Lt. Col. Paul K. White

CRISES after the STORM

An Appraisal of U.S. Air Operations in Iraq since the Persian Gulf War

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1998–1999 National Defense Fellow
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On the cover: View from the cockpit of an F-16 Fighting Falcon. U.S. Air Force photo by Master Sgt. Fernando Serna; cover design by Monica Neal Hertzman.

About the Author

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A career fighter pilot, Lt. Colonel White has flown more than 3,300 hours, including seventy-one combat missions flown during Operations Provide Comfort and Southern Watch. He was the commander of the Thirteenth Fighter Squadron, an F-16CJ "Wild Weasel" unit based out of Misawa Air Base, Japan, that deployed to Dhahran Air Base, Saudi Arabia, and Sheikh Isa Air Base, Bahrain, for 171 days between June 27 and December 14, 1996. He also was the F-16CJ Wild Weasel mission commander for the first flight into the southern Iraq "no-fly" zone after Operation Desert Strike.

Lt. Colonel White was a 1998–1999 National Defense Fellow at the Washington Institute for Near East Policy.

Table of Contents

Author's Note

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The views expressed herein are the author's and do not necessarily reflect the official policy or position of the Washington Institute for Near East Policy, the United States Air Force, Department of Defense, or the U.S. government.

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Finally, I thank my wife, Wendy, and my son, Walker, for allowing me to pursue a calling I love so deeply. They have faithfully endured the challenges of assignments all over the world, and the extensive time we have spent apart. I dedicate this book, with love, to them.

Editor's Note

The Iraqi president is referred to both by his full name, Saddam Husayn, and as Saddam, in accordance with Arab custom (Husayn is his father's name) and to prevent confusion with the late King Hussein of Jordan.

Executive Summary

America's post-Desert Storm experience in Iraq and the changes it has wrought on the U.S. Air Force remain central issues in U.S. military policy. *Crises after the Storm* examines the following three questions: (1) How successfully has coalition air power contained the regime of Iraqi president Saddam Husayn and how effectively has enforcement of the no-fly zones supported United Nations (UN) Security Council resolutions? (2) Has the coalition responded to the four major post-Desert Storm crises effectively and learned from these encounters? (3) How has U.S. participation in Operations Southern Watch and Provide Comfort (Northern Watch) affected the U.S. Air Force?

Containing Iraq and Supporting the UN

Subsequent to the U.S.-led coalition's victory in Operation Desert Storm and Iraq's expulsion from Kuwait, the United States and the UN instituted a policy of "broad containment." The objectives of this policy were to keep Saddam weak politically and limit his military freedom of action in the region by supporting opposing elements inside Iraq and neighboring Gulf states; to constrain Iraq's attempts to rebuild its conventional military forces; to prevent any Iraqi efforts to reconstitute or acquire weapons of mass destruction (WMD); and to monitor carefully and, if necessary, to control Iraq's economy to accomplish the first three goals. Accordingly, the UN Security Council passed Resolution 687 establishing measures to ensure the attainment of these objectives. Resolution 688 then

created no-fly zones to prevent Saddam from attacking his own people and to contain his military.

The U.S. armed services, particularly the air force, took on the job of containing Iraq both to enforce the UN resolutions and also to live up to the U.S. Central Command's mission statement: to promote and protect U.S. interests, to ensure uninterrupted access to regional resources and markets, and to assist regional friends in providing for their own security and regional stability. The continued air strikes in the no-fly zones, increasing U.S. support for Iraqi opposition groups, and Saddam's increasing isolation from other Arab nations have kept the pressure on the Iraqi regime despite Saddam's overt military challenges to the U.S.-led coalition and its containment policy.

Crises in Iraq

Saddam's forces have tested U.S. and UN resolve four times since the end of Operation Desert Storm.

January 1993: In the first crisis, Saddam learned that coalition forces were willing to use deadly force to compel him to comply with UN resolutions; they could and would use air power as an instrument of national policy. At the same time, however, the strikes were limited and the targets had little real value to Saddam. As a result, he also learned how little the United States was willing to risk the lives of its service members and how constrained Washington was concerning how many Iraqi civilian lives it was willing to sacrifice to achieve its political and military goals.

Iraq's reaction to the January 1993 air strikes initiated a pattern of response that would be repeated time and again. Specifically, the Iraqi military would brace itself during the actual attacks, absorbing the blows with little attempt

to strike back. After the attacks were over, Saddam would then announce that any allied planes in the no-fly zone would be shot down, at which time the skirmishes with coalition aircraft would ensue and Saddam would attempt to claim an Iraqi victory.

October 1994: The October 1994 crisis, known as Operation Vigilant Warrior, resulted from a direct challenge by Iraq toward Kuwait, and hence the U.S. response was swift and forceful. By deploying thousands of ground troops, heavy armor, and hundreds more fighter aircraft within a week, the United States demonstrated the seriousness of its intention to defend Kuwait. Iraq undoubtedly expected a slow, gradual build-up of forces similar to that prior to Desert Storm, and the speed and efficiency of the U.S. deployment surprised and intimidated Saddam and may have in fact deterred him from an incursion into Kuwait. And yet, Saddam did achieve some gains in this confrontation: He forced the United States to spend billions of dollars responding to a threat he generated, while he risked little and spent less. Moreover, the massive deployment of coalition forces created the impression throughout much of the Arab world that Iraq was equal to the United States in power and in the ability to shape and influence international affairs.

September 1996: The third crisis, Operation Desert Strike, was a response to Saddam's skillfully carried out attack on Irbil.

In retrospect, the September 1996 crisis was a victory for Saddam. Although economic and political turmoil had weakened Iraq, Saddam was able to perform some internal house cleaning—he settled a grievance with one of the Kurdish factions, and annihilated U.S. intelligence-gathering efforts in northern Iraq. He was also able to

drive another wedge or two in the coalition; for instance, Turkey and Saudi Arabia decided not to allow air strikes to be launched from their territory. Saddam's attack on Irbil also highlighted a limitation of containment in northern Iraq. Because of the area's distance from land-based and carrier-based assets in the Gulf and the inability to employ forces from Turkey, the coalition had few options—other than an all-out aerial attack on Baghdad—to stop the attack on Irbil.

December 1998: The fourth crisis, which culminated in Operation Desert Fox, was the result of a series of inspection-based crises that began in October 1997.

The weeks following Desert Fox proved that the operation had a significant impact on Saddam. Washington broadened the rules of engagement, which resulted in almost daily air strikes and eroded Iraq's combat capabilities. Saddam began to show the strain of the attacks by lashing out at perceived enemies both within and outside Iraq, including calling for the overthrow of several of his Arab neighbors. As a result of all this, Saddam found himself more isolated from the rest of the world than he had at perhaps any time since the Gulf War.

Lessons Learned: The four confrontations between Iraq and the United States share several features, including their instigation at a time when Saddam apparently thought the United States was preoccupied with other matters, and Iraq's reaction to the air strikes. At the same time, the United States also learned several lessons between crises and changed some of its operating procedures accordingly. Two of these changes occurred with respect to the composition of Operation Southern Watch (OSW) patrols and the rules of engagement in the no-fly zones.

In December 1992, the "standard profile" for OSW

missions consisted of four fighter aircraft that would take off from and return to Dhahran, Saudi Arabia, after patrolling the area for approximately thirty to forty-five minutes. At times, a flight would be ordered to overfly a specific area and observe any unusual ground activity. Its main purpose, however, revolved around its presence on Iraqi radar displays—to let Saddam know that coalition air power, which had punished the Iraqi military so spectacularly during Desert Storm, remained on guard.

By the summer of 1996, OSW flying operations had evolved from the "presence" provided by these four-aircraft formations to complete composite-force strike packages. A typical package involved F-15s for defensive counter-air support, F-16CJ "Wild Weasel" fighters for suppression of enemy air defenses support, F-16CG strike aircraft armed with laser-guided bombs, and EF-111 electronic combat jamming aircraft. British Tornado and French Mirage fighter and reconnaissance aircraft were often integrated into the package. This approach provided a more robust air presence that allowed a response to any immediate contingency, and it also added a more realistic training element should circumstances require true strikes: Actual combat strike package composition would be similar to the OSW package.

The rules of engagement in the no-fly zones also changed following Desert Fox. Saddam had marked the end of Desert Fox by announcing that Iraq would fire on any aircraft that entered its airspace—including the no-fly zones—and banned all UN flights into the country. Indeed, two days later, allied aircraft responded to an Iraqi SAM launch near Mosul. This heralded the start of a continuous series of cat-and-mouse confrontations between coalition aircrews and Iraqi SAM operators. Overt Iraqi

challenges to the no-fly zones—in the form of fighter penetrations, SAM fires, anti-aircraft artillery (AAA) fire, and radar illumination—quickly became an almost daily occurrence. Coalition aircraft had previously only responded to such challenges when directly threatened by SAM or AAA launches or by radar illumination, and then only toward the site making the threat. By mid-January 1999, though, coalition aircraft were prepared to respond to any challenges or threats in the no-fly zones with predetermined targets. A perceived threat could be an Iraqi fighter penetrating the no-fly zone, or merely an Iraqi acquisition radar observed in operation, regardless of whether it had illuminated a coalition jet. The United States had broadened the rules of engagement, shifting from an essentially reactive approach to a preemptive one.

Effects of the Operations on the U.S. Air Force

Since Desert Storm, the U.S. Air Force itself has experienced a significant change in tactics and combat employment, with stealth technologies, precision-guided munitions, and stand-off weaponry coming to the forefront. Iraq has been the proving ground for these new weapons, advanced technologies, and attack strategies for real-world combat situations. One such change since Desert Storm has been the air force's improvement in combat capability for night operations. Other improvements in tactical intelligence and communications continue to contribute to timeliness, accuracy, and survivability.

The effect of near-instantaneous news reports and the live coverage of events, coupled with the need to maintain regional or international coalitions, has led the U.S. Air Force to focus increasingly on preventing collateral

damage and civilian casualties. Precision has become a necessity rather than a desire, which in turn influences the choice of units deploying for combat operations, what targets are designated for attack, and how aircrews react to split-second, life-and-death situations in the air.

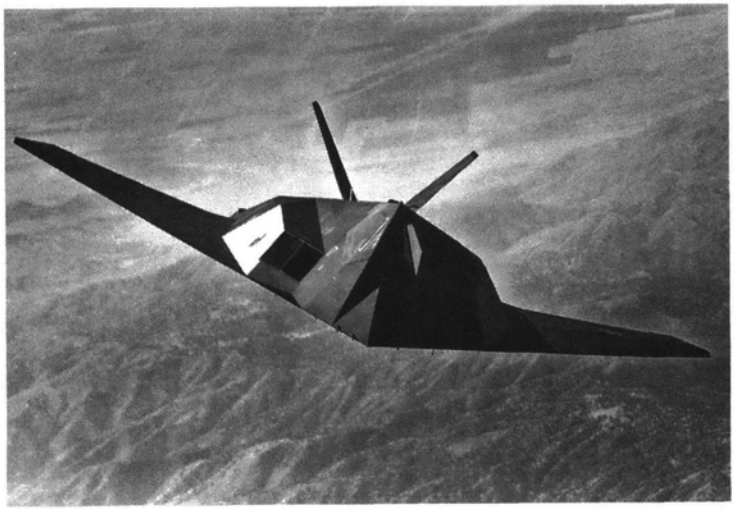
Another new dimension in the use of air power as a foreign policy tool is the concept of no-fly zones. These no-fly zones have allowed the United States to exert a constant and credible military threat against Saddam, and the threat of immediate and precise retaliation by allied air strikes has been a key tool in keeping Saddam "in his box." In addition, the coalition air presence provides important intelligence, reconnaissance, and early warning information.

At the same time, however, enforcing the no-fly zones is costly, in terms of dollars as well as decreasing morale, readiness, and retention of U.S. armed forces. In an era of reduced budgets and manpower, the drastically increased operations tempo and strain on personnel caused by the no-fly zone commitments contribute to this problem.

Washington has attempted to deal with these problems by reshaping the deployment of military forces in Southwest Asia, reducing the number of ground and air forces. By November 1998, the United States had nearly halved its military presence in the region while doubling the number of cruise missiles available for launch. The increased reliance on cruise missiles launched from ships in the Gulf and from B-52s based in Diego Garcia in the Indian Ocean allowed a quicker strike capability because the United States could spend less time securing permission and coordinating with Gulf states for yet another exhaustive and costly redeployment of forces.

History has shown, however, that deterrence must be

not only immediate but also direct to be effective. America's aerospace advantage, unmatched by any other nation, is the primary factor in maintaining its status as the world's lone superpower. To use that advantage to contain Saddam, any future air attacks will have to be aimed not necessarily at the values of the country, but on those cherished by the ruling elite—and most likely on the power of the ruling elite itself.



The F-117A Nighthawk is the world's first operational aircraft designed to exploit low-observable stealth technology. It supports worldwide commitments and adds to the deterrent strength of the U.S. military forces. (U.S. Air Force photo)

Chapter 1

INTRODUCTION

The ultimate object of our wars, the political one, is not always quite a simple one.

—Karl von Clausewitz, Vom Krieg[1]

In August 1990, prior to his army's invasion of Kuwait, Iraqi president Saddam Husayn could boast that his country had the largest and most powerful armed forces in the Near East—indeed, the seventh largest army in the world. Possessing approximately 750,000 men under arms, 5,800 tanks, 3,850 artillery pieces, and 650 combat aircraft,[2] the Iraqi military machine was the self-proclaimed "sword of the Arabs." Following its successes in the war with Iran, Iraq wielded considerable influence throughout the Persian Gulf region, both militarily and politically.

The U.S.-led coalition victory in Operation Desert Storm, achieved largely through a decisive and devastating air campaign, left the Iraqi military in a shambles. During the war, Iraq lost an estimated 2,633 tanks, 2,196 artillery pieces, and 300 aircraft. In addition, approximately 15,000 to 20,000 Iraqi soldiers were killed, between 120,000 and 200,000 deserted, and 86,000 were taken prisoner.[3] In the years following the end of the war, a U.S. policy of containment, supported by a United Nations (UN)–imposed sanctions and inspection regime and backed by a strong military presence, prevented Iraq from significantly rebuild-

ing its military forces and threatening its neighbors. Saddam has effectively been "kept in his cage."[4]

Nevertheless, since the end of Desert Storm, Saddam has continued to challenge the United States and the international community by instigating a series of crises. Whether by massing troops along the Iraq–Kuwait border, taking military action against the Kurds in the north, or creating obstacles to UN inspection teams, the Iraqi dictator has forced the United States to act militarily and diplomatically at a tremendous fiscal and political cost. The use of air power, whether by a show of force, demonstration strategies, or actual air strikes against select targets, has been the primary U.S. response. The resulting high operations tempo maintained by U.S. military personnel has created problems in morale, readiness, and retention. These issues have profound implications for the future of the U.S. Air Force as the twenty-first century approaches.

Simultaneous with the aerial actions, the United States, continuing a historical trend, followed its triumphs in the Cold War with a major disarmament and military force drawdown. Nevertheless, according to former Secretary of the Navy John Lehman:

> While the cataclysmic perils of the Cold War are gone, the world remains a very dangerous place. We now have only one superpower but no accepted order. The world is a virtual petri dish of despots, disturbers of the peace, and fundamentalist ethnic and economic rivalries not possible under the bipolar discipline of the Cold War. This disorder flourishes along with a proliferation of horrendous weapons of mass destruction.[5]

The U.S.-led coalition's confrontations with Iraq following Desert Storm and the end of the Cold War have been

the first real tests for the United States in the "new world order." Because of a perception of limited liability and a high probability of success, air power has become a relatively "cheap" method of armed response. How Washington has responded to these challenges utilizing air military force will be the focus of this book, examining the use of air power as a foreign policy instrument of containment in the post–Cold War era by using four major crises with Iraq since Desert Storm as a model.

