

What Happened to the Iraqi Air Force?
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When Iran and Iraq ended a brutal 8-year war in 1988, the Iraqi Air Force had fought well. By 1991, it was one of the largest air forces in southwestern Asia, with well over 700 fixed-wing combat aircraft. Iraq had purchased new and very capable fighter aircraft, including MiG-29s from the Soviet Union and Mirage F-1s from France. The country had also improved its air bases, increasing the size and number of their runways and taxiways, and constructing hundreds of hardened aircraft shelters to protect aircraft on the ground. Yet twelve years later, when United States and coalition forces invaded Iraq in 2003, they faced no Iraqi Air Force opposition. Not one Iraqi warplane attacked the invaders as they proceeded toward Baghdad. Complete aerial supremacy contributed to the quick victory that toppled the regime of Saddam Hussein and placed the military forces of the United States and its allies in the enemy capital in less than one month. What happened to the Iraqi Air Force between 1991 and 2003? The answer to that question is the purpose of this paper.ⁱ

The most important factor was the war between Iraq and the United States and its coalition partners in 1991, sometimes called Operation DESERT STORM, and other times called the Gulf War. In 1990, Iraq invaded and quickly occupied Kuwait. The United States quickly pressured the United Nations into action, persuading the international community not only to condemn the action but eventually to take military steps to reverse it. Large numbers of United States military forces, and those of many other nations, deployed to Saudi Arabia, not only to protect that country from Iraqi invasion, which seemed a real possibility, but also to take action against Iraq in the event that Iraq refused to withdraw from Kuwait. The United Nations, in a series of resolutions, approved action against Iraq if Iraqi forces did not leave Kuwait by a

certain date. When that date passed, the United States led an international coalition to liberate Kuwait from Iraqi military occupation.ⁱⁱ

During the Gulf War, or Operation DESERT STORM, between January and March 1991, USAF pilots shot down 37 Iraqi airplanes, including 32 fixed-wing airplanes and 5 helicopters. The lost Iraqi airplanes included eight MiG-23s, six F-1s jets, five MiG-29s, four SU-22s, two SU-25s, two MiG-25s, two MiG-21s, one PC-9, one IL-76, one SU-7, and five helicopters, including one two MI-8s, one MI-24, and two that were not identified. Most of these aircraft had been manufactured in the Soviet Union or one of its satellites, but the six F-1 Mirage jets were French-made . All of the USAF victors flew F-15s except for two A-10 pilots, who each shot down a helicopter. In other words, F-15 pilots shot down 35 Iraq aircraft during the first quarter of 1991. Two of those pilots, riding together in an F-15E, shot down the MI-24 helicopter. Each of the other F-15 pilots flew in a single-seat F-15C. In December 1992 and January 1993, two USAF F-16 pilots each shot down two additional Iraqi aircraft, including a MiG-23 and a MiG-25. Between the beginning of 1991 and early 1993, USAF pilots shot down a total of 39 Iraqi airplanes.ⁱⁱⁱ

During the air combat over Iraq in 1991, the Iraqi Air Force was not able to shoot down a single USAF aircraft. USAF aircraft, however, shot down 37 Iraqi airplanes, a great many of them during the first few days of the conflict.^{iv} USAF and allied aircraft attacked Iraqi airfields, cratering the runways, but before long General Charles Horner, who commanded the air forces of the coalition, realized that the Iraqis had stopped using the runways. The reason was not so much that coalition aircraft had damaged the runways, but because the Iraqis were reluctant to engage in aerial combat in which they were likely to be shot down.^v

Horner authorized his air forces to strike the Iraqi aircraft on the ground, but many of these were located within hardened aircraft shelters, armored with reinforced concrete, which Saddam Hussein hoped would proved to be virtually impervious to air attack. He was wrong. F-111s and F-117s armed with laser-guided bombs could not only destroy the shelters one by one, but also the aircraft inside them. Among the weapons used were GBU-10s, GBU-24s, and GBU-27s, all of which weighed some 2,000 pounds each. During the first week, almost half of the F-111 sorties and ten percent of the F-117 sorties were directed against Iraqi airfields, of which there were nearly 70. In the second week, as the targets shifted from runways to shelters, more than sixty percent of the F-111 strikes and 26 percent of the F-117 strikes were against Iraqi airfields. The raids continued into the third week, when 41 percent of the F-111 missions and 18 percent of the F-117 air strikes were directed against Iraqi air bases. There were between 500 and 600 hardened aircraft shelters in Iraq. An estimated 63 percent of these were either destroyed or damaged by coalition air strikes during Operation Desert Storm. By the end of the Gulf War in the spring of 1991, allied aircraft had destroyed an estimated 141 Iraqi aircraft in their shelters.^{vi}

