the period's strategic arms control efforts, with emphasis on the United States and Soviet objectives and positions, and providing an overview of the internal bureaucratic process and positions within the United States approach to the negotiations. The retired arms control insider then presents an essay detailing USAF roles, structures, involvement, and outcomes for the period.

For 1969-1980, the period of detente and SALT, the emphasis is on the confluence of events that enabled such an active era of arms control, on the details of the SALT I, ABM, and Salt II Treaty processes and provisions, and

on the USAF recognition that as an organization they must become an active player within this arms control process. Initial USAF organizational efforts and the first generation of lessons learned are emphasized. The USAF started late on arms control, but they worked to catch up.

For the Reagan years 1981-1988, the focus is first on administration efforts to reestablish the bilateral basis for arms control from a new position of American strength. Eventually, after a series of successions in Soviet leadership, after the US strategic modernization and defense build-up had created the firm impression in the Soviets that nuclear war could not be won, and after a whole series of complementary confidence- and security-building measures enabled the acceptance of on-site inspections for verification, the foundation for a second generation of arms controls was established. Those events plus the story of the now-matured and influential USAF arms control structure and its role are the focus here.

The coverage of the transitional years at the end of and immediately following the Cold War, 1989-2000, highlights the fruition of the protracted negotiations process begun under Reagan. This decade saw the START process reach the agreements stage, and the entire Cold War arms control process reach many of its ultimate objectives. The period also saw the post-Cold War reductions in total United States military forces, well beyond the reduced strategic systems mandated by START, and with those reductions came a drawdown in the manning and capability of the USAF structure built to influence arms controls.

What does this history tell us? The final chapter traces threads of continuity and draws conclusions from the historical record, summarizing and highlighting the implications from arms control on contemporary and continuing USAF posture and operations. Its three threads and eight lessons learned capture the enduring legacy of this effort to the USAF. Finally, the book concludes with a bibliographic essay designed to provide additional references to guide further inquiry by the reader.

This book, then, chronicles a journey—a progression of strategic arms development, strategy refinement, and arms control progression across the truly unique and critical period of the Cold War—that parallels and reflects the development of the USAF. This was an important journey, one that has a story to tell for both the past and the future. Arms control has changed in focus and priority, but significant efforts—with significant potential implications for the USAF—continue in the more cooperative areas of national security. Strategic offense and defense controls are considered, accepted or rejected, even agreed to and announced with little or no negotiation. Issues such as military space and military informational operations and defenses are raised as possible new arenas for international

control. And tangential agreements such as those on anti-personnel land mines (to which the United States is not a party) seek to include certain USAF conventional munitions. "Arms control" in its broad sense is far from dead; its lessons and legacy from Cold War practice continue to inform the USAF today.

NOTES

¹ Thomas C. Schelling and Morton H. Halperin, *Strategy and Arms Control* (New York: The Twentieth Century Fund, 1961), 1.

² See the Bibliographic Essay included at the conclusion of this book for an excellent listing and discussion of the relevant literature.