America's post–Desert Storm experience in Iraq and the changes it has wrought on the U.S. Air Force remain central issues in U.S. military policy. Therefore, the following questions merit examination: (1) How successfully has coalition air power contained Saddam and how effectively has enforcement of the no-fly zones supported UN resolutions? (2) Has the coalition responded to the four major post–Desert Storm crises effectively and learned from these encounters? (3) How has U.S. participation in Operations Southern Watch and Provide Comfort (Northern Watch) affected the U.S. Air Force?

Accordingly, this book will focus primarily on the role and performance of the U.S. Air Force in Iraq. Although the U.S. containment policy in Iraq has been a joint effort, in-depth examination of the operations of the other military services must take place elsewhere. Similarly, this book is not intended to be an "air power advocacy" forum; the application of air power is just one of many tools available to a nation in compelling, deterring, and containing another nation. The timeframe examined in this book concludes in mid-March 1999. As a result, the impact of the Kosovo crisis and Operation Allied Force on operations in Iraq remain outside this examination's purview. Finally, U.S. relations with host nations—those

countries in the Gulf and elsewhere with U.S. Air Force bases—also will not be examined in detail.

This book will first examine U.S. and UN actions to ensure the containment of Iraq, including UN resolutions and the U.S. military presence. The confrontations in Iraq that have resulted in a U.S. armed response, including the Iraqi actions that provoked these responses, the specific reaction of the U.S. and coalition forces, and the outcome of each of these events, will be examined. Finally, this book will assess the impact of U.S. crisis-response experiences on the air force and propose some conclusions on the uses of air power in the post–Cold War era.

NOTES

1. Lt. Col. Charles M. Westenhoff, comp., *Military Air Power: The Cadre Digest of Airpower Opinions and Thoughts* (Maxwell Air Force Base, Alabama: Air University Press, October 1990), p. 57.
2. Michael Eisenstadt, *Like a Phoenix From the Ashes? The Future of Iraqi Military Power* (Washington: Washington Institute for Near East Policy, 1993), p. 43.
3. Ibid., p. 44.
4. Madeline Albright, "The U.S. Will Stand Firm, No Matter What," *New York Times*, August 17, 1998, p. 17.
5. John Lehman, "Our Military Condition," *American Spectator*, October 1998, pp. 24–27.

A U.S. Air Force F-15C pulls into position beneath a KC-135 Stratotanker to refuel while flying near the Iraqi border during a routine patrol mission of the Southern Watch no-fly and no-drive zone. (U.S. Air Force photo by Sr. Amn. Greg Davis)

Chapter 2

GOALS, OBJECTIVES, AND CONTAINMENT

You can do a lot with diplomacy, but of course you can do a lot more with diplomacy backed up by firmness and force.

—United Nations Secretary General Kofi Annan, February 1998

Establishing a specific framework for a review of U.S. goals and objectives in Iraq and the Persian Gulf area requires a historical perspective, considering different presidential administrations' reactions to ever-changing events in the region. Although U.S. involvement in southwest Asia began at the dawn of this century, one can trace the genesis of current policy to what has become known as the "Carter Doctrine," established by President Jimmy Carter in January 1980 in reaction to the Iranian revolution and the Soviet invasion of Afghanistan. According to the doctrine, "any attempt by an outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States. It will be repelled by any means necessary, including the use of force."[1] This declaration led President Ronald Reagan's administration in 1983 to create the U.S. Central Command (USCENTCOM) to focus on political and military

affairs in the Middle East. The USCENTCOM Posture Statement defines the vital interests of the United States as preservation of peace and stability in the central region through an uninterrupted, secure access to Arabian Gulf oil; protection of U.S. citizens and property abroad; and the security of allies in the context of a comprehensive Middle East peace.[2]

Within the context of these broad statements, then–Secretary of Defense Caspar Weinberger set forth in a November 1984 speech those conditions that should exist prior to commitment of U.S. military forces in support of U.S. national interests, including a clear definition of political and military objectives, commitment of forces capable of achieving success, and support of the U.S. public and Congress.[3] President Reagan supported this policy statement, commonly called the Weinberger Doctrine, in March 1986 when he said the United States would respond to any threats to its national interests by "strik[ing] back with exquisite calibration on a schedule of its own choosing, and in a way that presses its advantages in economic power and military technology, [and] retaining popular support at home by avoiding as much as possible the expenditure of U.S. lives."[4] The Reagan Doctrine, with its emphasis on precision, technology, and limited casualties, quite clearly references a key role for air power as a tool of U.S. security policy.

Subsequent to the U.S.-led coalition victory in Desert Storm and Iraq's expulsion from Kuwait, the United States and United Nations (UN) instituted a policy of "broad containment" with the following objectives: (1) keep Iraqi president Saddam Husayn weak politically and limit his military freedom of action in the region by supporting opposing elements inside Iraq and neighboring Gulf

states; (2) constrain Iraq's attempts to rebuild its conventional military forces; (3) prevent any Iraqi efforts to build or acquire weapons of mass destruction (WMD); and (4) carefully monitor and, if necessary, control the Iraqi economy as a means of accomplishing the first three objectives.[5] Accordingly, the UN Security Council passed Resolution 687 in April 1991 establishing measures to ensure the attainment of these objectives and containing the following terms for the formal cease-fire: (1) establishment of a demilitarized zone between Iraq and Kuwait; (2) Iraq's unconditional acceptance of the "destruction, removal, or rendering harmless, under international supervision . . . [of] all chemical and biological weapons . . . and ballistic missiles with a range greater than 150 km"; (3) creation by the UN Secretary General of the UN Special Commission on Iraq (UNSCOM) as the primary inspection authority to ensure Iraqi compliance with the cease-fire conditions; (4) Iraq's unconditional agreement not to "acquire or develop nuclear weapons," with the International Atomic Energy Agency (IAEA) possessing the responsibility to ensure compliance; and (5) prohibition of the sale to Iraq any type of weapon or item that could relate to arms.[6]

Surprising many Western allies, the Iraqi regime had not self-destructed after the crushing defeat of Desert Storm. Literally within weeks of the formal cease-fire agreement, unfolding events forced the UN to enact additional restrictive measures against Iraq. The defeat of Saddam's forces in Desert Storm prompted immediate uprisings by the Kurds in northern Iraq and the Shi'is in southern Iraq. Saddam responded with armed helicopter attacks to repress these uprisings, resulting in an international demand for the coalition to intervene.[7] The

UN passed Resolution 688, condemning "the repression of the Iraqi population in many parts of Iraq" and insisting that "Iraq allow immediate access by international humanitarian organizations to all those in need of assistance in all parts of Iraq."[8]

The uprisings may in fact have helped Saddam, whose ruling Ba'th Party represents the fierce nationalism present in Iraq. Domestic opinion viewed the uprisings as an attack on the nation rather than an attack on the regime, and the population rallied in support of Saddam.[9] These events, along with the "parking lot incident" in September 1991 when Iraq detained a team of forty-four UN inspectors in a parking lot for several days and released them only after the team surrendered papers revealing Iraqi plans to construct nuclear weapons,[10] served as a stark reality-check for the coalition. Developments required a larger forward military presence in Iraq than post–Desert Storm expectations had indicated. UN Security Council Resolution 688 created the no-fly zones, first in northern Iraq by Operation Provide Comfort in April 1991 and then in southern Iraq by Operation Southern Watch in August 1992, to prevent Saddam from attacking his own population and to contain his military. The no-fly zones established a ban on flights by Iraqi aircraft north of thirty-six degrees north latitude (the thirty-sixth parallel) and south of thirty-two degrees north latitude (the thirty-second parallel). Coalition aircraft, consisting of U.S., British, and French assets based in Incirlik, Turkey, for Provide Comfort and in Dhahran, Saudi Arabia, for Southern Watch, were tasked with patrolling the zones.

Shortly after taking office, President Bill Clinton asked then–Secretary of Defense Les Aspin to devise a new long-

range defense plan encompassing the realities of the "new world order" and declining defense budgets. The "Bottom-Up Review" was produced and submitted to Congress in September 1993. In addition to defining the need for U.S. force planners to provide for the ability to fight two major regional conflicts (MRCs) simultaneously, the Bottom-Up Review specifically addressed force requirements and the desired military presence in the Gulf region. These requirements were heavily dependent on cooperation from Gulf coalition partners, particularly Kuwait, Saudi Arabia, and Bahrain. Details included maintaining four to six U.S. Navy combatant ships in the Gulf, a constant air presence in the no-fly zones, pre-positioned equipment and personnel for one heavy armor brigade in Kuwait, and a U.S. capability to deploy at least three heavy divisions to the region within twenty-one to thirty days. The strategy's success hinged on the capability to respond immediately with a strategic and tactical air and missile offensive, once again bringing air power to the forefront of any potential conflict.[11]

The U.S. containment policy for Iraq therefore depended on a variety of tools: a lethal, forward military presence with the threat to employ force; rapid response capability through pre-positioned equipment; an active sanctions and weapons-inspection regime; enforcement of no-fly and—later—no-drive zones; and a bilateral security relationship with partners in the region to enhance allied defense capabilities.[12] In December 1992, barely twenty-two months after Iraq's total defeat, Saddam initiated the first overt military challenge to the coalition and the containment policy.

NOTES

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6. "Selected UN Security Council Resolutions," in Clawson, *Iraq Strategy Review*, p. 167 (appendix) (reprinted text of UN Security Council Resolution 687).
7. John N. T. Shanahan, "No-Fly Zone Operations: Tactical Success and Strategic Failure," in Mary A. Sommerville, ed., *Essays on Strategy XIV* (Washington: National Defense University, 1997), pp. 6–7.
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9. Al Kamen and Ann Devroy, "Saddam's Power Seen Increasing," *Washington Post*, April 20, 1991, p. A1.
10. Paul Lewis, "Telltale Clues Found by the UN Inspectors in Iraq," *New York Times*, September 29, 1991, p. 18.
11. Anthony H. Cordesman, *U.S. Forces in the Middle East* (Boulder, Colo.: Westview, 1997), pp. 39–48.
12. William Perry, U.S. secretary of defense, remarks at the Washington Institute for Near East Policy, February 6, 1996.

Three F-16C Fighting Falcons fly a training sortie over a Kuwaiti oilfield in preparation for duty on patrol in support of Operation Southern Watch. (U.S. Air Force photo by Sr. Amn. Greg Davis)

Chapter 3

CRISES IN REVIEW

War avoidance and war limitation strategies are particularly problematic because their ultimate center of gravity is the often unknowable mind of the adversary.

—*Basic Aerospace Doctrine of the United States Air Force*[1]

On December 20, 1992, the Thirty-third Tactical Fighter Squadron from Shaw Air Force Base (AFB) in South Carolina, commanded by Lt. Col. Gary North, arrived in Dhahran, Saudi Arabia, with eighteen F-16s outfitted with low altitude navigation and targeting infrared for night (LANTIRN) equipment[2] for a ninety-day tour with Operation Southern Watch (OSW). The mission of the squadron during the deployment was to patrol the skies of southern Iraq in support of the relevant United Nations (UN) resolutions and to display a constant U.S.-led coalition air presence south of the thirty-second parallel. The Thirty-third Squadron, although very experienced in terms of total flying hours, included only three pilots who had participated in combat during Operation Desert Storm. Despite being away from home for Christmas, the unit was motivated and looked forward to fulfilling its time in what many U.S. military personnel referred to as the Saudi "sandbox" during the squadron's first OSW deployment.[3]

During the squadron's initial intelligence briefing, the pilots were informed there had been an unusual amount of Iraqi air activity near the southern no-fly zone border in recent weeks. In fact, E-3 Sentry airborne warning and control system (AWACS) radar had observed Iraqi fighters occasionally flying into the no-fly zone before quickly returning north of the thirty-second parallel. The Iraqis initiated nearly all of the border incursions in the early morning hours or when no U.S. fighters were present. No provocations involving U.S. aircraft had occurred, but the activity was unusual, and pilots were warned to be alert during their sorties.

The squadron flew its first mission into the no-fly zone on December 22. During the days that followed, the squadron became familiar with their OSW taskings. The squadron's instructor pilots who had Desert Storm experience led most of these initial sorties. The missions were relatively simple and were called "standard OSW profiles" by the aircrews: four fighter aircraft would take off from Dhahran, fly north to the Iraq–Saudi Arabia border, refuel in flight from a KC-135R Stratotanker, and subsequently enter the no-fly zone, patrolling the area for approximately thirty to forty-five minutes before returning to Dhahran. Sometimes a flight would be ordered to overfly a specific area and observe any unusual ground activity, but its main purpose revolved around its presence on Iraqi radar displays—to let Iraqi president Saddam Husayn know that coalition air power, which had punished the Iraqi military so spectacularly during Desert Storm, remained on guard.

On the morning of December 27, Lt. Colonel North led a flight of four F-16s on a typical OSW mission. The pilots had just rejoined with the KC-135 tanker for refuel-

ing while monitoring the AWACS control frequency for an update on air activity when they heard urgent transmissions between a formation of four F-15s in the no-fly zone and AWACS controllers. An Iraqi MiG-25 had crossed the border into the no-fly zone, flown within lethal range of the F-15s, and was speeding north to safety with the F-15s in hot pursuit. One F-15 had been close enough to gain visual acquisition on the MiG and confirm it as a "Foxbat," and it had requested clearance to fire in accordance with the standing rules of engagement. By the time the clearance was coordinated, the Foxbat was safely north of the thirty-second parallel, and the F-15s, now low on gas, prepared to leave the area.

Wanting to avoid further delay, North and his wingman refueled with only enough gas to allow them to cover their assigned on-station time in the no-fly zone and crossed the border into southern Iraq while the third and fourth aircraft in their group continued to refuel. They established a rotating orbit in the north-central area of the zone in accordance with their assigned tasking. Within minutes, AWACS radar detected an Iraqi aircraft heading south toward the thirty-second parallel. The Iraqi aircraft approached the border, safely remained several miles north of the line, and flew east before turning back to the north. AWACS controllers ordered the two F-16s toward the aircraft to ensure it did not cross into the no-fly zone. As the F-16s were terminating the intercept and returning to their orbit point, AWACS radar reported another high-speed contact originating in the north and crossing into the no-fly zone, approximately thirty miles west of the F-16 formation. Again, AWACS controllers directed the F-16s to intercept the trespassing aircraft, forcing the Iraqi fighter to turn north to safety before the F-16s, armed

with two AIM-120A advanced medium range air-to-air missiles (AMRAAMs) and two AIM-9M Sidewinder missiles,[4] could engage it. As the F-16s returned yet again to the orbit point, AWACS radar monitored another aircraft, northeast of the F-16s, flying south toward the no-fly zone, following almost the exact same ground track and flight profile as the first MiG. As the F-16s again flew to intercept the aircraft, an Iraqi surface-to-air missile (SAM) radar site began tracking the aircraft. Although the Iraqi jet never crossed the line and the SAM radar indications disappeared, this mission had very rapidly turned into "not your normal day in the sandbox."

