

policy BRIEF

The Osiraq Myth and the Track Record of Preventive Military Attacks

Dan Reiter

SUMMARY:

The 1981 Israeli aerial strike on Iraqi nuclear facilities at Osiraq is frequently cited as a successful use of preventive military force, and may be used to justify similar attacks in the future. However, closer examination of the Osiraq attack reveals that it did not substantially delay the Iraqi nuclear program and may have even hastened it. Attempts to replicate the “success” at Osiraq are likely to do even worse, as proliferating states are now routinely dispersing and concealing their nuclear, biological, and chemical programs to decrease their vulnerability to air strikes. Given the poor track record of preventive attacks in controlling the spread of nuclear, biological, and chemical weapons, American interests will be best served in the future by embracing other tools of counterproliferation.

The 1981 Israeli preventive attack on the Iraqi nuclear facilities at Osiraq has often been credited as having substantially delayed the advance of the Iraqi nuclear program. Indeed, heavy damage inflicted on a variety of installations, including the Tammuz reactor, is often cited as the reason Iraq did not possess nuclear weapons at the outset of the 1991 Persian Gulf War. In 1991, then Secretary of Defense Richard Cheney personally thanked the Israeli commander for having made his job during Desert Storm “easier.”

Implications for the 2002 National Security Strategy

The attack has sharp resonance in the 2002 *National Security Strategy of the United States of America* (NSS), which declares that the United States may launch military attacks to prevent threatening states from acquiring nuclear, biological, or chemical (NBC) weapons. The NBC preventive motivation for the 2003 invasion of Iraq seems much more tenuous now than it did in the run-up to the war. As a series of studies including the Duelfer report make clear, Iraq did not have nuclear, biological, or chemical weapons or production facilities when the war began.

Nevertheless, the 1981 Osiraq attack is still held up as the prototypical example of an NBC preventive attack, one that significantly delayed a very real nuclear program. The false vision of “mission accomplished” at Osiraq

The false vision of “mission accomplished” at Osiraq may motivate this or future administrations to launch similar preventive strikes against other nations thought to be actively pursuing illicit weapons, possibly including Iran or North Korea.

ABOUT THE RIDGWAY CENTER

The Ridgway Center at the University of Pittsburgh is dedicated to producing original and impartial analysis that informs policymakers who must confront diverse challenges to state and human security. Center programs address a range of security concerns—from the spread of terrorism and technologies of mass destruction to genocide, failed states, and the abuse of human rights in repressive regimes.

The Ridgway Center's research program analyzes the complex dynamics of the 21st century global security environment.

It concentrates on rapidly evolving and emerging threats to national and international security. The Ridgway Center's core mission is to identify progressive and practical ways to manage the demands of global force projection and intervention, to combat illicit trade while fostering greater economic cooperation, and to encourage openness and equity in societies around the world.

The Ridgway Center supports a number of multidisciplinary research efforts, each of which draws on and integrates the expertise of scholars, policy makers, entrepreneurs, and the media. It houses the Ford Institute for Human Security, one of several diverse yet interrelated programs administered by the center.

The Ridgway Center is an affiliate of the Graduate School of Public and International Affairs and the University Center for International Studies at the University of Pittsburgh.

The research featured in this policy brief is one of several outcomes of the Ridgway Working Group on Preemptive and Preventive Military Intervention (chaired by Gordon Mitchell).

William W. Keller, Director

Contact the Ridgway Center

Phone: 412-624-7884

E-mail: rciss@pitt.edu

Web site: www.ridgway.pitt.edu

may motivate this or future administrations to launch similar preventive strikes against other nations thought to be actively pursuing illicit weapons, possibly including Iran or North Korea. In September 2004, President George W. Bush seemed to leave open the possibility of preventive military action against Iranian nuclear facilities when he declared, "our position is that [Iran] won't have a nuclear weapon."