Instead of protecting the aircraft, the shelters actually attracted coalition air strikes, making the aircraft more vulnerable in them. The Iraqis realized that the shelters themselves were easier targets to hit than individual aircraft dispersed on fields, and they began to move their airplanes away from the shelters. While the aircraft were more difficult to find than those in the air or those in hardened shelters, they were still extremely vulnerable to the air strikes of the United States and its coalition partners. The coalition destroyed some 113 Iraqi aircraft in the open by the end of Operation DESERT STORM.^{vii}

Iraqi airfields received more Desert Storm air strikes than any other target set except the Iraqi field army in Kuwait. During the operation, the coalition flew 2,990 air strikes against Iraqi air fields. Realizing that their aircraft were systematically being eliminated both in the air and on the ground, the Iraqis began to seek ways to save them by flying them to a neighboring country. Jordan was the logical choice, because of formerly friendly relations, but Jordan was too far away, and Iraqi pilots realized that flights from Iraq to Jordan would be detected and intercepted, with more aerial victories for the Americans and their allies. Iran was a possibility, but Iran had been the arch-enemy of Iraq less than four years earlier. Flying Iraqi aircraft to Iran for their protection required some diplomacy. The Iraqis were able to persuade the Iranians to allow Iraqi combat aircraft to fly to Iran, but the Iranians made no guarantee that they would ever be given back. In fact, by the end of Operation DESERT STORM, 121 Iraqi aircraft made it safely to Iran, but they never returned. The Iranians kept the aircraft as a sort of reparations payment for the 8-year conflict of the previous decade.^{viii}

During Operation DESERT STORM, the air forces of the United States and its allies destroyed or otherwise eliminated the majority of the fixed-wing aircraft of the Iraqi Air Force, shooting down 32 in the air and 254 on the ground, 113 of them in the open, and 141 in shelters. In other words, the United States and its allies destroyed 286 of the 729 fixed-wing combat aircraft of the Iraqi Air Force. Iraqi pilots flew an additional 121 fixed-wing combat aircraft to Iran, which regarded them as reparation payments for the previous war and which never returned them. In the first three months of 1991, an estimated 407 Iraqi aircraft were either destroyed or permanently lost. This left the Iraqi Air Force with only 322 fixed-wing combat aircraft, less than half of the 729 it had at the beginning of 1991.^{ix}

USAF and coalition aerial victories and air strikes removed the threat of the Iraqi Air Force early in Operation DESERT STORM, resulting in complete air supremacy in the theater, which General Norman Schwarzkopf declared on 27 January 1991. This allowed coalition ground forces to operate without the threat of any enemy aircraft attacks on them. It also allowed relatively vulnerable aircraft, such as tankers, transports, and intelligence, surveillance, and reconnaissance aircraft, to fly into the theater without fear of being shot down by enemy airplanes.^x

During the decade of the 1990s, the United States and its coalition partners kept the pressure on Iraq, not only to discourage any renewed invasion of Kuwait, but also to protect Iraqi minorities who rose up in rebellion against Saddam Hussein during the spring of 1991. To protect the Kurdish population of northern Iraq, and to deliver humanitarian supplies to those who fled their homes toward Turkey, the United States launched Operation Provide Comfort (which eventually evolved into Operation Northern Watch). The no-fly zone over northern Iraq ostensibly prevented any remaining Iraqi warplanes from crossing into the protected zone, but it also defined an area of northern Iraq where the people received some measure of United States protection from the power of Saddam Hussein. In the southern part of Iraq, near Kuwait and Iran (both of which the Iraqis invaded not too many years earlier), Shiite residents also rose up in rebellion against Saddam Hussein as the first Gulf War came to a close in the spring of 1991. To prevent Iraqi warplanes from attacking them, the United States established another no-fly zone in southern Iraq. The Operation to enforce this zone was called Operation Southern Watch.^{xi}

Periodically Saddam Hussein challenged the United States in the no-fly zones, but rarely did he do so with Iraqi Air Force warplanes. He more often used surface to air missiles in harassing attacks. The United States responded to such “provocations” by attacking Iraqi air

defenses, not only to punish Saddam Hussein for challenging the no-fly zone operations, but also to destroy resources that could be used against American combat aircraft enforcing the operations. As a result, many of the ground stations on which the Iraqi Air Force depended for its operations were destroyed and not available to them.

The no-fly zones in the northern and southern parts of Iraq had another debilitating effect on the Iraqi Air Force. They restricted training flights to the region between the no-fly zones. Iraqi pilots could fly only in certain latitudes, and they could not fly over northern or southern regions of Iraq that they would be expected to enter for future combat operations.