As North was returning to the orbit point for a fourth time, he ordered the third and fourth aircraft in his group, now with a full load of gas and approximately sixty miles to the south, to fly north at their best speed. At this time, AWACS radar again reported a radar contact entering the no-fly zone to the west of North's formation at high speed at 30,000 feet. The aircraft was flying directly toward them on an easterly heading. Calling for a tactical offset to the north to "bracket" the F-16s between the MiG and the thirty-second parallel, North created a blocking maneuver, trapping the Iraqi intruder in forbidden airspace. It was quickly apparent that the MiG could not escape back into Iraqi territory without a fight. North knew at that point that "someone was going to die within the next two minutes, and it wasn't going to be me or my wingman."[5]

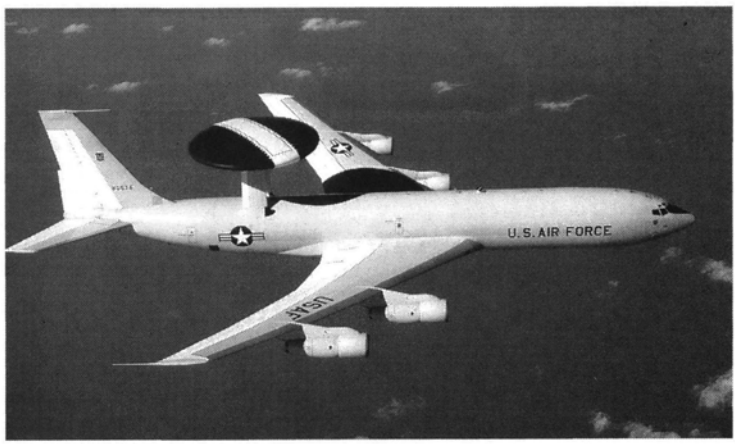
Requesting clearance to fire, the two F-16s continued to close on the trespassing aircraft, lighting their afterburners and climbing toward the Iraqi jet. North visually identified the aircraft—a MiG-25 Foxbat, typically armed with AA-6 "Acrid" radar-guided missiles—and directed his wingman to employ his electronic jamming pod. Again,

he requested clearance to fire. The MiG began turning to the north directly in front of North's jet when finally he heard, "BANDIT-BANDIT-BANDIT, CLEARED TO KILL" over his head set. At fifteen degrees nose high and fifteen degrees right bank, he fired an AMRAAM. Impact with the Iraqi aircraft occurred twenty miles inside the no-fly zone and was easily seen by the F-16s. North later commented, "I saw three separate detonations. The nose and the left wing broke apart instantly, and the tail section continued in to the main body of the jet for one final, huge fireball." The entire episode, from the time North left the tanker until he shot down the Foxbat, transpired in less than fifteen minutes.

This MiG kill was the first active combat engagement between Iraq and U.S.-led coalition forces since the end of Desert Storm and was the first air-to-air kill credited to a U.S. F-16. It also marked the beginning of a series of events that led to the first of four major crises in Iraq that this chapter will examine.

January 1993

The months prior to the January 1993 crisis were relatively quiet ones in Iraq. In August 1992, coalition forces began Operation Southern Watch and created a southern no-fly zone to protect Iraqi Shi'i dissidents from armed helicopter attacks. News reports subsequent to this period, however, focused primarily on the impending inauguration of President Bill Clinton and on reports of atrocities in the former Yugoslavia, with the media calling for U.S. intervention and suggesting that the United States create a no-fly zone over Bosnia. Perhaps the biggest issue of concern for U.S. political and military planners on December 10 was the



The E-3 Sentry is an airborne warning and control system (AWACS) aircraft that provides all-weather surveillance, command, control, and communications. Its rotating radar dome is thirty feet in diameter, six feet thick, and contains a radar subsystem that can detect, identify, and track enemy and friendly low-flying aircraft. (Photo courtesy U.S. Air Force)

situation in Somalia, where Washington had sent a carrier battle group and a military force anticipated to grow to 30,000 personnel under the same command (USCENTCOM) supervising U.S. forces facing Iraq.[6] Although there had been reports of Iraqi military forces impeding relief convoys to the Kurds in northern Iraq in recent weeks,[7] the political situation appeared to be stable until North's aerial engagement on December 27.

That confrontation immediately assumed a personal tone. In a Baghdad radio broadcast the next day, Iraq claimed it reserved the right to respond to the downing of the Foxbat "in the appropriate manner and at the appropriate time." The *al-Iraq Daily* declared, "If the criminal [President George] Bush imagines that this crime will go

unpunished, then he is deluding himself."[8] On December 30, Iraqi warplanes made additional incursions into the southern no-fly zone. Although there were no more incidents, the U.S.S. *Kitty Hawk* sailed to the Persian Gulf from Somalia with eighty-five aircraft and a crew of 6,500.[9] President Bush remarked, "Saddam Hussein is testing something. I don't know whether he's testing me or President[-elect] Clinton. It makes me think he doesn't get it yet. He's a madman."[10]

The situation became more urgent on January 4 and 5, 1993, when Iraq began to move SA-2 and SA-3 SAMs into the southern no-fly zone. The movement of the missiles was not a violation of post–Desert Storm UN resolutions. After the no-fly zone was established, Iraq maintained some missiles in the South and received warnings from the United States not to activate the radar guiding the missiles. The Iraqis shifted these existing missile sites to other locations, however, and added more missiles near the thirty-second parallel. Monitors reported three Iraqi aircraft incursions into the no-fly zone on January 4, and U.S. officials speculated that Iraq was trying to shoot down a U.S. jet in retaliation for its loss on December 27.[11]

Meanwhile, U.S./allied military planners in Riyadh and Dhahran began to consider possible attacks on Iraqi air defense sites and command-and-control facilities. U.S./allied military leaders placed aircraft in Dhahran on alert and extended air patrol coverage in the southern no-fly zone to twenty-four hours a day.[12] This activity allowed the coalition to have several updated and current attack plans "in the bag" if the forces were needed to execute combat air strikes against Iraq. With the exception of the *Kitty Hawk*'s arrival, no additional aircraft were deployed in the Iraqi theater of operations.

On the evening of January 6, after receiving reports from U.S. pilots that Iraqi SAM radars had targeted some of their fighters, the Bush administration issued an ultimatum to Saddam that Iraq remove the newly-deployed SAMs from the southern no-fly zone or risk allied military retaliation. Iraq was given forty-eight hours to comply, after which no further warnings would be given.[13] Iraq rejected the ultimatum and declared that any allied attack would provoke a commensurate response. Further, Iraq banned all flights by UN weapons inspectors on UN aircraft within the country, a clear breach of Desert Storm cease-fire agreements. Baghdad's leadership told the Iraqi population to prepare for an "honorable, holy war" against the allied coalition. [14]

With surprisingly little diplomatic effort behind the scenes, the combative situation continued to escalate. On January 10, a group of 200 Iraqis crossed the border and traveled approximately 400 yards into Kuwait to Umm Qasr, a former Iraqi naval base given to Kuwait by the UN after Desert Storm. The group entered warehouses and seized water tanks, electrical wires, and weapons, including explosives and four Chinese-built, Silkworm anti-ship missiles that Iraq abandoned during the Persian Gulf War. The Iraqis made similar excursions on January 11 and 12 in the same area. U.S. officials also claimed that Iraq had upgraded SAMs in the northern no-fly zone to operational status.[15] During this time, allied aircraft in the southern no-fly zone continued their round-the-clock presence, particularly in areas that could be potential targets.

Actually, the order to strike had already been given, but officials canceled at the last minute a night attack scheduled for January 12 because of poor weather conditions—cloud cover would have severely limited coalition

aircrews' target acquisition. Airborne strike aircraft returned to their base for twenty-four hours after performing a weather check in the target areas.[16] On the night of January 13, with the weather only marginally improved, coalition aircraft attacked six target areas in the southern no-fly zone. The targets included command-and-control facilities, sector operations centers, early-warning radar sites, and mobile SAM batteries at Basrah, Tallil, Ashshuaybah, Nasiriyah, Amarah, and Najaf. The strike force included U.S. air force and naval, as well as British and French, aircraft. The strike achieved mixed success. According to Pentagon officials, the aircraft struck only sixteen of the thirty-two specific target points because cloud cover in the area limited target acquisition and employment of laser-guided munitions by F-117s and F-15Es; F-16s and F-18s dropped free-fall bombs from above the clouds in some instances. All aircraft remained above 10,000 feet to limit the effectiveness of Iraqi anti-aircraft fire.[17] According to allied pilots, Iraqi fighter aircraft and SAMs offered no opposition. Iraq claimed only nineteen casualties, and Saddam threatened to "turn the skies of Iraq into a lava against the oppressors."[18]

Two days later, Iraq announced on January 15 that it would allow UN inspection flights to Baghdad if they flew directly from Amman, Jordan, avoiding the southern and northern no-fly zones. On January 16, Saddam publicly vowed to shoot down any allied aircraft flying in either no-fly zone.[19] On January 17, however, a U.S. Air Force lieutenant shot down an Iraqi MiG-29 "Fulcrum" that had strayed across the northern no-fly zone border. Like North, the U.S. pilot was flying an F-16 and used an AIM-120 AMRAAM to make the kill. Additional incidents would follow.

That evening, the U.S.-led coalition launched forty-five Tomahawk cruise missiles against a nuclear fabrications plant in Zaafaraniyah, seventeen miles south of Baghdad. The attack resulted from Iraq's earlier refusal to grant access to UN weapons inspectors. Although the site was reportedly producing industrial spare parts only, its near total destruction was also symbolic because January 17 marked the two-year anniversary of the beginning of Desert Storm.[20] The attack did not directly involve allied warplanes, but Iraqi anti-aircraft batteries reportedly fired on a U.S. F-4G "Wild Weasel" patrolling in the northern no-fly zone, which responded with an AGM-88 high-speed anti-radiation missile (HARM).[21]

The next day, January 18, U.S., British, and French aircraft returned to some of the targets attacked on the night of January 13 with a daylight raid on the Tallil Sector Operations Center—reportedly killing an Iraqi Air Force general and as many as thirty officers—as well as on the Naja Integrated Operations Center and the early warning radar at Samawah.[22] The attack, comprising seventy-five coalition aircraft hitting their targets almost simultaneously with a combination of AGM-88 HARM and laser-guided and free-fall munitions, was again confined to areas in the southern no-fly zone and was highly successful, rendering Iraq's air defense system in the South virtually inoperable. In addition, the United States had bolstered its troop strength in Kuwait with approximately 1,100 troops,[23] and the UN asked the Security Council to commit an additional 3,650 armed peacekeepers to the Kuwait–Iraq border. On January 19, the day before President Clinton's inauguration, Iraq announced a unilateral cease-fire.

Saddam appealed directly to the new U.S. president to halt the bombing raids and begin peace negotiations

as soon as possible.[24] In a moderate gesture, Iraq allowed UN weapons inspectors to enter Iraq without restrictions. These efforts did not produce the expected results. Aircraft clashed in the northern no-fly zone on January 19, 21, and 22, when U.S. fighters on patrol responded to Iraqi SAM battery radar locks with air-to-surface munitions. Iraq denied it had initiated any action, claiming that the incidents were merely "remnants of the criminal Bush administration."[25] On January 28, dispersed Iraqi troops in southern Iraq returned to their barracks, and on January 30, the chief of the UN weapons inspection team, Maurizio Zifferero, said current inspections were completely satisfactory and that Iraqi officials had been cooperative.[26] Further air patrol activity by coalition aircraft in the no-fly zones continued without incident. The crisis was evidently over.

The January 1993 crisis merits close scrutiny for several reasons. First, it established the tone for future crises in its very personal nature. Examining the Iraqi fighter aircraft tactics in North's MiG engagement on December 27, the Iraqis were clearly playing a cat-and-mouse game (flying in from the east, flying in from the west, retreating to safety, and then repeating) in an effort to lure and shoot down a U.S. jet, something no Iraqi pilot had accomplished during Desert Storm. The tactics displayed by the Iraqis in that engagement were surprisingly sophisticated, especially considering the apparent coordination between four independent aircraft and SAM missile battery operators, assuming the coordination was not merely a coincidence. Saddam undoubtedly wanted to shoot down a U.S. aircraft merely to humiliate outgoing President Bush in his last days, highlighting Iraqi decision making as being driven largely by Saddam's personal motives. The rhetoric that

followed between Saddam and President Bush during this period supports this conclusion. Indeed, as a postscript to this particular crisis, on June 27, 1993, U.S. Navy ships fired twenty-three Tomahawk cruise missiles at an intelligence compound in Baghdad after U.S. intelligence learned that Iraq masterminded a foiled plot to assassinate former President Bush during a visit to Kuwait in April.[27]

It is difficult to determine if Saddam had planned to escalate the confrontation to the degree that he did prior to North's MiG encounter, or if it was a reaction to Iraq's embarrassment at seeing a plan fail so completely. Certainly, the timing of this crisis was quite clearly tied to the transition from the Bush to the Clinton administration. Iraq's declaration of a unilateral cease-fire the day before the inauguration was not a coincidence. It is also possible that Saddam thought he could subtly attempt to change the status quo in southern Iraq by moving SAMs into the no-fly zone while the crisis in Somalia captured U.S. attention. It was neither the first nor the last miscalculation Saddam made regarding the will of the coalition to keep him contained.

The second reason this crisis merits attention is that it was only the first of several occasions in the post–Desert Storm period when the coalition employed combat aircraft to attack Iraq, but it is the only time Saudi Arabia permitted aircraft to launch from its territory to punish Saddam. Interestingly, during this crisis, while enforcement of the northern no-fly zone continued unabated, Turkey would not allow strike missions to be flown from its territory, despite a request from President Bush. The Turkish government claimed that the recent slaughter of Muslims in Bosnia made it politically difficult to support attacks on Iraqis launched from Incirlik.[28] In

addition, the only aircraft participating in the strikes were U.S., French, and British; no other coalition partners participated.

Third, Iraq's reaction to the air strikes initiated a pattern that would be repeated time and again. During the period of actual hostilities, the Iraqi military braced itself, accepted the blows with little serious attempt to strike back, and simply waited until the attacks were over. Then, Saddam announced publicly that any aircraft entering the no-fly zones would be shot down—a decree followed by skirmishes between Iraqi SAM systems and coalition aircraft or actual anti-aircraft artillery (AAA) or SAM launches against U.S. aircraft on patrol. Some analysts and scholars have speculated that this reaction is Saddam's attempt to remain defiant, proving to his country, his army, and the "Arab in the street" throughout the Middle East that he is still a warrior and a fighter, willing and able to confront the great Western powers without being cowed or intimidated by their military prowess and technology. (Later crises would demonstrate that the real threat to coalition pilots occurs in the weeks after air strikes have occurred, rather than during the attacks themselves.)

Finally, in this first test by Iraq of allied resolve, Saddam learned that coalition forces were quite willing to use deadly force to compel him to comply with UN resolutions. The forces could and would use air power, virtually unopposed by an Iraqi military severely crippled by the sanctions regime and its losses during the Gulf War, as an instrument of national policy. The strikes were limited, however, and the targets had little real value to Saddam. He learned from this first confrontation how little the United States was willing to risk its service members and how constrained Washington was concerning how many civilian lives it was

willing to sacrifice to achieve its political and military goals. Peter Rodman, a former National Security Council staff member, said, "This retaliation was a chance to inflict real pain, more than Saddam Hussein expected. I'm afraid we did less than he expected, and it's not likely to discourage him from doing something again."[29]

October 1994: Operation Vigilant Warrior

The October 1994 crisis was similar to the January 1993 crisis in that Iraq acted unexpectedly while the United States was heavily involved in another military operation. Throughout September 1994, the United States was focused on Haiti in discussions oriented toward expelling the military leadership from power by a U.S.-led invasion. Haitian Lt. Gen. Raoul Cedras controlled the country, but the objective of the United States and the UN was restoring President Jean-Bertrand Aristide to his rightful position.[30] Elsewhere, North Atlantic Treaty Organization (NATO) warplanes struck Serbian positions near Sarajevo on September 22 in retaliation for a rocket attack on UN peacekeepers.[31] During the spring and summer of 1994, tensions between the United States and North Korea increased over North Korea's nuclear weapons capability and the death of North Korean leader Kim Il-Sung in July, which had raised North Korea's paranoia to an alarming level and resulted in a threat to turn Seoul into a "sea of fire." These events forced U.S. planners to seriously consider the implications of the two major regional conflicts (MRC) policy developed in the Bottom-Up Review, with a grim possibility of armed conflict in Korea and the Persian Gulf.

In the Near East, the United States expressed con-

Two U.S. Air Force A-10 Thunderbolt IIs fly in formation moments before dropping away from a refueling tanker. (U.S. Air Force photo by Sr. Amn. Greg L. Davis)

cern over Iran's receipt of Chinese Houdong missile boats, capable of carrying anti-ship missiles. In addition, the United States was still recovering from the accidental downing by two U.S. Air Force F-15s of two U.S. Army Blackhawk helicopters flying in the Iraqi northern no-fly zone on April 14.[32] The tragedy resulted in twenty-six deaths, including high-ranking U.S., Turkish, British, French, and Kurdish military officers. Several U.S. officers were afterwards relieved of command, and U.S.–Turkish relations were temporarily strained. The incident did not significantly alter the standard rules of engagement in the no-fly zones, although it did result in several changes in the U.S. Air Force, including a new

mandatory visual identification training program for all U.S. Air Force pilots.