The Myth of "Success" at Osiraq

Precisely because it may be used to motivate future attacks, the Osiraq experience invites further scrutiny. Indeed, the "success" of the attack on Osiraq rests on two myths: (1) the attacks substantially delayed the Iraqi acquisition of nuclear weapons, and (2) any "achievements" of the Osiraq experience can be replicated in future operations. Evidence opposing the first claim is drawn primarily from the accounts of three Iraqi physicists who worked in Saddam Hussein's weapons program, and from an American physicist who visited the bombed site in 1982. It indicates that any delays imposed on the program by the attack have been exaggerated. At the time of the attack, Iraq planned to produce plutonium (rather than enrich uranium) as a route to building a nuclear weapon. However, there were two important impediments to Iraqi plutonium production. First, the French-provided reactor was subject to inspection, by both the International Atomic Energy Agency (IAEA) and French technicians. The IAEA installed cameras for constant surveillance, and its inspectors visited biweekly. French inspectors, on site continuously, would have filed daily reports. Notably, the French technicians likely opposed Iraqi acquisition of nuclear weapons; there is indirect evidence that they knew beforehand of the Israeli air strike, and they may have even assisted the strike by providing intelligence to the Israelis. The French technicians, then, would have been highly motivated to report any illegal weapons activity.

Significantly, plutonium production is extremely difficult to conceal, both because the procedure requires shutting down the reactor to insert and withdraw the uranium rods and because the transportation devices that move the plutonium-producing uranium targets cannot be hidden. These technical requirements would make eluding IAEA inspectors and French technicians extremely difficult. Moreover, the Iraqis depended on the French for reactor fuel, so discovery of secret plutonium production would likely have dried up this source and shut the reactor down. Former Iraqi nuclear physicist Imad Khadduri agreed with this assessment, noting, "The possibility of such an undertaking by Iraq is delusional. The tight refueling schedule for such an endeavor, which is required to prevent 'poisonous' plutonium 238 from developing, would be impossible to hide from the French scientists, who would have been collaborating with us for years, and the IAEA inspectors. Had we even diabolically thought of kicking both out and running the reactors ourselves for such a purpose, the limited fresh fuel that was allowed for us would have aborted any such attempt at the outset."

Second, inspections aside, there were major physical barriers. The reactor itself was a light-water moderated reactor, meaning that it was not designed for efficient plutonium production. Furthermore, the French had originally promised to supply 80 percent enriched fuel, but in 1980 they unilaterally renegotiated the terms, supplying instead 18 percent "caramel" fuel to block the production of weapons-grade plutonium. Khadduri noted that, "Neither would the unique design of the reactor core for the 'caramel' fuel allow for fuel designs specific for plutonium production." In the opinion of an American physicist who inspected the site, under the best conditions the reactor might have given them a one-year advantage in a 10-year program to make atomic bombs.

It may be that even a marginal delay in the Iraqi nuclear program might have been politically significant, given some reports that at the time the Gulf War broke out, Iraq was as little as one year away from acquiring a nuclear weapon, though the October 2004 Duelfer report notes several remaining obstacles to Iraqi weaponization in 1991. Paradoxically, the Osiraq attack may have actually stimulated rather than inhibited the Iraqi nuclear program. The attack itself may have persuaded Saddam to accelerate Iraqi efforts to become a nuclear weapons power. While we can only speculate on this point, we do know that Saddam publicly portrayed the attack as having successfully destroyed

ABOUT THE AUTHOR

*Dan Reiter is a professor of political science at Emory University. He is a former fellow at the John M. Olin Institute for Strategic Studies at Harvard University, and is the author of numerous articles and books, including most recently the coauthored volume **Democracies at War**. He has published on an array of foreign policy and security topics, including preemptive war, the use of airpower as a coercive instrument, the causes and consequences of military strategy choice, the relationship between democracy and the causes and outcomes of wars.*

the Iraqi nuclear program. Following Osiraq, the entire Iraqi nuclear effort moved underground, as Saddam simultaneously ordered a secret weapons program that focused on uranium separation as a path to building a bomb. Further, Saddam may have increased his support for the nuclear program after the Osiraq attack, rehabilitating an important Iraqi nuclear physicist from prison and by one account increasing the manpower and resources devoted to the nuclear program by more than 15-fold.

In short, before the Osiraq attack both the French and the IAEA opposed the weaponization of Iraq's nuclear research program, and had a number of instruments to constrain weaponization, including control over reactor fuel supply and multiple and continuous inspections. After the Osiraq attack, the program became secret, Saddam's personal and material commitment to the program grew, and the non-proliferation tools available to the international community became ineffective.

The Dubious History of Preventive Military Attacks

Exaggerating the "success" at Osiraq is all the more misleading because the record shows that attempts to degrade nuclear, biological, and chemical programs with preventive attacks generally do fail. In World War II, for example, three commando raids and a B-17 bombing mission were only partly successful in degrading the German nuclear program; it took the D-Day invasion to eliminate it completely. Iran and Iraq unsuccessfully attacked each other's nuclear facilities in the 1980s. The American attacks against alleged al-Qaeda chemical assets in Sudan in 1998 probably did little damage to that organization's capabilities.