Iraqi training flights were restricted also by another factor. The United Nations economic sanctions imposed on Iraq after its invasion of Kuwait in 1990 were not lifted after the 1991 war, primarily because Iraq continued to resist United Nations efforts to insure that Saddam Hussein's facilities for producing nuclear, biological, and chemical weapons of mass destruction were no longer functioning. The economic sanctions prevented Iraq from importing new aircraft and aircraft parts. For example, in September 1995, the United Nations Security Council voted to extend sanctions against Iraq that had been in place for five years. As a result, the Iraqi Air Force inventory continued to age. As parts wore out, they were not as easy to replace as they had been before 1990. Even fighter aircraft that Iraq had sent to Yugoslavia during the 1980s for refurbishing never returned during the 1990s.^{xiii}

Contributing to the failure of the Iraqi Air Force to recover its pre-1991 strength and vitality during the following decade was Saddam Hussein's distrust of senior military officers who might pose a threat to his leadership. Fearing attempted coups, the Iraqi dictator periodically purged his military leadership, including some of the high-ranking officers in the

Iraqi Air Force. Saddam Hussein wanted Iraq's military to be led by those unquestionably loyal to him. As a result, the Iraqi Air Force lacked the leadership it needed for a significant revival.^{xiii}

In 1996, Iraqi troops entered the northern no-fly zone and seized the Kurdish city of Irbil. In response the United States launched Operation Desert Strike on September 2 and 3. During that operation, USAF B-52s launched 13 cruise missiles against military targets in Iraq. Those targets included Iraqi air defense and radar installations. Another result of the Iraqi offensive in the northern no-fly zone was the extension of the southern no-fly zone northward from 32 degrees North to 33 degrees North latitude. This further restricted the space in which the Iraqi Air Force could operate or train. Partly as a result of Saddam Hussein's military offensive against the Kurds in northern Iraq, the United States replaced Operation Provide Comfort over northern Iraq with Operation Northern Watch at the beginning of 1997.^{xiv}

Saddam Hussein's refusal to allow United Nations weapons inspectors to continue their work in Iraq resulted in another set of air attacks by the United States and its allies on Iraq in December 1998. During what was called Operation Desert Fox, the United States launched 415 cruise missiles against military targets in Iraq. American and coalition warplanes also dropped 600 bombs. A total of 97 Iraqi targets were destroyed or heavily damaged by aircraft or missile attacks. As part of the operation, American and British warplanes bombed Tallil Air Base in Iraq and destroyed several Iraqi unmanned aerial vehicles that had been converted from trainers, presumably to deliver chemical or biological weapons.^{xv}

A combination of factors resulted in the weakening of the already largely destroyed Iraqi Air Force between the end of the Gulf War in 1991 and the beginning of Operation Iraqi Freedom in 2003. When Operation Desert Storm ended, the Iraqi Air Force possessed an estimated 322 fixed-wing combat aircraft, less than half of the 729 it had at the beginning of

1991. In 2002, the Iraqi Air Force inventory totaled approximately 267 aircraft, including 135 combat aircraft and 132 trainers. Of the 135 combat aircraft in 2002, 124 were fighters, 9 were transports, and 2 were combat helicopters. Presumably the Iraqis cannibalized some of their combat aircraft between 1991 and 2002 in order to keep their fleet operational. There is also some evidence that the Iraqis converted some of their trainers into unmanned aerial vehicles, not for reconnaissance, but for the delivery of weapons.^{xvi}

When the United States invaded Iraq in 2003, the Iraqi Air Force did not show up. It did not generate a single sortie. Allied air and ground forces operated without any aerial opposition. The absence of Iraqi Air Force opposition allowed the United States Air Force to use aircraft more vulnerable than fighters and bombers, such as helicopters, transports, and drones, with less fear of having them shot down over enemy territory. Of course, the failure of Iraq to launch any aircraft to oppose the invasion was partly deliberate. The Iraqi leadership realized that challenging the United States and coalition air forces would be futile, in light of the 1991 campaign, especially since the Iraqi Air Force was only a shadow of what it had been in 1991. But there were other factors. American and coalition air attacks destroyed the Iraqi command and control system on which the Iraqi Air Force depended so much, including many radar stations that might have furnished a foundation for an effective air resistance. Following the example of the Serbs in 1999 during the war over Kosovo, the Iraqis sometimes saved surface to air missile batteries by not activating their radar, which would have identified them as targets for United States fighters armed with HARM missiles. American and British aircraft also cratered runways of Iraqi air bases just to make sure that they would not be used to facilitate interceptor launchings.^{xvii}

Table of Iraqi Air Force Aircraft in 2002 (Source: JANE'S WORLD AIR FORCES, Issue 16 (Clousdon, UK: Jane's Information Group, 2002), pp. 196-197)

Aircraft designation	NATO nickname	type of aircraft	number
MiG-23	Flogger	fighter interceptor	30
MiG-25	Foxbat	fighter interceptor	5
MiG-29	Fulcrum	fighter interceptor	4
F-1	Mirage	air defense/attack	20
MiG-21	Fishbed	air defense/attack	30
SU-22	Fitter	attack	20
SU-24	Fencer	attack	5
SU-25	Frogfoot	attack	10
Bell 21		combat helicopter	2
AN-24		transport	2
AN-26		transport	6
IL-76		transport	1
		trainer	132

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ⁱ Williamson Murray and Maj. Gen. Robert H. Scales, Jr., *The Iraq War: A Military History* (Cambridge, MA: Belknap Press, 2003), pp. 163, 180-181.