At the same time, Iraqi defectors escaping to Kuwait reported that Saddam had ordered ears cut off and foreheads branded on 2,000 captured deserters, as he attempted to discourage an epidemic of desertions from his armed forces that had escalated to 500 soldiers per month.[33] In early October, indications were that Iraq was moving significant numbers of ground forces toward Kuwait. Saddam's threat toward Kuwait may or may not have been an effort to distract the Iraqi population from its economic woes, but on October 7, U.S. officials reported that 20,000 mechanized soldiers of the Republican Guard had moved within thirty miles of the Kuwait border, where some 40,000 Iraqi troops were already stationed. The move placed Iraqi tanks, heavy armor, and elite troops within one hour of Kuwait.[34]

On October 6, Baghdad had warned the UN it would prevent UN monitoring of its military forces unless the Security Council eased its embargo on Iraqi oil sales. The Iraqi economy was in tatters: Annual inflation was at more than 1,000 percent; the currency value was free-falling; and government-imposed monthly rations for rice, sugar, cooking oil, and flour had been cut by between 33 percent and 50 percent since September 25.[35] The UN Security Council was scheduled to meet the week of October 10 to discuss whether Iraq had complied with the conditions for lifting the embargo.[36]

At that time, U.S. forces available in the Persian Gulf included 1,224 army; 6,657 navy and marines; 3,941 air force; and 173 special operations personnel and 130 other personnel assigned to Joint Task Force headquarters in Riyadh. Washington responded to the Iraqi troop move-

ments by dispatching the aircraft carrier U.S.S. *George Washington* from the Adriatic Sea to the Red Sea and shifting 2,000 U.S. Marines on duty in the southern Gulf region into Kuwait. Heavy weaponry on army ships at Diego Garcia in the Indian Ocean began moving toward the Gulf, and 4,000 additional troops from Fort Stewart, Georgia, were deployed to Kuwait. Eighteen thousand more U.S. Marines in the United States were placed on alert. The Kuwaiti military moved most of its 18,000-member force to its northern border with Iraq.[37] By October 12, a total of 36,000 U.S. ground troops were stationed in the Persian Gulf, joining an added force of two Patriot missile batteries and more than three hundred fifty additional aircraft, including F-15s, F-16s, A-10s, F-117s, F-111s, AWACS, E-8 Joint STARS, and fifty-four attack helicopters.[38] The United States demanded that Iraq withdraw its troops from the border, threatening a preemptive strike on Baghdad if it did not comply. U.S. officials claimed that ground, air, and sea forces could grow to 70,000 troops if all those on alert were sent forward.[39] For its part, Iraq claimed that its deployed troops were merely conducting routine exercises. Nevertheless, it began pulling its forces back toward Baghdad on October 11.[40]

On October 12, as Russian diplomats flew into Baghdad hoping to prevent a military confrontation, Saudi Arabia and four other Gulf nations—Bahrain, Oman, the United Arab Emirates, and Qatar—agreed to deploy troops in support of the coalition.[41] Bahrain, the first gulf state to join the allies, sent ships and aircraft to Kuwait. Egypt and Australia agreed to send troops if necessary. Citing evidence that Iraq had indeed begun to withdraw its troops, the Pentagon announced it was slowing further deployment of additional personnel. On October 15, Secretary of Defense

William Perry announced that another war had been successfully averted and declared the crisis over.[42] In the eight-day episode, the United States had deployed 28,000 combat-capable soldiers. The troops remained in Kuwait, conducting exercises now dubbed "Vigilant Warrior," until late November with most of the newly deployed personnel having returned to their normal duty stations by Christmas.

Saddam's provocative actions resulted in the UN Security Council passing Resolution 949 on October 15. The resolution condemned Iraqi aggression, demanded that Iraq withdraw its forces to their original positions held on September 20, and effectively created a "no-drive zone" in southern Iraq, wherein tanks and other heavily armored vehicles, primarily operated by the Republican Guard, were declared off-limits. On October 20, the United States outlined its policy concerning enforcement of the new resolution, including maintaining a permanent presence of A-10s and F-16s at al-Jaber Air Base in Kuwait to join the OSW force already conducting operations out of Dhahran.[43]

In hindsight, it is difficult to assess Saddam's objective in menacing Kuwait in 1994. Similar to the earlier crisis, he may have believed the United States was too preoccupied with other events (Haiti, North Korea, Sarajevo) to react effectively to his latest challenge. He may have been trying to deflect attention away from the dire straits of Iraq's economy by focusing on an external enemy: He was fighting to relieve the suffering of the Iraqi people caused by the sanctions regime imposed on Iraq by the U.S.-led coalition. It may have been a misguided attempt to coerce the UN Security Council into lifting the oil embargo, although with the UN review of the Iraqi embargo

scheduled for the week of the crisis, one has to question his timing. On October 14, Saddam told Russian diplomats in Baghdad that he was prepared to recognize Kuwait as a sovereign state if the oil embargo ended, an offer Washington immediately rejected.[44] Although Saddam's actions in this crisis may have prevented the Iraqi populace from taking to the streets in mass protest over the ration cuts,[45] the country's economic situation remained unchanged, and Saddam now had to endure a no-drive zone and an increased air presence in southern Iraq.

Nevertheless, Saddam did achieve some gains in this confrontation. He forced the United States to spend billions of dollars in responding to a threat he generated, while he risked little and spent less. The massive deployment of coalition forces created the impression throughout much of the Arab world that Iraq was equal to the United States in power and in the ability to shape and influence international affairs.

The October 1994 crisis was the first significant military challenge to the United States and its allies following the Gulf War. The January 1993 crisis had not taken place because Iraq had made an overt military threat; it had resulted instead from subtle attempts by Saddam to alter the political status quo and to embarrass President Bush. Even during the allied attacks, Iraq did not aggressively try to defend itself. The United States did not redeploy huge numbers of troops into the region in the 1993 confrontation, and Saddam was probably surprised that the coalition did not react more forcefully. The October 1994 crisis, on the other hand, resulted from a direct challenge by Iraq toward Kuwait, and hence the U.S. response was swift and forceful. By deploying thousands of ground troops, heavy armor, and hundreds more fighter aircraft within a week,

the United States demonstrated the seriousness of its intention to defend Kuwait. Iraq undoubtedly expected a slow, gradual build-up of forces similar to the five-month reinforcement effort it had seen from the coalition prior to Desert Storm. The speed and efficiency of airlift operations for Operation Vigilant Warrior surprised and intimidated Saddam and may have in fact deterred him from an incursion into Kuwait. The coalition remained essentially intact, and Saddam had, for all intents and purposes, shot himself in the foot. Yet, he was still in power after once again having defied the West. A senior U.S. official remarked, "This is not over. I think Saddam will try to find a way to say to the United States and the international community that neither we nor he can win the game according to its existing rules, so that we must change the rules and give him what he wants."[46]

September 1996: Operation Desert Strike

The period between the autumn of 1994 and the summer of 1996 in Iraq was relatively crisis-free while Saddam attempted to stabilize deteriorating economic conditions in his country. In August 1995, following the defection of two of Saddam's sons-in-law and their families to Jordan, tensions increased briefly. Lt. Gen. Husayn Kamil Hasan Majid and Lt. Col. Saddam Kamil Hasan Majid provided the United States and the UN with vital information on Iraq's nuclear and chemical weapons programs. Fearful that Iraq might attack Jordan in retaliation for harboring the defectors, the Pentagon dispatched the U.S.S. *Theodore Roosevelt* to Israel and 2,000 U.S. Marines to train with Jordanian forces in the Gulf of Aqaba.[47] Although no confrontation occurred, the deployment, designated

Four F-16CJ "Wild Weasels" from the 35th Fighter Wing, Misawa Air Base, Japan, fly in formation. The F-16 Fighting Falcon provides a relatively low-cost, high-performance weapon system for the United States and allied nations. (Photo courtesy Katsuhiko Tokunaga)

Operation Vigilant Sentinel, sent a message of deterrence to the Iraqi president. Subsequently, Saddam delivered his own deterrence message: In February 1996, when the two defectors returned to Iraq, they were murdered.[48]

The very real threat of terrorism, in the United States and the Middle East, preoccupied U.S. political and military thought as events unfolded prior to Operation Desert Strike. At 9:55 p.m. on June 24, 1996, a car bomb exploded just outside the perimeter fence of Khobar Towers in Dhahran, the primary allied air base used for OSW and the temporary home to approximately 2,000 U.S. personnel. The blast left a crater four times as deep and three times as wide as that created by the federal building bomb-

ing in Oklahoma City, and it resulted in 19 U.S. airmen killed and 270 injured, in addition to 147 injured Saudi and foreign nationals.[49] Within the next four weeks, two other events fueled heightened fears of terrorism. First, a TWA jumbo jet exploded shortly after take-off from New York's John F. Kennedy International Airport on July 18, killing all 230 people aboard. Then, a bomb exploded at Centennial Olympic Park on July 27 during the Summer Olympic Games held in Atlanta, Georgia, resulting in one dead and 111 injured.

At Dhahran Air Base, flying operations for OSW resumed within two days of the Khobar Towers incident. Approximately one-half of a mile separated the Khobar Towers housing complex from Dhahran Air Base, so the blast damaged none of the infrastructure that supported the flight operations. Yet, most of the windows were blown out in the housing buildings, requiring major efforts by allied military personnel to clean up broken glass and debris. Troops hastily reconstructed wooden panel-and-plastic sheet doors and windows to allow air conditioning to operate sufficiently well to counter the intense summer heat. Repair crews replaced the windows with new panes covered with a protective Mylar coating to limit the future possibility of flying shards of glass, which had been the primary cause of injury following the explosion. Bomb drills became a daily occurrence, sentries took posts at a single entrance to each building to account for each person entering and leaving, and additional security forces arrived. Defense Secretary Perry created the Downing Commission, led by Gen. Wayne Downing (ret.), to investigate the Khobar Towers bombing. All U.S. military personnel were placed on a high state of alert because of indications that terrorists were planning another attack

in the Gulf region, and on August 3, the United States evacuated approximately 700 military dependents residing in Saudi Arabia.[50]

By that time, the United States had decided to relocate nearly all of the OSW mission from Dhahran Air Base to the less accessible and more sparsely populated Prince Sultan Air Base (PSAB) in al-Kharj. The coalition had used PSAB, a large base south of Riyadh, extensively during Desert Storm. Costing $200 million divided between the United States and Saudi Arabia, the relocation began immediately and ended without interrupting ongoing operations.[51] The British and French also participated in the relocation.

By summer 1996, to counter periodic Iraqi provocation more effectively, OSW flying operations in the southern no-fly zone had evolved from a "presence" provided mostly by four-aircraft formations of allied fighters to one that consisted of complete composite-force strike packages. A typical package involved four F-15s to provide defensive counter-air (DCA) support, four F-16CJ "Wild Weasel" fighters to provide suppression of enemy air defenses (SEAD) support, eight F-16CG strike aircraft armed with laser-guided bombs, and a pair of EF-111 electronic combat jamming aircraft. British Tornado and French Mirage fighter and reconnaissance aircraft were often integrated into the package. In addition, DCA support, usually provided by F-15s, always accompanied U-2 strategic reconnaissance aircraft on their missions. This "package" approach provided a more robust air presence that allowed a response to any immediate contingency, and it also added a more realistic training element should circumstances require true strikes: Actual combat strike package composition would be similar to the OSW pack-

ages. Most missions took place during daylight hours, with night missions typically flown approximately one week of every month. Flying operations occurred seven days a week; a deployed squadron could anticipate no more than two "down days" a month. U.S. Air Force integration with U.S. Navy air missions was rare; an air force package was usually "deconflicted," or kept physically separated by distance and altitude, with a navy package. Limited continuation training was available inside Saudi Arabia to allow units to practice other missions and to fill other training requirements, including downloading live ordnance and flying local training missions, with most units allocating 15 percent to 20 percent of their flying effort to peacetime training.

In Iraq, signs of unrest and opposition to Saddam's regime had appeared. In June, Saddam successfully foiled a coup attempt by disgruntled military officers, arresting at least fifty officers, including two commanders.[52] In July, Saddam narrowly escaped assassination when a bomb exploded outside one of his palaces minutes after he had left the area. Hundreds of officers were reportedly arrested, and dozens executed, including some members of the Republican Guard.[53] The defection of the Iraqi weightlifter who carried the Iraq national flag during the opening ceremonies of the Summer Olympics in Atlanta further highlighted unrest in Iraq.[54] Resentment by the military toward Saddam had been growing since the end of the Gulf War. They understood better than anyone what had happened to them during Desert Storm, despite Saddam's propaganda. In the Iraqi Air Force, recruitment trouble appeared; "matriculation grade minimum" for entry into air cadet school dropped from 80 percent to 60 percent. The Iraqi army had dropped from one million personnel

in 1990 to four hundred thousand in 1996, and from sixty-six to twenty-three divisions. Continued problems with recruiting and desertions resulted in a staffing rate for most units of only 65 percent to 70 percent.[55] Support from his own military forces was dwindling at a dangerous rate, and Saddam needed to do something to stem the tide.

On August 28, U.S. intelligence sources confirmed that Saddam was massing troops and armor near the thirty-sixth parallel. On August 31, Iraqi forces attacked the city of Irbil, located in the southeastern area of the northern no-fly zone, with more than 350 tanks, 300 artillery pieces, and 30,000 to 40,000 troops.[56] The Pentagon alerted U.S. air and naval forces in the United States and abroad to prepare for possible immediate deployment to the Gulf. Carrier-based air patrols over Iraq increased and coordinated with the U.S. Air Force's OSW missions, and mission planners began to develop target lists for potential air strikes. Saddam claimed that Massoud Barzani, head of the Kurdish Democratic Party (KDP), had invited Iraqi troops to assist in the KDP's battle against the Patriotic Union of Kurdistan (PUK), led by Jalal Talabani, over control of Irbil.[57] The two rival factions had clashed for nearly thirty years over control of Iraqi Kurdistan. Immediately after the Gulf War, through U.S.-led efforts highlighted by Operation Provide Comfort, the two sides had maintained a truce until 1994, when hostilities resumed. One of the major sources of tension was control of the city of Irbil, primarily under control of Talabani's PUK. The PUK had achieved notable victories throughout the summer of 1996, reputedly with money, weapons, training, and logistical support from Iran. Fearful of total defeat, Barzani's KDP "made a pact with the devil," and asked for assistance from Saddam against the Iranian-

supported PUK. By September 1, Iraqi troops and their Kurdish allies controlled Irbil.[58]

The Iraqi attack on Irbil was skillfully carried out, at a time when Saddam desperately needed a victory to give his troops. The Iraqis were extremely fearful of a U.S. attempt to defend Irbil by air; therefore, they amassed their forces carefully, attacked at night, smashed the Kurdish forces before daylight, and withdrew the next day, presenting the United States with a *fait accompli.*[59] Senator John Warner asked why the United States had not reacted sooner to intelligence reports of 30,000 Iraqi armored troops massing along the border.[60] The question was moot: Turkey, Jordan, and Saudi Arabia denied the U.S. request for launching coalition air strikes against Iraq from their territory,[61] even though the strikes were already planned and ready for execution. Although Iraqi forces had already begun their withdrawal from Irbil, they still encircled that city and controlled the Kurdish strongholds of Sulaymaniya and Salah ad-Din. Four B-52s were dispatched to Guam, and U.S. officials vowed that Iraq's aggressive actions would not go unpunished.[62]

In the early morning of September 3, the United States launched Operation Desert Strike—twenty-seven cruise missiles against fifteen targets in southern Iraq. The targets, consisting primarily of air defense batteries and command-and-control installations, were located in al-Iskandariyah, Al Kut, Nasiriyah, and Tallil airfield. Two B-52s flying from Guam fired thirteen of the missiles, while the destroyer *Laboon* and the cruiser *Shiloh* together launched fourteen.[63] After a hasty, preliminary battle-damage assessment, the destroyers *Russell, Hewitt,* and *Laboon* and the submarine *Jefferson City* that evening launched a second strike of seventeen cruise missiles on four of the

initial targets.[64] According to Defense Secretary Perry, the targets were air defense installations in southern Iraq and not Saddam's forces in northern Iraq, because the primary goal was protecting the aircrews flying missions into the newly expanded no-fly zone.[65] Perhaps more important, the United States announced it would unilaterally extend the southern no-fly zone from the thirty-second to the thirty-third parallel, depriving Saddam of the use of two airbases and a large military training range and bringing the northern border of the southern no-fly zone near the suburbs of Baghdad.