Of greater concern is the failure of repeated US-led coalition air strikes in 1991 to destroy or even substantially degrade Iraq's NBC facilities. Unlike the handful of Israeli aircraft launching a single attack in 1981, coalition forces in 1991 launched some 970 strikes against NBC targets. In evaluating these attacks, the General Accounting Office reported that, "The goal of eliminating Iraq's NBC capabilities was not even approximated by the air campaign; very substantial NBC capabilities were left untouched. An intelligence failure to identify NBC targets meant that the air campaign hit only a tiny fraction of the nuclear targets and left intact vast chemical and biological weapons stores." Both the anti-NBC strikes in 1993 and the 1,000 or so air and missile strikes in Operation Desert Fox of 1998 were similarly ineffective in their efforts to damage Iraqi programs.

Indeed, the 1990s experiences cast even more doubt that any "success" at Osiraq can be replicated. The central lesson for Iraq and for all nations is the importance of minimizing the vulnerability of NBC programs to aerial attack. This can be accomplished through dispersion and deception, under the assumption that attackers cannot destroy what cannot be found. North Korea offers a case in point. One reason the U.S. Air Force opposed strikes against the North Korean nuclear program in 1993 was concern that intelligence locating North Korean nuclear facilities might not be accurate and complete. These difficulties have persisted. In 2003, a former Pentagon official commented that, "Taking out the one facility at Yongbyon with cruise missiles does not shut down the North Korean nuclear program—it's not like Osiraq in Iraq. They may have one to two weapons and a clandestine highly enriched uranium program." Similarly, Iran has likely concealed and dispersed enough of its nuclear facilities such that a preventive air strike would at best marginally delay its nuclear program, especially given Iran's domestic uranium supplies.

The benefits of Osiraq have been greatly exaggerated, and the attack itself may have even been counterproductive, accelerating rather than delaying the Iraqi weapons program.

The Dangers of Future Preventive Strikes

Importantly, future attacks contemplated against North Korea or Iran would be far more costly than the Osiraq attack was to Israel. American military officials cannot discount the possibility of a North Korean military reaction to an American air strike on their nuclear facilities. General Gary Luck bluntly declared, "If we pull an Osirak [on North Korea], they will be coming south." North Korea has a range of retaliatory options from launching artillery barrages against Seoul to attacking South Korean nuclear power plants.

The Pentagon estimates that a (non-nuclear) war in Korea would impose 500,000 casualties in the first 90 days, ultimately inflicting up to a million military and civilian casualties, including 100,000 American dead.

The Iranian reaction could also be very damaging. A study by the Monterey Institute of International Studies describes a number of possible Iranian responses to an air strike against their nuclear facilities. Iranian ballistic missiles could reach American bases in the region as well as Israeli cities. Iran could take a much more aggressive and anti-American role in Iraq, encouraging and supporting Iraqi Shiite resistance to American forces and perhaps more generally opposing the formation of a stable and unified democracy in Iraq.

The implications for the preemptive/preventive warfare doctrine of the NSS are sobering. The current experience in Iraq has shed an uncomfortable light on the costs, dangers, and difficulties of larger wars aimed at changing the regime in an NBC-threatening state. However, the alleged "success" at Osiraq may tempt an American administration into launching a more limited preventive air or missile strike on a state's NBC facilities, hoping for great success at low cost. Such seductions should be resisted, however. The benefits of Osiraq have been greatly exaggerated, and the attack itself may have even been counterproductive, accelerating rather than delaying the Iraqi weapons program. Further, any alleged successes at Osiraq are unlikely to be repeated, as potential target states like Iran and North Korea have learned the lessons of Osiraq. They have dispersed and hidden their NBC programs, making any such future attacks much more difficult. The United States and its friends and allies are more likely to curtail the threats of proliferation by relying on more historically successful strategies, such as economic sanctions, deterrence, international institutions, inspection regimes, and cooperative yet assertive diplomacy.



The University of Pittsburgh is an affirmative action, equal opportunity institution.
Published in cooperation with the Department of University Marketing Communications. UMC4949-1004

University of Pittsburgh
Matthew B. Ridgway Center
for International Security Studies
3930 Wesley Postwar Hall
Pittsburgh, PA 15260