ⁱⁱ Richard P. Hallion, *Storm Over Iraq* (Washington, DC: Smithsonian Institution Press, 1992).

ⁱⁱⁱ CCAF Special Order GA-1, 1991; USCENTAF Special Order GA-22 dated 15 June 1991; CCAF Special Order GB-386, 1993; CCAF Special Order GA-32, 1995; CCAF Special Order GA-33, 1995; Air Force Historical Research Agency aerial victory credits home page.

^{iv} CCAF Special Order GA-1, 1991; USCENTAF Special Order GA-22 dated 15 June 1991; CCAF Special Order GB-386, 1993; CCAF Special Order GA-32, 1995; CCAF Special Order GA-33, 1995; Air Force Historical Research Agency aerial victory credits home page.

^v Gulf War Air Power Survey (S) vol. II, part I, Eliot A. Cohen, editor; Barry D. Watts and Williamson Murray, principal authors. Information used is (U), p. 202.

^{vi} Gulf War Air Power Survey (S) vol II, part I Eliot A. Cohen, editor; Barry D. Watts and Williamson Murray, principal authors. Information used is (U), pp. 203-204, 209-211; Gulf War Air Power Survey (S), vol. II, part II, Eliot A. Cohen, editor; Barry D. Watts and Thomas A. Kearney, principal authors. Information used is (U), p. 156, Table 10; Tom Clancy and Gen. Chuck Horner, *Every Man a Tiger* (New York: G. P. Putnam's Sons, 1999), p. 358.

^{vii} Gulf War Air Power Survey (S), vol. II, part II, Eliot A. Cohen, editor; Barry D. Watts and Thomas A. Kearney, principal authors. Information used is (U), pp. 145, 147, 150-154, 156, Table 10.

^{viii} Gulf War Air Power Survey (S), vol. II, part II, Eliot A. Cohen, editor; Barry D. Watts and Thomas A. Kearney, principal authors. Information used is (U), pp 147-148, 156, Table 10; Tom Clancy and Gen. Chuck Horner, *Every Man a Tiger* (New York: G. P. Putnam's Sons, 1999), pp. 358 and 478.

^{ix} Gulf War Air Power Survey (S) vol. II, part II, Eliot A. Cohen, editor, Barry D. Watts and Thomas A. Kearney, principal authors. Information used is (U), p. 156, Table 10.

^x Gulf War Air Power Survey (S), vol. II, part II, Eliot A. Cohen, editor; Barry D. Watts and Thomas A. Kearney, principal authors. Information used is (U), p. 158.

^{xi} A. Timothy Warnock, editor, *Short of War: Major USAF Contingency Operations* (Washington, DC: Air Force History and Museums Program, 2000), pp. 179-195.

^{xii} Henry E. Mattox, *A Chronology of United States-Iraqi Relations, 1920-2006* (Jefferson, NC: McFarland and Company, Inc., 2008).

^{xiii} R. Jeffrey Smith, "Internal Dissent in Military Said to Precede Iraqi Purge: Saddam Reportedly Climbs Foes Plotted to Kill Him," *The Washington Post*, July 10, 1992.

^{xiv} Henry E. Mattox, *A Chronology of United States-Iraqi Relations, 1920-2006* (Jefferson, NC: McFarland and Company, Inc., 2008), p. 101-104.

^{xv} Paul Jackson and Lindsay Peacock, *Jane's World Air Forces*, Issue Sixteen (Coulson, UK: Jane's Information Group, 2002), pp. 196-197; Henry E. Mattox, *A Chronology of United States-Iraqi Relations, 1920-2006* (Jefferson, NC: McFarland and Company, Inc., 2008), p. 111.

^{xvi} Paul Jackson and Lindsay Peacock, *Jane's World Air Forces*, Issue Sixteen (Coulson, UK: Jane's Information Group, 2002), pp. 196-197.

^{xvii} Williamson Murray and Robert H. Scales, Jr., *The Iraqi War* (Cambridge, MA: Belknap Press of Harvard University, 2003), p. 163, 170, 171, 180.