Operation Southern Watch air patrol missions, after standing down on the day of the cruise missile attack, resumed on the morning of September 4. All aircraft patrolling the no-fly zone remained above 20,000 feet; the previous restriction had been 15,000 feet with momentary excursions allowed down to 10,000 feet. U.S. military leaders, however, felt that, with coalition aircraft remaining above 20,000 feet, the effectiveness of Iraqi AAA and the Roland anti-aircraft system would be limited, although coalition aircraft would remain in tactical effective range of SA-2, SA-3, SA-6, and SA-8 missile systems. Aircrews anticipated some activity from Iraqi fighters or SAM systems on this first day following Desert Strike.

The first mission, flown on the morning of September 4, was a coalition effort consisting of F-15s, F-16CJ Wild Weasels equipped with AGM-88 HARMs, EF-111s, and British Tornado strike and reconnaissance fighters. The French Air Force had announced a cessation of military activities until further notice in protest over the U.S. actions. The mission took place in the vicinity of Basrah, located south of the thirty-second parallel within the original no-fly zone and assessed to have an operational SAM site. Aircrews were

instructed not to respond to a "lock-on" by Iraqi Roland systems, which had a maximum effective altitude of approximately 16,000 feet and were believed to be no threat. Throughout the sortie, Iraqi Roland radar systems illuminated coalition aircraft, but Iraq did not fire any AAA or missiles, and the mission returned to Dhahran safely.

The first mission north of the thirty-second parallel into the newly expanded no-fly zone was scheduled that afternoon. The mission consisted of F-15s, F-16CJs, and EF-111s; no strike aircraft were included because it was believed that, based on the location of the designated orbit point, Iraqi fighters—not SAM or AAA systems—would pose a challenge if one were forthcoming. The mission proceeded without incident until the package was beginning to return south of the thirty-second parallel to Dhahran, when AWACS controllers reported two Iraqi fighters inbound. As the F-15s responded to the threat, an SA-8 SAM radar illuminated one of the F-16CJs. Two of the F-16CJs acquired the SA-8 with their HARMs, while the SA-8 "spiked," or illuminated, a second F-16CJ. The flight lead directed one of the F-16CJs to fire on the SAM, and he launched a HARM. The SA-8 radar indications quickly disappeared, indicating the system was either destroyed or suppressed. In the meantime, the inbound Iraqi fighters turned back to the north prior to crossing the thirty-third parallel, and the mission returned safely to Dhahran. During the return flight, controllers reported large amounts of AAA activity in Baghdad, although no coalition aircraft were anywhere near the Iraqi capital. The U.S. fighters' flight return time lasted approximately eighty minutes, by which time CNN had already broadcast preliminary reports on the SA-8 engagement.

During the next week, U.S. intelligence indicated that

Iraqi troops were retreating from the Kurdish region in northern Iraq. There were disturbing reports that the Iraqi military had successfully broken a long-standing covert operation funded by the Central Intelligence Agency (CIA) to destabilize Saddam's regime, culminating in the arrest and alleged execution of more than 100 Iraqis associated with the effort.[66] In the South, Saddam began aggressively rebuilding the air defense installations damaged in the Desert Strike cruise missile attacks. In addition, there were indications that Iraq had began moving mobile SAMs, such as the SA-6 and the SA-8, to various locations in the southern no-fly zone.[67] On the basis of this information and the SA-8 engagement, the Joint Task Force Southwest Asia commander ordered that absolutely no allied aircraft would enter the no-fly zone without dedicated F-16CJ Wild Weasel support. This directive placed an added burden on the twelve F-16CJs located in Dhahran. All non–Southern Watch training missions for the Wild Weasels ceased, and signs emerged that the unit would not immediately return to their home stations when their replacements arrived in mid-September. In the meantime, France agreed to rejoin OSW, but only for missions south of the original thirty-second parallel—in effect, not recognizing the newly expanded no-fly zone.[68] Coalition flights in the northern and southern no-fly zones continued without incident, and the move from Dhahran to PSAB continued at a steady pace, with units already in place setting up billets, maintenance, and other infrastructure requirements. Unit commanders anticipated full deployment to PSAB by October 1.

On September 11, an Iraqi SA-6 fired on two Air Reserve F-16s in the northern no-fly zone near the city of Mosul. The pilots had only several seconds to react; mis-

siles were rocketing toward them almost as soon as the engaged pilot had an indication on his radar warning receiver that Iraqi radar had illuminated him. The missiles missed, and the F-16s successfully egressed the area. A flight of F-15E Strike Eagles later tried to reacquire the mobile SAM site but were unsuccessful. According to the Pentagon, Saddam had ordered his anti-aircraft gunners and pilots to try to destroy any U.S. aircraft they encountered.[69] The Iraqis reportedly launched a SAM out of Tallil airfield in the southern no-fly zone, although there were no coalition aircraft operating in the area at the time. U.S. pilots bragged among themselves that Saddam had put a bounty on their heads.

The United States reacted quickly, immediately deploying eight F-117 Nighthawk stealth fighters to al-Jaber Air Base in Kuwait and four B-52s to Diego Garcia. On September 13, all aircraft immediately deployed from Dhahran; seventeen F-16CGs and six F-16CJs were sent to Sheikh Isa Air Base in Bahrain and the remaining aircraft flew to their new home at PSAB. An additional twelve F-16CJs and eighteen F-16CGs were sent to PSAB from their home stations in the United States. The force in Bahrain was available to augment the fighters in Kuwait in the event air strikes were required, because Saudi Arabia still refused to allow air strikes into Iraq flown from its territory. The carrier *U.S.S. Enterprise* entered the Gulf to join the U.S.S. *Vinson.* The Pentagon also announced it was sending an additional 5,000 soldiers from Fort Hood, Texas, to Kuwait to complement the 1,200 soldiers stationed there. That same day, Baghdad announced it was suspending action against U.S. jets enforcing the no-fly zones.[70]

Through the rest of September and October, the situation appeared to cool. Amid reports that Barzani's KDP

was now trying to distance itself from Saddam,[71] the United States began evacuating Iraqi Kurds who had worked with U.S. aid groups in northern Iraq to U.S. military facilities in Guam, where they awaited transportation to the United States.[72] Kurdish factional fighting continued until a U.S.-brokered truce took effect on October 22. The coalition continued flying more than 100 sorties per day in support of OSW without any serious challenges. The *Vinson* departed the Gulf on October 6, leaving only the *Enterprise* carrier battle group on station. U.S. intelligence reported that Saddam had successfully rebuilt his air defense network by mid-October and continued to rotate his mobile SAM sites constantly, but Iraqi air defense had not threatened coalition aircraft since the engagement at Mosul on September 11.[73]

The situation changed in early November 1996. Two more engagements with Iraqi SAMs occurred in the southern no-fly zone, several days before the U.S. presidential election. On November 2, an F-16CJ fired a HARM on a Roland radar system after a British Tornado fighter reported being electronically "locked on" northeast of Tallil. On November 4, another F-16CJ responded with a HARM near al-Kut in the newly expanded no-fly zone after another Roland reportedly illuminated an F-16CG. While the Roland itself was no threat to the coalition forces flying above 20,000 feet, following the September 11 episode near Mosul, aircrews were now free to react to any "lock-on" radar threat. In both encounters, Iraqi radar indications disappeared after U.S. jets launched the HARMs, and Iraq denied that it had made any attempt to lock on coalition aircraft, calling it "American-style electioneering."[74] Amid charges in the press of faulty radar warning receivers and overly aggressive U.S. pilots, Defense Secretary Perry con-

vened a formal investigation on the missile firings on November 6. Although the investigation confirmed that Iraqi threat emitters had indeed been operating and that the performance of the aircrews had been highly professional and appropriate under the rules of engagement, the investigation left some U.S. aircrews feeling bitter. Many had flown combat sorties in Iraq incessantly for more than five months, and they considered unfair the added stress of a formal investigation into what they knew was a justified reaction in a time-critical, hazardous environment.[75]

The *Enterprise* left the Gulf for its home port on November 25, replaced by the *Roosevelt* carrier battle group then patrolling the Mediterranean. On November 26, the Iraqi government agreed to proceed with the UN-monitored oil-for-food deal under UN Resolution 986, which was first offered in April 1995 and previously rejected as an insult to Iraqi sovereignty. Shortly after December 1, aircraft that had been deployed for the crisis began returning home, with the F-117s departing the first week, followed by the fighters temporarily stationed at Sheikh Isa Air Base in Bahrain. Most of the recently deployed troops returned home by the holidays, and the Desert Strike crisis came to a close.

In hindsight, the September 1996 crisis appears to have been a lost opportunity for the U.S. coalition and a victory for Saddam. In a situation in which economic and political turmoil had weakened Iraq, Barzani's invitation to assist the KDP presented Saddam with a timely opportunity he was able to exploit fully. He settled a grievance with a Kurdish faction that had defeated two of his regular army brigades in March 1995 and completely annihilated U.S. intelligence-gathering efforts in northern Iraq. Nearly 6,500 Kurds and members of the

opposition Iraqi National Congress left the area, and any subsequent covert operations in northern Iraq against Saddam's regime would have to start from scratch. He drove another wedge in the coalition and must have been very pleased with the decision by Turkey and Saudi Arabia not to allow the coalition to launch air strikes from their territory. France's refusal to recognize the newly expanded no-fly zone must also have been cause for celebration in Baghdad. By finally accepting the oil-for-food deal, he was able to provide his population with sorely needed economic relief. Finally, and perhaps more important, he proved to his own Republican Guards that he continued to be a "manly" warrior, capable of defying the West, threatening allied fighters patrolling the no-fly zones, and providing his army with a much-needed military victory in Irbil.[76] One pundit bluntly stated:

> He threw sand in the face of the Iranians, his military was able to claim victory by beating up some Kurds, he took back land, and he stood up to the Great Satan. The only price he paid was losing some airspace. What does he care? Iraq is a land power, not an air power.[77]

Saddam surely paid a price for his decision. The Iraqi Air Force had ceased to play any major role in Iraqi airspace since the Gulf War, and the expansion of the no-fly zone in the South was one more humiliating reminder that Iraq did not maintain sovereignty over 60 percent of its airspace. Although they placed additional pressure on OSW mission requirements, allied fighter patrol flights to the outskirts of Baghdad provided the coalition with an enhanced, early-warning capability regarding any hostile Iraqi moves against Kuwait and Saudi Arabia. The new restrictions also denied Saddam the use of two important

airfields and a major training area and presented a provocative tactical problem for Iraqi defenses in Baghdad, now forced to contend with allied fighters operating much nearer to the capital and its high-value targets.

Nevertheless, the Iraqi attack on Irbil highlighted a limitation in Washington's abilities to contain Saddam in northern Iraq. Without the ability to employ forces from nearby Turkey, and because of the area's distance from land-based and carrier-based air assets in the Persian Gulf, the coalition had few options—other than an all-out aerial assault on Baghdad—to stop the armored attack on the Kurdish city. The "pinprick" cruise missile strikes against air defense sites in southern Iraq were merely an irritant; the Iraqis rebuilt the sites and made them fully operational within a month. It must be acknowledged, however, that the cruise missile strikes may have sufficiently deterred Saddam from any further advances north of the thirty-sixth parallel.

Dissension within the coalition, highlighted for the first time by Saudi Arabia's refusal to allow Dhahran to stage air strikes, demonstrated a growing "sanctions fatigue" among the allies, and France, Spain, Russia, and China condemned the cruise missile strikes. Prior to September 1996, Saddam's domestic political situation may have been the most precarious since Desert Storm, but with the unwitting help of Massoud Barzani, he emerged at perhaps his strongest point in the post–Desert Storm period. As Paul Wolfowitz stated,

> Unless something is done to restore American credibility, what is left of the coalition will collapse completely, and Saddam Husayn, who is already much better off today than he was three weeks ago, will become far more dangerous a year from now.[78]

The B-1B Lancer is a long-range, strategic bomber, capable of flying intercontinental missions without refueling. (U.S. Air Force photo)

December 1998: Operation Desert Fox

The UN Special Commission (UNSCOM) crises, culminating in Operation Desert Fox in December 1998 and continuing as of this writing, consists of four crises that nearly led to U.S. and coalition air strikes against Iraq in November 1997 and February and November 1998. Beginning with the infamous "parking lot" incident in September 1991,[79] the post–Desert Storm period has been characterized by constant tension between Iraq and the UN and the United States regarding the inspections regime. One can trace the origins of this fourth crisis to a series of inspections-based crises that began in October 1997.

Beginning on September 29, 1997, and continuing through the first two weeks of October, Iraqi and Iranian

fighter aircraft violated the southern no-fly zone numerous times. Iranian jets attacked bases of the insurgent Iranian Mujahedin-e Khalq (MEK) in southern Iraq, and Iraqi warplanes rose to defend their airspace.[80] U.S. aircrews flying OSW patrol missions evacuated the no-fly zone during these engagements for fear of becoming involved in a potential conflict between Iraq and Iran.[81] Following a major Iranian naval exercise in the Persian Gulf on October 11, the U.S.S. *Nimitz* sailed into the region two weeks early, arriving on station on October 12.[82] Perhaps emboldened by the lack of U.S. fighter response to no-fly zone violations and a perceived disarray in the UN Security Council, Saddam initiated a series of escalating provocations, beginning on October 23 with a demand that the UN cease all economic sanctions on Iraq. Shortly thereafter, Saddam halted all UNSCOM inspection activity, accusing U.S. team members of espionage; demanded that U.S. reconnaissance aircraft stop monitoring Iraq's compliance with UN resolutions, threatening to shoot down any U-2 aircraft conducting reconnaissance missions; tampered with UNSCOM camera monitoring devices; and on November 13 expelled from Iraq all U.S. members of UNSCOM.[83]

The UN reacted by withdrawing the entire inspection team from Iraq and refusing to allow Saddam to determine the UNSCOM inspection team composition. Following a unanimous Security Council vote, the UN passed Resolution 1137, which condemned Iraq for not cooperating with UNSCOM, created a highly-restrictive travel ban for Iraqi citizens in and out of their country, and warned of severe consequences if Iraq did not comply with the inspections. Within the next five days, the United States deployed the *George Washington* to join the

Nimitz; increased the number of cruise missile–bearing ships in the Persian Gulf; deployed six B-52s to Diego Garcia; and sent six F-117s, two B-1s, and twenty-eight additional fighter aircraft to Kuwait and Bahrain. By November 20, Russian diplomats had brokered several agreements with Iraq to allow the UNSCOM team to continue its work with its U.S. members. Nevertheless, Washington maintained its recently bolstered force in the area and continued to deploy additional troops, totaling 30,000 by the end of November.[84]

Within six weeks, tensions had escalated again. In the middle of December, Iraq declared all of Saddam's presidential palaces off-limits to UNSCOM inspectors; one such complex encompassed almost 40,000 acres of land. In the middle of January, Iraq denied UNSCOM inspectors access to additional sites suspected of containing information related to earlier evidence that the Iraqis were testing biological and chemical agents on prisoners. By January 28, a third carrier, the U.S.S. *Independence*, moved toward the Gulf, and Secretary of State Madeleine Albright hinted that time for Iraqi compliance was running out.[85] U.S. forces began refining potential target lists, even as Iraqi citizens were voluntarily allowing themselves to be used as "human shields" at Saddam's presidential palaces in the event of a coalition air strike. By February 17, the United States had deployed an additional 8,000 troops to the Gulf, including a marine expeditionary force and additional F-117s, F-16s, and B-52s. The Pentagon, indicating that military strikes were imminent, dubbed the deployment "Operation Desert Thunder." Coalition forces in the region included 350 fighters and nearly 38,000 troops. USCENTCOM commander Gen. Anthony Zinni announced that the United States had forces in place for an air assault on Iraq.[86]

On February 20, with time for a peaceful solution dwindling, UN secretary general Kofi Annan flew to Baghdad to reach an agreement with Saddam allowing the UNSCOM inspections to continue. Annan signed a memorandum of understanding with Saddam on February 23 providing for "unconditional and unrestricted" inspections and destruction of biological weapons, nerve agents, and missiles in exchange for the inclusion on the UNSCOM inspection team of additional diplomatic representatives more sensitive to the plight of the Iraqi people. President Clinton tentatively approved the deal but declared that the recent military build-up—the largest since Desert Storm—would remain in place until Iraq's actions verified compliance with the inspection regime.[87] By avoiding a military confrontation for the second time in four months, the Clinton administration demonstrated its willingness to "go the extra mile" in developing an international consensus and cooperating with the UN, factors crucial in sustaining Arab support for containment efforts against Iraq. By March 10, a UNSCOM team led by Scott Ritter announced it had inspected eight sites in Iraq without interference. This second inspection crisis was evidently over.

Nevertheless, the newly deployed coalition forces remained until June, when they began returning to the United States. By that time, the continuous deployments and reactive nature of the U.S. military response to challenges from Saddam had taken a toll on the U.S. forces' morale, readiness, and retention. A bipartisan delegation of senators on a fact-finding mission to the Persian Gulf in May 1998 reported low morale throughout the ranks in all services.[88] A crisis had developed in the air force, with increasingly fewer pilots accepting a six-year

commitment beyond the initial obligation required for pilot training. As of June 1998, only 25 percent of eligible pilots had accepted the aviation continuation pay bonus for the fiscal year; the U.S. Air Force's goal was 50 percent.[89] Low retention rates in all ranks in all services threatened a return to the "hollow force" of the late 1970s. Overall attrition rates increased to 32.5 percent in the air force, and surveys determined that service pay was 14 percent below the pay for comparable positions in the civilian sector.[90] Reasons for the drop in retention included poor quality of life; poor pay and retirement benefits; a lack of spare parts for equipment, which contributed to declining mission capable rates; and the lure of better pay and stability offered by a booming civilian economy. A primary reason cited for dissatisfaction with the military lifestyle was increased time away from home because of the increased tempo of operational deployments.[91] While the size of the U.S. military had shrunk by more than 40 percent since the end of Desert Storm, deployments increased by nearly an equal amount. The Clinton administration had deployed U.S. forces abroad fifty times in five years, compared to only eighteen times during the Reagan administration and fourteen times during the Bush administration.[92] Clearly, the continuous deployments to southwest Asia to contain Saddam were a primary factor in the exodus. Characterizing this frustration, one pilot said,

> We're tired of droning holes in the sky; protecting allied airspace where we're not welcome. They shackle us in the air, on the ground, and during our off time. They expect it, and they don't respect us. We've become instruments of foreign policy before the fact, and we're not doing a damn for the American way of life.[93]

In addition, America's constant presence in southwest Asia had become a huge financial drain on the U.S. defense budget. The estimated cost to maintain the additional force levels required by the increased tensions in the Gulf between October 1997 and June 1998 exceeded $1.2 billion.[94] Analysts claimed that the U.S. presence in the Gulf since the end of Desert Storm had cost Washington nearly $7 billion, with the no-fly patrol budget for fiscal year 1999 set at $850 million.[95] Clearly, something had to be done to address the situation.

Beginning in May 1998, the Defense Department announced its intention to reshape military forces in Southwest Asia by drastically reducing the number of deployed ground and air forces. Troop levels would shrink from 38,000 to 20,000, and only one aircraft carrier would remain on duty in the Persian Gulf.[96] By November 1998, the United States had nearly halved its military presence in the region, while doubling the number of cruise missiles available for launch. In February 1998, there had been 430 aircraft and 34 naval ships in the area. By November, only 174 aircraft and 21 ships remained, although nine of the naval vessels carried a total of nearly 300 Tomahawk cruise missiles.[97] This realignment of forces made Saudi Arabia's approval for air strikes against Iraq much less important. The increased reliance on cruise missiles launched from ships in the Gulf and from B-52s based in Diego Garcia also allowed a quicker strike capability because the United States could spend less time securing permission and coordinating with Gulf states for yet another exhaustive and costly redeployment of forces.

Acknowledging that frequent, lengthy, and unexpected overseas deployments were the main reason for the drastic drop in personnel retention, the air force announced in

August that it was reorganizing from a primarily garrison force to an expeditionary air force.[98] Under the plan, scheduled to take effect in October 1999, the air force would restructure itself into ten separate air expeditionary forces, or AEFs, each assigned approximately 240 aircraft and 7,000 combat and support personnel. Deployments were to be limited to once every fifteen months for a ninety-day period; two AEFs would be on call at all times. According to U.S. Air Force chief of staff Gen. Michael Ryan, the air force would schedule and rotate the AEFs in such a manner to bring much needed predictability and stability to the lives of service personnel.[99]

Throughout the summer and early fall of 1998, the Department of Defense unveiled other initiatives to address the declining morale, retention, and readiness of the armed services. After more than a decade with no real boosts in military spending, Congress championed increased defense budgets, pay raises for service personnel, and reformed retirement benefits as long-overdue remedies for an ailing U.S. military. The November 1997 and February 1998 episodes highlighted weaknesses in America's military commitments to the Gulf, and Congress and the Pentagon began to respond accordingly.

Amid these changes, provocative events continued in Iraq and the Middle East. With U.S. policymakers addressing military readiness issues and President Clinton embroiled in a domestic political scandal, Iraq began to test the limits of U.S. resolve once again. On June 30, 1998, an F-16CJ launched a HARM at an Iraqi SAM radar site in southern Iraq after the radar had locked onto a patrolling British GR-1 Tornado. Although Baghdad denied illuminating any of the ten U.S. and British fighters in the patrol, the situation served as a reminder of the

risks involved to aircrews flying Southern and Northern Watch missions.[100] In a July 21 address to the Revolutionary Command Council, Saddam strongly warned that Iraq would not allow any party, including the United States or UNSCOM, to prolong the economic embargo, and he called for an immediate lifting of the sanctions.[101] On August 3, the Revolutionary Command Council announced it was suspending cooperation with UNSCOM and the International Atomic Energy Agency (IAEA) until a new UNSCOM could be formed with fewer "Anglo-Saxons."[102] Finally, after Iraqi officials continuously barred his inspection of key facilities, UNSCOM inspector Scott Ritter resigned on August 26. In his resignation announcement, Ritter stated that Iraq could have ballistic missiles capable of delivering chemical and biological weapons within six months. In addition, Ritter accused U.S. officials of coercing UNSCOM inspectors not to recommend inspections of sites that might provoke an undesired confrontation with Saddam.[103] Indeed, by the end of September, UN inspectors stated they were no longer capable of performing their duties in Iraq. Allowed only to monitor previously inspected sites, they were denied the ability to perform intrusive, random inspections on new facilities.

On November 1, President Clinton declared the United States would again consider military strikes against Iraq if Saddam did not begin to cooperate with UN weapons inspectors.[104] The United States based its authorization to conduct legitimate combat operations on the UN resolutions of November 1997, and Secretary of State Albright stated that Iraq's total lack of cooperation with the UN had alienated Iraq's defenders and reinvigorated the coalition against Saddam.[105] The reconfigured forces in the

Gulf now provided the coalition with the capability to do what a much larger force had been poised to do in February before the Annan-brokered deal with Saddam. The primary sources of power in Saddam's regime had become targets, and on November 7, the UN began withdrawing weapons inspectors from Iraq.[106]

On November 11, President Clinton ordered additional forces to the Gulf in preparation for military action. An additional 4,000 troops deployed to Kuwait, along with twelve F-117s and eighteen British GR-1 Tornadoes. An AEF consisting of six B-1 bombers and thirty-six fighter aircraft landed at Sheikh Isa Air Base in Bahrain, and a dozen B-52s equipped with ninety-six cruise missiles arrived at Diego Garcia.[107] The *Enterprise* battle group steamed toward the region. The State Department withdrew all nonessential personnel from Israel and Kuwait, and Secretary of State Albright remarked that there would be no further warnings.[108] Again, as an imminent indicator of air strikes, the latest Gulf build-up was christened "Operation Desert Viper."

Perhaps even more meaningful, on November 12, eight Arab states, including Egypt, Syria, and Saudi Arabia, issued a statement holding Iraq responsible for the impending confrontation. Russia and France, typically quick to defend Iraq, remained silent over Saddam's outright defiance of the UN.[109] Some analysts speculated that other Arab nations, which in the past had been more sympathetic to Iraq, were suffering their own form of "Saddam fatigue" and that they might be more willing to support the coalition because of U.S. efforts in the Israeli–Palestinian Wye agreement.[110] For the first time since the October 1994 crisis, the coalition appeared united in its opposition to Saddam.

On the evening of November 14, B-52s lifted off from Diego Garcia for cruise-missile strikes anticipated to be the beginning of a sustained air campaign that would continue for several days. Mere hours after takeoff, however, the mission was canceled because Iraq had made an offer to the UN to allow UNSCOM inspections to continue.[111] President Clinton demanded that Iraq prove its good intentions by giving inspectors unrestricted access to suspected sites and providing any documents related to its weapons of mass destruction (WMD) program. Forces in the Gulf would remain in place and on alert to ensure Saddam did not lapse into his usual "cheat and retreat" scheme.[112] Some analysts were skeptical:

> Iraq just taught the world how to put the most powerful military in history on a leash: plant your vulnerable assets in cities, broadcast the misery of your people, and convince U.S. leaders that political defeat is the price of military victory. It's an ingenious variation on the old threat to shoot yourself if you don't get your way. The finest military in the world is useless if you can't—or won't—use it.[113]

Coalition suspicions proved to be well-founded when, within three weeks, Saddam again defied UNSCOM. Helicopters reportedly buzzed one inspection team, while Iraqis denied others access to sites. With the Muslim holy month of Ramadan about to begin on December 18, inspectors held little hope for enforcing Iraqi cooperation with the inspections regime.[114]

On December 15, then-UNSCOM chief inspector Richard Butler issued a ten-page report to the UN Security Council detailing Iraq's latest belligerence. Butler claimed that Iraq had not provided the full cooperation

it promised on November 14 and had in fact introduced new restrictions into the inspection process, ensuring no progress in the areas of disarmament and failing to account for its prohibited weapons programs.[115] Coalition military forces remained largely in place from the crisis of the previous month, and targets and attack plans required little updating. The next evening, with an impending vote to impeach President Clinton in the House of Representatives, Operation Desert Fox began.

On the night of December 16, the president ordered a "strong, sustained series of air strikes" against Iraq that lasted four consecutive nights.[116] The military objectives of Desert Fox were reducing Iraq's capability to produce WMD, degrading strategic and tactical command-and-control facilities, damaging industrial infrastructure used for smuggling gas and oil, and reducing Iraq's overall capability to threaten its neighbors in the region.[117] Targets for the four-night campaign included installations associated with development of WMD, units providing security to WMD programs, and Iraq's national command-and-control network. In addition, the air strikes attacked Republican Guard units and facilities; airfields; air defense and SAM sites; and the Basrah oil refinery, which was involved in the production of illegal gas and oil exports.[118] Target locations covered the entire country, including Baghdad, Mosul, Basrah, Tikrit, and al-Kut.[119] The first night's attack involved only U.S. Navy assets with approximately 200 cruise missiles and aircraft launched from the *Enterprise.* Subsequent nights involved British Tornadoes and U.S. Air Force assets as well, including B-52s equipped with cruise missiles; F-16CGs and CJs; F-15Es and Cs; and, for the first time in combat, B-1 bombers. A second carrier, the *Vinson,* journeyed to the Gulf with six additional

warships carrying Tomahawk cruise missiles.[120] Twelve F-117 Stealth fighters redeployed forward to Kuwait, although they arrived too late to participate in the hostilities. As anticipated, of the approximately 200 combat aircraft in the region, none of the almost sixty aircraft based in Saudi Arabia or the aircraft based at Incirlik, Turkey, participated in the attacks.[121] The United States used carrier-based aircraft in the strikes or aircraft flown from Kuwait, Bahrain, Oman, the United Arab Emirates (UAE), and Diego Garcia.

In seventy hours of intensive air strikes, the coalition flew 650 sorties against approximately 100 targets and sustained no casualties. A total of 415 cruise missiles were launched, including 325 Tomahawks fired by the U.S. Navy and 90 heavier cruise missiles from U.S. Air Force B-52s.[122] Strikes hit and damaged more than 80 percent of the designated targets—strikes which Pentagon analysts assessed had set back Iraq's ballistic missile program one to two years.[123] Baghdad's claims of forty-two civilians killed and ninety-six wounded, while unsubstantiated, were remarkably few;[124] as many as 2,000 Republican Guard members may have died in the attacks, including several key individuals in the upper hierarchy of Iraqi leadership. Likely more than twice that number were injured.[125] Analysts estimated the cost of the four-day assault, at that time the largest military combat operation since Desert Storm, at nearly $500 million.[126]

Almost immediately after the campaign, the United States began reducing Persian Gulf military strength to normal levels. The *Enterprise* departed the region, leaving only the *Vinson* in place. Many of the recently deployed aircraft, which for the most part had been on station since early November, were scheduled to return to their home

bases, as were the approximately 7,000 troops that had bolstered the regular 20,000-strong force. U.S. commanders felt, considering Iraq's almost complete lack of serious resistance to the air strikes, that the presence of a significantly beefed-up force was unnecessary and that the normal, continuous, day-to-day forces for Northern and Southern Watch were adequate.[127]

On December 26, following the by then-familiar pattern, Iraq announced it would fire on any aircraft entering its airspace, including the no-fly zones.[128] In a further act of defiance, Iraq declared a ban on all UN flights into the country, including flights carrying humanitarian relief supplies and food under the oil-for-food program.[129] On December 28, U.S. F-15Es and F-16CJs patrolling the northern no-fly zone responded to an Iraqi SA-3 launch near Mosul in the first of a continuous series of cat-and-mouse confrontations between Iraqi SAM operators and coalition aircrews. U.S. Air Force Brig. Gen. David Deptula, commander of the allied effort for Operation Northern Watch, described that first engagement:

> It was our first mission back in the AOR [area of responsibility] since the conclusion of Desert Fox. We had a well-thought-out plan that gradually moved us from north to south over a period of several hours . . . About the time they were exiting, three of our F-15Es got uncorrelated SAM launch indications, and one SA-3 launch warning. Two missiles were observed passing above the aircraft and exploding. About a minute later, one of our F-16CJs saw a third missile launch, and at the same time, one of the F-15Es happened to be observing a known SA-3 site through his LANTIRN pod from thirty-seven miles away and saw the launch. The mission commander called back to the combined air operations center (CAOC) and requested approval for

> a DEAD [destruction of enemy air defenses] attack . . . It was the fastest approval ever made, seconds from receipt of the request to approval . . . The attack was perfect. First, a couple of F-16CJs launched preemptive HARMs at two other SAM sites in the immediate vicinity of the SA-3 site to keep their heads down while a four-ship of F-15Es rolled in on the launching SA-3 site. Three out of four F-15Es dropped two GBU-12 500-pound precision-guided bombs each for a total of six, all "shacks" [direct hits] on either the radar and optical tracking unit or the command-and-control van. The guy that didn't drop was because he couldn't get a positive target ID—the kind of superior judgment displayed throughout the entire mission.[130]

Overt Iraqi challenges in the no-fly zones quickly became an almost daily occurrence. By January 28, Gen. Anthony Zinni reported that approximately 120 Iraqi fighters had initiated more than seventy penetrations of the no-fly zones since the end of Desert Fox.[131] One of these intrusions included two aerial engagements on January 5 when F-15s and F-14s exchanged air-to-air missiles with Iraqi jets; an Iraqi MiG-23 reportedly crashed in one of those skirmishes after running out of fuel.[132] In addition, there were more than twenty incidents of SAMs fire, AAA fire, or radar illuminations of coalition aircraft patrolling the no-fly zones, resulting in an allied response with precision-guided weapons or HARMs on those sites.[133] During one of these episodes, an AGM-130 air-to-surface missile,[134] fired by an F-15E on January 25, strayed and slammed into a suburb of Basrah, reportedly killing eleven civilians and wounding fifty-nine.[135] As in past confrontations, Saddam offered a bounty to Iraqi air defense troops who shot down an allied aircraft. The weekly *Nabd al-Shabab*

newspaper in Baghdad announced that $14,000 would be paid for the downing of an aircraft, $5,000 for shooting down a missile, and $2,500 to anyone capturing an enemy pilot.[136]

In response to continued Iraqi challenges in the no-fly zones, the United States altered the rules of engagement. In the past, coalition aircraft responded in the no-fly zones only when directly threatened, either by SAM or AAA launches or by radar illumination, and then only toward the site making the actual threat. By the middle of January, coalition aircraft entering the no-fly zones were prepared to respond to any challenges or threats in the no-fly zones with preplanned targets. A perceived threat could be an aerial no-fly zone incursion by an Iraqi fighter or merely an Iraqi acquisition radar observed in operation, regardless of whether it had illuminated a coalition jet or not. In essence, allied response had evolved from a "reactive" approach to a "preemptive" approach. According to General Zinni,

> We have the authority to react and attack any part of the air defense system any time there's a threat, and it's not particularly geared to the cause of the threat . . . [W]e then can attack the missiles, communication, early warning radars—any part of the system.[137]

A Pentagon official explained it in clear terms: "Rather than go after the bait, they went after the trap."[138]

By February 2, U.S. and British warplanes had attacked more Iraqi anti-aircraft and SAM batteries since Operation Desert Fox than they had done during the four nights of the operation.[139] In what the media called a "low-level war of attrition," Pentagon officials said the air strikes would continue as long as Iraq continued to contest the

no-fly zone patrol missions.[140] After initially doubling the number of SAM systems in the no-fly zones in the weeks following Desert Fox, Iraqi forces began withdrawing missile batteries, radar, and other equipment from the North and South in an evident effort to preserve them from destruction.[141] The Pentagon deliberately downplayed the continuing air strikes against Iraq in an effort to avoid antagonizing neighboring Arab countries who tacitly approved of the campaign but deplored the impact it was having on the Iraqi people. In a show of support for its Gulf allies, the United States agreed to sell AMRAAM missiles to Saudi Arabia, Bahrain, and the UAE, and offered to share data gleaned from American monitoring of any Iranian and Iraqi missile tests.[142] In addition, the United States agreed to help Egypt begin a major military modernization program with $3.2 billion in subsidized arms sales, including twenty-four F-16s, a Patriot SAM battery, and 200 heavy tanks.[143] More important,

> the Pentagon had found a way to revive the administration's beleaguered containment policy. With the UN mission defunct, no viable opposition groups to replace Saddam and growing international pressure to ease the effects of the economic embargo on the Iraqi people, the low-grade air war had become the centerpiece of Washington's strategy.[144]

The weeks following Desert Fox proved that the four-day attack in December had taken a significant toll on Saddam. The broader rules of engagement had resulted in almost-daily air strikes and eroded his combat capability, with estimates that the strikes had destroyed as much as 25 percent of the country's air defense network.[145] Saddam began to show the strain of the attacks by lashing out at perceived enemies inside and outside Iraq. In steady

succession, Iraq expelled U.S. and British relief workers in the oil-for-food program from the country;[146] threatened to revoke Iraq's recognition of Kuwait's sovereignty;[147] called for the overthrow of the governments of Egypt, Jordan, Saudi Arabia, and Kuwait;[148] stormed out of a meeting of the Arab League after the organization insisted that Iraq renounce all militaristic intentions against its neighbors and comply with all UN resolutions;[149] and issued a threat to attack bases in Turkey, Saudi Arabia, and Kuwait if they continued to allow allied aircraft based there to fly no-fly zone patrol missions.[150] In addition, Kuwaiti ambassador to the United States Muhammad al-Sabah reported that Saddam had denied ammunition and logistic supplies to his regular army units to discourage any rebellion attempts. As a result, the people and the regular army appeared to be in one camp, while the regime and its Republican Guard and security apparatus were in the other.[151] Indeed, reports indicated that on March 8, 1999, Iraq executed twenty-four army officers, including a major general who formerly commanded Baghdad's air defense system, after accusing them of conspiring against Saddam.[152] America's bolder, tougher policy toward Iraq included growing support for Iraqi opposition groups—a "containment-plus-regime-change" policy.[153] The post–Desert Fox air campaign showed signs of having a real impact on the morale of Iraqi military forces, and U.S. officials publicly professed hopes of a military coup inside Iraq against Saddam: "The message [the United States] is sending both militarily and politically inside Iraq is this is someone dangerous to have as a leader."[154] As a result, Saddam found himself more isolated from the rest of the world than he had at perhaps any time since Desert Storm.

NOTES

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2. LANTIRN-capable F-16s are equipped with automatic terrain-following radar and navigation and targeting pods that allow delivery of precision-guided munitions, such as laser-guided bombs. The Thirty-third Tactical Fighter Squadron was not equipped with targeting pods during this deployment.
3. This information and subsequent references to the Thirty-third Squadron's activities provided by Col. Gary L. North, interview with author, Washington, October 28, 1998.
4. The AIM-120 AMRAAM is a radar-guided, all-weather, beyond-visual-range air-to-air missile. The AIM-9 Sidewinder is a supersonic, short-range, heat-seeking air-to-air missile with a passive infrared guidance system. Both missiles have high-explosive warheads.
5. Colonel North interview, October 28, 1998.
6. In an effort to aid a starving population barely surviving in a chaotic political climate, President Bush had given full support to "Operation Restore Hope." The first U.S. Marine force of 1,800, scheduled to grow to an allied coalition force of over 30,000, waded onshore in Somalia on December 10 under intense media coverage.
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8. "Iraq Charges Aggression," *ES&S,* December 29, 1992, p. 1.
9. "U.S. Holds Fire as Iraqis Return to No-Fly Zone," *ES&S,* December 30, 1992, p. 1.
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11. "Iraq Shifts Missiles into No-Fly Zone, U.S. Officials Say," *ES&S,* January 6, 1993, p. 1.
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13. "Bush May Give Saddam 48 Hrs. to Move Missiles," *ES&S,* January 7, 1993, p. 1.

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The F-22 Raptor Advanced Tactical Fighter is an air-superiority fighter with a sophisticated sensor suite that allows the pilot to track, identify, and shoot the threat before it detects the F-22. (Photo courtesy Boeing)

Chapter 4

AIR POWER, CONTAINMENT, AND LESSONS LEARNED

More limited objectives than all-out war and total defeat are the hallmarks of modern U.S. military operations . . . Aerospace power—the synergistic application of air, space, and information systems—provides the United States with asymmetrical advantages over all other nations.

—Gene Myers, Air Force Times[1]

America's confrontations with Iraq in the post–Cold War era provide several key lessons on the effectiveness of air power as a foreign policy tool and have important implications for future challenges to the U.S. Air Force as the twenty-first century approaches.

AIR POWER: ENGAGEMENT, TACTICS, AND STRATEGY

Iraq's heightened efforts to shoot down pilots patrolling the no-fly zones reflect Iraqi president Saddam Husayn's need to remain defiant and show the rest of the world, particularly Arab League member nations, that he is still a warrior and that his military remains capable of inflicting damage. This reaction has become routine; after every allied air strike in every crisis (January 1993, October 1994,

September 1996, December 1998), he reacted in the same fashion, including by making false claims of success.

The man who once said, "Yours is a society which cannot accept 10,000 dead in one battle"[2] is well-aware of the potential impact the televised sight of a U.S. pilot, dead or alive, paraded through the streets of Baghdad would have on America's psyche and its will to sustain air operations in Iraq. Yet, in full-scale, dedicated military campaigns with concrete objectives, Americans have seemed willing to risk large amounts of casualties. Prior to actual combat, estimates for Operation Desert Storm climbed as high as 10,000 American casualties with 1,500 probable killed-in-action.[3] The same risk-acceptance does not apply to limited conflicts with limited objectives, however. This so-called "national aversion to danger" is well documented.[4] The 243 deaths of U.S. Marines in Beirut in 1983 were enough for the United States to withdraw its troops from Lebanon. The deaths of eighteen U.S. servicemen in one day in Somalia in October 1993 led the United States to cease its operations in that destitute country. Air Force Capt. Scott O'Grady's downing and rescue in Bosnia in June 1995 became a huge national media event, complete with book deals and ticker-tape parades. The nineteen deaths in Khobar Towers in June 1996 compelled U.S. military forces to evacuate Dhahran for the perceived safer environment of Prince Sultan Air Base. Some cited this trait as a characteristic of the "Clinton Doctrine," which one analyst defined as:

> the extraordinary importance assigned to avoiding U.S. casualties, thereby advertising America's own point of vulnerability; the hand-wringing preoccupation with collateral damage, signaling that the United States has no stomach for war as such and thereby

> encouraging adversaries to persevere; [and] the reliance on high-technology weapons employed at long range, inviting confusion between the technical capability to hit targets and the achievement of operationally meaningful results . . .[5]

The safety record for the allied enforcement of the no-fly zones has in fact been phenomenal. Since the end of Desert Storm, coalition aircraft conducted approximately 175,000 missions over northern and southern Iraq.[6] During that time, only one aircraft has been lost inside Iraqi territory, in northern Iraq in June 1992 when a French Air Force Mirage F-1 crashed near Irbil. Rescue forces retrieved the pilot without incident. Saddam, however, believes that the odds favor him and that eventually the allies will lose a fighter in Iraq, either by a fortuitous shot from his anti-aircraft artillery (AAA) or surface-to-air missile (SAM) systems, or by simple aircraft malfunction.[7] How the United States reacts to the aftermath of an aircraft downing, should it occur, will be crucial in its dealings with Iraq and Saddam.

Tactically, the Iraqis certainly have the capability to shoot down coalition aircraft. On occasion, they have shown a surprisingly high degree of savvy and situational awareness. The coordination between Iraqi air-to-air and surface-to-air assets in Lt. Col. Gary North's MiG engagement in December 1992, the first Iraqi flight into the newly expanded southern no-fly zone in September 1996, and the September 1996 "SAMbush" attempts following Desert Strike are good examples. The air-to-air skirmishes on January 5, 1999, demonstrated that Iraqi pilots and ground controllers have some knowledge of U.S. air-to-air missile maximum ranges. In both engagements, Iraqi pilots executed escape maneuvers that prevented the successful utilization of America's most sophisticated

aerial weapons. Although Iraqi air defense forces will continue to be hampered by outdated, antiquated weapons systems and a lack of training, they are a willing and able adversary. It would be a mistake to underestimate their threat to allied aircrews.

The U.S. Air Force itself has experienced a significant change in tactics and combat employment in the years since Desert Storm. Iraq has been the proving ground for new weapons, advanced technologies, and attack strategies in real-world combat situations. When Iraq invaded Kuwait in August 1990, air force combat scenarios centered on a Warsaw Pact–type threat, and combat planners assumed low-altitude, primarily daylight penetration by U.S. fighters into enemy territory to avoid radar detection, armed with "dumb" free-fall weapons or tactical nuclear armaments. In the eight years since the end of Desert Storm, stealth technologies, precision-guided munitions, and stand-off weaponry have come to the forefront.

The spectacular successes of the F-117 in Iraq during Desert Storm, with its precision capability in employing laser-guided bombs, have made that stealthy fighter-bomber a weapon of choice in America's armed response. Indeed, during any worldwide crisis, the deployment of F-117s has become a signal to adversaries indicating the seriousness with which Washington perceives the situation. Stand-off, precision-guided weaponry, like the new AGM-130, is making the employment of free-fall bombs the exception rather than the norm. The worldwide impact of almost instantaneous news reports and on-the-spot live coverage of events have increasingly made concerns of collateral damage and civilian casualties a high priority in any air campaign. America's need to maintain regional allied support and UN approval for military operations in the Gulf have made

precision a necessity rather than a desire. U.S. aircraft are increasingly equipped with navigation and targeting pods that allow highly accurate laser-guided weapons delivery. The U.S. Navy retrofitted their F-14s, traditionally an air-to-air platform, with this capability, and the newly equipped jets saw combat for the first time as ground attack platforms during Desert Fox with favorable results. This demand for precision has led the U.S. Air Force to cancel plans to send fighter units to southwest Asia unless the aircraft have the capability to employ precision-guided munitions or antiradar missiles. In January 1999, U.S. Air National Guard units from Virginia, South Dakota, Iowa, Alabama, Colorado, and Indiana did not deploy to the Iraq area of responsibility (AOR) because their F-16s were older, "Block 30" models, incapable of employing these weapons.[8]

The accuracy and reliability of cruise missiles launched from ships or B-52s has improved dramatically since Desert Storm. During Desert Storm, the United States fired 288 cruise missiles, primarily to prepare the battlefield for other air strikes.[9] The attacks on Usama bin-Laden in Afghanistan and Sudan in August 1998 demonstrated their significantly improved capability, and cruise missiles evolved from an adjunct to air strikes to another primary arsenal in the employment of air power. According to Gen. Anthony Zinni, the 425 cruise missiles fired during Desert Fox "far exceeded" the 85 percent accuracy standard.[10] Reliance on cruise missiles has led some Pentagon officials to express concern over the limited stock of these increasingly valuable assets.[11] The success and reduced inventory of conventional air-launched cruise missiles (CALCMs) recently convinced the air force to expand research on the development of a new cruise missile with stealth characteristics and an increased launch range of 1,000 to 2,500

miles—well beyond that of the current CALCM range of 600 miles.[12] Furthermore, America's growing reliance on cruise missiles has breathed new life into an aging bomber fleet. Pentagon planners forecast upgrades to the current cruise missile delivery force, consisting of ninety-three B-1s, twenty-one B-2s, and seventy-six B-52s, in avionics, radar displays, electronic countermeasures, and navigation equipment.[13] Development of new bomber weapons, such as the joint standoff weapon (JSOW) and the joint air-to-surface standoff missile (JASSM), and plans to have the next-generation long-range bomber ready for service by 2037, are directly attributable to the success of the newer generation cruise missiles in Iraq.[14]

The need to limit casualties and collateral damage influences which units deploy for combat operations, what targets mission planners designate for attack, and how aircrews react to split-second, life-and-death situations in the air. Saddam has always been aware of this factor, from highlighting strikes on "baby-milk factories" during Desert Storm and food storage facilities during Desert Fox to his penchant for placing "human shields" around high-value target areas. The continuing confrontations in Iraq represent a change in the nature of warfare with significant implications for the twenty-first century.

These improved capabilities allowed coalition aircraft to conduct the four-day Desert Fox attacks exclusively at night from medium altitudes above the maximum tactical effective ranges of many Iraqi air defense systems. Against an adversary that relies primarily on optical acquisition to launch SAMs and AAA, nighttime strikes greatly increased the survivability of U.S. air power platforms to the point at which it suffered no losses in an intense, highly effective seventy-hour bombing campaign.

In the years following Desert Storm, the air force has devoted much money and training in improving its combat capability for night operations. Active duty, national guard, and reserve fighter units increasingly use night vision goggles, once worn almost exclusively by helicopter pilots. Other vast improvements in tactical intelligence and communications continue to contribute to timeliness, accuracy, and survivability. New tactics, such as those employing F-16CJ "Wild Weasels" and EA-6B "Prowlers" as SAM "hunter-killer" teams,[15] continue to keep America's air forces on the leading edge. Without question, U.S. combat experiences in Iraq have altered the "American way of war," and as Maj. Gen. Charles Wald, U.S. Air Force director of air force strategic plans, commented:

> Air power has become the instrument of choice in America's foreign policy. Air forces, because they are extremely accurate and less vulnerable than ground forces, provide a politically viable instrument of force and oversight to national authorities.[16]

Containment: Enforcing the No-Fly Zones

The concept of no-fly zones has emerged as another new dimension in the use of air power as a foreign policy tool, specifically as a result of America's objectives in Iraq. The no-fly zones have allowed the United States to exert a constant and credible military threat against Saddam. The threat of immediate and precise retaliation by allied air strikes has been a key tool in keeping Saddam "in his box" and preventing him from threatening neighboring states. In addition, the coalition air presence provides important intelligence, reconnaissance, and early warning

information on Iraqi military forces. Brig. Gen. David Deptula elaborates:

> Another factor that causes [the United States] to take notice of no-fly zones as policy tools is that occupying airspace is more like occupying territory than it is like maritime positioning, that occurs in what we declare as international waters. When we set up a no-fly zone, we are seizing an element of sovereign authority (the right to control airspace) on behalf of the world. We are declaring the subjected state to be less than a full member of the family of nations, unfit to govern in at least this one aspect, and under an interdict of sorts. This is a surrogate for war that clearly establishes the rogue status of the subject state . . . [T]his highlights aerospace power as a robust instrument of power intertwined with policy and diplomacy.[17]

The mission of the no-fly zones has matured and expanded since their first use—in northern Iraq in April 1991 to protect the Kurds, and in southern Iraq in August 1992 to protect the Shi'is from Saddam. Their enhancement by the creation of the southern "no-drive" zone in October 1994 signaled that the no-fly zones were now more useful in preventing Saddam and his Republican Guard units from posing an immediate military threat to Kuwait and Saudi Arabia. The purpose of the no-fly zones effectively evolved from the protection of oppressed Iraqi minorities to the protection of border nations.

Furthermore, the no-fly zones have experienced seemingly yet another evolution since Desert Fox. Allied pilots have a much wider authority to attack Iraqi military positions when threatened, which has resulted in almost daily air strikes and in some cases civilian casualties; the coalition has therefore been able to continue warfare on a

limited scale without addressing air base access issues with Turkey and Saudi Arabia. This incremental escalation of the air war represents a substantive change in the Clinton administration's policy toward Iraq. The sustained Desert Fox bombing campaign, increased efforts through the newly established Radio Free Iraq, and increased attention devoted to Iraqi opposition groups indicate a much more aggressive approach with the hope of creating a "coup-friendly environment."[18] As a colleague of the author remarked, "This is not a surrogate for war; it *is* war."

Enforcement of the no-fly zones has carried a high price, in dollars as well as in terms of decreasing morale, readiness, and retention of U.S. armed forces. The drastically increased operations tempo and strain on personnel caused by no-fly zone commitments in an era of reduced budgets and manpower contribute to this dilemma. As detailed earlier, Washington has recently attempted to deal with these problems but has caused an entire "cultural change" within the air force, restructuring not only U.S. forces in southwest Asia but the overall air force organization.[19] With retention and recruitment uniformly depressed in the air force, navy, and army, the services must find a logical solution to this manpower crisis.

Surprisingly, the F-22 may provide a solution to the demanding operations tempo required to sustain the no-fly zones. The F-117, while possessing true stealth capability, is a subsonic, night-strike fighter-bomber with limited air-to-air capability in maneuverability, high-altitude performance, and weapons employment. It was not designed as a counter-air platform. Utilizing the F-22 in what a RAND study has called the "cop on the beat" approach,[20] the United States may significantly reduce the resources devoted to maintaining its presence in the no-

fly zones while still effectively keeping Saddam in check. Under this approach, smaller packages of F-22s, perhaps only a formation of four aircraft, would patrol the no-fly zones strictly at random.

Because of the F-22's stealth qualities and long-range radar and weapons capabilities, Iraqi forces would find it much more difficult to play "cat and mouse" games with an F-22, because they would be much less sure of when the "Raptors" were patrolling. Iraqi fighters making incursions into the no-fly zones would occasionally "disappear" as a result of being destroyed by weapons employed by an unobserved, stealthy F-22, presenting the Iraqis with a huge tactical problem and deterrent. Iraqi SAM operators would have similar problems because of the F-22's stealth characteristics, and equipping F-22s with a "Wild Weasel" capability to destroy SAM sites would only enhance their effectiveness.[21] In times of crisis or unusual activity, units assigned to the air expeditionary force on duty during that period could quickly deploy to meet any challenges.

Although many have expressed concern over the proposed high cost of the F-22, a significantly reduced requirement for fighters, tankers, and support personnel deployed for Southern and Northern Watch would save the air force millions of dollars annually, while drastically reducing current operations tempo requirements. Perhaps just as important, curtailing the demands of these constant deployments would pay huge dividends in improving morale and retention in the air force.

Lessons Learned: Future Implications

Containing Saddam is but one issue; deterring him from further misadventure is another. Saddam took power in

Iraq by force and has retained his position as ruler largely through the continued use or threat of force. In such a regime, the personal survival of the ruler and his immediate political base is paramount; exterior military threats aimed at the welfare of the greater population have little or no effect. Domestic public opinion and economic sanctions have similarly little impact. Therefore, history has shown that deterrence must be immediate and direct for effectiveness in this context. Injury will have to be inflicted not necessarily on the values dear to the country but on those cherished by the ruling elite and most likely on the existence of power by the ruling elite itself.[22]

This concept may indicate why Desert Fox apparently had more effect on Saddam than did the air strikes in January 1993 or September 1996. In the latter cases, the "pinprick" assaults on target areas in southern Iraq had no real impact on his power base, whereas the targets attacked during Desert Fox in December 1998 included the headquarters and bases of the Republican Guard, the primary forces that maintain Saddam's grip on power. Analysts note that Saddam divided Iraq into four districts, each headed by his most loyal and brutal assistants, before the end of Desert Fox, a sign that he was afraid of losing control.[23] The continued air strikes in the no-fly zones, the growing support for Iraqi opposition groups, Saddam's increasing isolation from other Arab nations, and the formal announcement of "regime change" as a goal of U.S. policy keep the pressure on Saddam.

Air strikes have not been successful in toppling the Iraqi government, nor are they intended to be. No one should mistakenly assume that recent events necessarily portend the end of Saddam's reign in Iraq or his ability to cause trouble. Saddam is unlikely to take his own life. His inter-

nal protection apparatus is highly organized and difficult to penetrate. It is probable that opposition elements within Iraq will continue to make assassination and coup attempts, but there is no way to know if they will succeed soon. Although there is much the United States can do to promote regime change in Iraq, the United States cannot absolutely guarantee the end of Saddam's regime in Baghdad, short of a lengthy and costly land campaign.[24] As there is little chance that such a land campaign will occur, the United States has to be prepared for the possibility that Saddam will remain in power for the foreseeable future.

Until a change in the ruling regime occurs, the current U.S. policy of containing Iraq will continue. It is a strategy familiar to Americans; the successful U.S. military containment of North Korea has continued unabated for nearly fifty years. In the post–Cold War era, the United States has successfully used aerospace power as a means of containment, deterrence, and compellence in Bosnia, Sudan, Afghanistan, and more recently in Kosovo, drawing envy and respect from Russia, China, and Iran for this unique strength. America's aerospace advantage, unmatched by any other nation, is the primary factor in maintaining its status as the world's lone superpower.

Although the United States and the UN must now grapple with a solution on how best to implement a broken inspections regime and prevent Saddam's acquisition of WMD and threat to employ them, this should be tempered by the realization that Washington's nine-year effort to contain Iraq's aggressive behavior has generally been successful. Returning to USCENTCOM's mission statement, the United States has in fact promoted and protected U.S. interests, ensured uninterrupted access to regional resources and markets, and assisted regional

friends in providing for their own security and regional stability. As former Representative Lee H. Hamilton stated, "Our policy of containment, with all its limitations and frustrations, has achieved the vital interests of the United States."[25] U.S. air power, through enforcement of the Iraqi no-fly zones and air strikes during times of crises, has been the key element in that success.

NOTES

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3. Michael R. Gordon and Bernard E. Trainor, *The Generals' War* (Boston: Little, Brown, 1995), pp. 132–133.
4. John A. Gentry, "Military Force in an Age of National Cowardice," *Washington Quarterly* (autumn 1998), pp. 179–191.
5. Andrew J. Bacevich, "Discord Still: Clinton and the Military," *Washington Post*, January 3, 1999, p. C1.
6. Ernest Blazar, "Inside the Ring," *Washington Times*, November 11, 1998, p. 7.
7. One knowledgeable U.S. official said, "You wonder when this is going to stop working out so well." David A. Fulghum and Robert Wall, "Iraqi Air Defenses Broken but Dangerous," *Aviation Week and Space Technology*, February 15, 1999, pp. 30–31 (quoting Air Force General Richard Hawley, commander of U.S. Air Combat Command).
8. Peter Bacque, "Guard Fighters Won't be Sent to the Gulf," *Richmond Times-Dispatch*, January 15, 1999, p. 1.
9. Richard P. Hallion, *Storm over Iraq* (Washington: Smithsonian Institution Press, 1992), p. 298.
10. Dana Priest, "U.S. Commanders Unsure of How Long Iraq Will Need to Rebuild," *Washington Post*, December 22, 1998, p. 31 (quoting Gen. Anthony Zinni).
11. John Donnelly, "Navy Worries Tomahawks Running Low," *Defense Week*, October 13, 1998, p. 1.

12. David A. Fulghum, "USAF Eyes New Cruise Missile," *Aviation Week and Space Technology,* March 22, 1999, p. 84.
13. Jennifer Palmer, "Long-Range Plans Call for New Bomber," *Air Force Times,* March 22, 1999, p. 24.
14. Ibid. The joint standoff weapon (JSOW) uses the global positioning satellite (GPS) system to guide munitions to designated coordinates to a range of forty miles. The joint air-to-surface standoff missile (JASSM) also uses GPS guidance and is assessed to have a 150-mile range.
15. Fulghum and Wall, "Iraqi Air Forces Broken but Dangerous," p. 31.
16. Maj. Gen. Charles Wald, speech at the Center of Strategic and International Studies symposium, "Dueling Doctrines: The New American Way of War," Washington, June 25, 1998.
17. Brig. Gen. David Deptula, electronic correspondence with author, January 6, 1999. Brigadier General Deptula is commander of the Combined Task Force Operation Northern Watch, based at Incirlik Air Base, Turkey.
18. Alan O. Makovsky, "U.S. Policy and the Iraqi Opposition: A Cautious Start," *PolicyWatch* no. 372, Washington Institute for Near East Policy, March 8, 1999, pp. 1–2.
19. Patrick B. Pexton, "Dwindling Ranks," *Washington Post,* September 24, 1998, p. 25.
20. Alan Vick et al., *Preparing the U.S. Air Force for Military Operations Other Than War* (Washington: RAND, 1997), pp. 38–40.
21. Greg Alan Caires, "Needed to Counter 'SAMbushes': F-22," *Defense Week,* January 11, 1999, p. 2.
22. Gabriel Ben-Dor, "Arab Rationality and Deterrence," in *Deterrence in the Middle East,* ed. Aharon Klieman and Ariel Levite (Boulder, Colo.: Westview, 1993), pp. 87–97.
23. Arieh O'Sullivan, "Security Sources: Saddam Starting to Crack," *Jerusalem Post,* December 18, 1998, p. 1.
24. Earl H. Tilford Jr. of the U.S. Army War College said that "if you want to radically change the behavior of your opponent, it takes boots on the ground to do it." Schmemann, "Not Taking Losses is One Thing; Winning is Another."
25. Dana Priest, "U.S. Planes Attack Iraq Air Defenses," *Washington Post,* January 31, 1999, p. 23.

Appendix

TIMETABLE OF EVENTS

Gulf Region Events	*Other World Events*
1991	
February 28	
Desert Storm ceasefire	
April	
Northern No-Fly Zone declared	
1992	
June 1	
French Mirage F-1 crashes in northern Iraq	
August	
Southern No-Fly Zone declared	
December 27	*December*
Lt. Col. Gary North shoots down Iraqi MiG-25	U.S. troops enter Somalia
1993	
Jan. 13, 17, 18	*January*
Coalition air strikes in southern Iraq	President Bill Clinton inaugurated
	April 93
June 26	Operation Deny Flight begins over Bosnia
Cruise missile attacks on Baghdad after evidence of Iraqi plot to assassinate former U.S. president George Bush	*September 93*
	Pentagon releases "Bottom-Up Review"
	October 93
	Eighteen U.S. soldiers killed in Somalia
1994	
	March
April 14	U.S. troops depart Somalia
U.S. F-15s shoot down two Blackhawk helicopters in northern Iraq	

Gulf Region Events	Other World Events
1994	***(continued)***
	May
	North Korea nuclear crisis
	July
	North Korean leader Kim Il-Sung dies
	September
October	U.S. troops enter Haiti
Operation Vigilant Warrior—Iraqi troops move toward Kuwait, then pull back; southern "No-Drive" Zone established	
1995	
	June
	Capt. Scott O'Grady shot down over Bosnia
August	*August–September*
Defection of Iraqi Lt. Gen. Husayn Kamil to Jordan	Operation Deliberate Force takes place over Bosnia
1996	
June 24	
Khobar Towers bombed, killing 19 Americans	
September 3	
Operation Desert Strike—cruise missile attacks in southern Iraq following Iraqi attack on Irbil in support of KDP; southern No-Fly Zone expanded	
November 2, 4	*November*
Iraqi SAM engagements in southern No-Fly Zone	Clinton reelected for second term
1997	
November	
UNSCOM crisis; Russia brokers deal	
1998	
February	
UNSCOM crisis; UN secretary general Kofi Annan brokers deal	

Gulf Region Events	Other World Events
1998	***(continued)***
June 30 Iraqi SAM engagement, southern No-Fly Zone	*August* General Ryan announces USAF Air Expeditionary Force plan; U.S. cruise missiles strike Afghanistan and Sudan in opposition to Usama bin Ladin
	October Israelis and Palestinians sign Wye River Memorandum
November UNSCOM crisis; airstrikes canceled after Iraq backs down	*December* Clinton impeachment trial begins
December16–19 Operation Desert Fox—four consecutive nights of airstrikes on Baghdad and southern Iraq	
December 28 Iraqi SAM engagement, northern No-Fly Zone; "low-level war of attrition" begins. Limited airstrikes continue in No-Fly Zones under expanded rules of engagement	
1999	
	February King Hussein of Jordan dies
	March Operation Allied Force begins, with NATO airstrikes over Serbia, Kosovo

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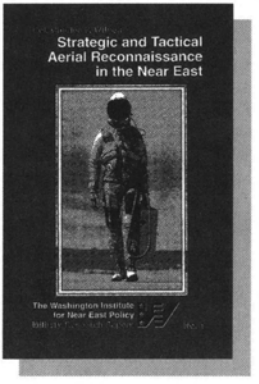

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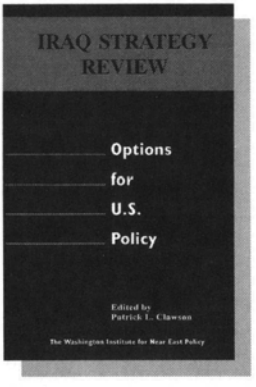

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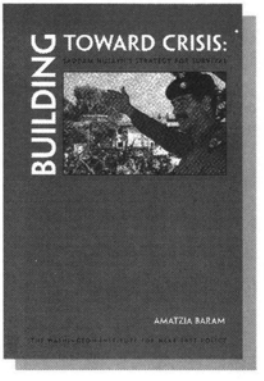

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The author concludes, "Without question, U.S. combat experiences in Iraq have altered the 'American way of war,' with air power becoming the instrument of choice in U.S. foreign policy." Given this reality, understanding why this has happened and what this means for future operations will be important for military and political decision makers alike.

Lt. Col. Paul K. White, a career fighter pilot, commanded an F-16CJ "Wild Weasel" unit that deployed to Dhahran Air Base in Saudi Arabia in 1996. He was the 1998-1999 Washington Institute National Defense Fellow.

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