

Battle damage in
Baghdad, April 2003



Forum

Airpower and Psychological Denial

55th Signal Company Combat Camera (Kevin P. Bell)

By WESLEY P. HALLMAN

Qusay Hussein ordered three Republican Guard divisions to maneuver into position to oppose the U.S. advance to Baghdad. But the divisions were essentially destroyed by air-strikes when they were still about 30 miles south of the capital. This affected the morale of the troops. The Iraqi will to fight was broken outside Baghdad.

—Iraqi General Staff Colonel Ghassan¹

According to RAND researcher Stephen Hosmer, the promise of airpower resides in “air operations against enemy deployed forces, the demoralization of which might cause enemy cohesion to disintegrate and battlefield resistance to collapse”²—a concept here termed *psychological denial*. While airpower enthusiasts have advocated psychological effects since

the days of Giulio Douhet, these effects have usually been seen in terms of targeting the public’s will and then the leadership’s ability to continue the fight. Airpower could thus enable strategists to leapfrog fielded forces and strike at the heart of the enemy. But that did not happen in Operation *Iraqi Freedom*. Carl Conetta states that the operation was the first example of airpower used to effect psychological denial.³ Is it true *Iraqi Freedom* was a unique use of joint and combined airpower, and did this strategy work?

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More importantly, are the results idiosyncratic or do they point the way forward in airpower employment? If they are case-specific, the strategic implications are few. If, as this article argues, they are not, *Iraqi Freedom* reinforces the move to redefine *strategic attack* and suggests future investments in more capabilities such as an enhanced joint surveillance and target attack radar system (JSTARS), Global Hawk, and Blue Force Tracking to improve airpower's ability to find and strike fielded forces.

Damaging Fielded Forces

The central tenet of Hosmer's theory is that while traditional strategic attacks "can provide important coercive leverage on an enemy, such attacks themselves are unlikely to secure war aims." Instead, he advocates dislocating fielded forces. How this mechanism works to cause enemy capitulation or concessions is based on coercion theory. Hosmer's concept is similar to Robert Pape's assertion regarding a denial strategy: "The coercer must exploit the particular vulnerabilities of the opponent's specific strategy."⁴ In the case Hosmer seeks to explain, conventional conflict, Pape

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notes the enemy's strategy is victory "by means of massive, heavily armed forces that fight intense, large-scale battles," and he advocates the destruction of those heavy forces through relentless air attack.

Hosmer, however, promotes attacking fielded forces not only to damage them physically but to destroy them psychologically. Attacking the will of these forces obtains the necessary and sufficient coercive condition of "threatening to defeat an adversary's strategy," leaving the enemy nation prostrate to a total military victory or willing to accede to limited objectives. Hosmer states that airpower can do this in two ways: "(1) Causing enemy troops to desert, defect, sur-



Mission planning cell briefing, Operation Iraqi Freedom

30th Space Communications Squadron (Janice H. Cannon)

render, or flee the battlefield and (2) dissuading troops from manning their weapons and otherwise carrying out their military duties." Key to this conception is a focus on linchpin units upon which enemy strategy depends. Finally, Hosmer proposes a six-factor concept of operations for a psychological denial strategy: constant attacks, supply denial, area bombing for surprise and shock, precision bombing to condition the enemy troops to desert their equipment, integrated psychological operations strategies, and exploitative ground operations. While *Iraqi Freedom* did not exactly mirror this concept of operations, it was remarkable how close it came.

Iraqi Freedom was unique in American military operations in ways that support psychological denial. It was the first operation in which commanders did not implement a long or medium-term independent air campaign on the enemy capital preceding major ground operations. Coalition forces did take advantage of ongoing Operation *Southern Watch* and *Northern Watch* missions to target selected command and con-

trol and integrated air defense systems, with some tracing the beginning of the air campaign to January when the coalition stepped up attacks within the no-fly zones. While they were a precursor to *Iraqi Freedom*, these operations did not rise to the level of the massed attacks against wide-ranging strategic, interdiction, and counterforce targets that preceded ground operations in the first Gulf War.

As Hosmer states, a strategist must "plan on multiple pressures to secure war aims." By kicking off the air operations nearly simultaneously with the ground invasion, coalition forces immediately presented the Iraqi forces with a strategic dilemma that at once stressed their will. They could either disperse and dig in to avoid the pounding punishment of coalition airpower and leave themselves open to the invasion force, or they could mass to meet the invading forces and expose themselves to the air threat. With no effective means to counter coalition airpower, they had no way out of the dilemma. That helped establish the conditions that consistently produced large-scale surrender and desertion. Not only did the coalition employ sustained airpower to dislocate the enemy forces, but the concurrent invasion allowed the ground forces to "exploit

collapsing morale” in a timely manner, thus maximizing airpower effects both physically and psychologically. Stated Colonel William Grimsley, USA, commander, 1st Brigade, “We never really found any cohesive unit of any brigade of any Republican Guard division.”⁵ Though this simultaneity from the start was unique, the targeting plan was exceptional as well.

An argument has long raged among theorists about what airpower should target. While Douhet advocated bombing cities to break morale, others,

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such as the proponents of *Blitzkrieg*, argued for targeting enemy fielded forces to support ground action and break the opposing army’s capabilities to resist. In all wars that have employed airpower, the Air Force has targeted both the *strategic* targets, which include leadership, command and control nodes, and transportation hubs, and the *tactical* targets of fielded forces. In *Iraqi Freedom*, however, coalition air forces employed a higher share of their sorties and munitions against fielded forces in a strategic manner meant to decisively destroy those forces and effect Iraq’s defeat.

A Tale of Two Conflicts

Because of their similarities, it is instructive to compare operations in the two Gulf wars. While the majority of strikes during *Desert Storm* did hit Iraq’s fielded forces, the order of the strikes and the manner in which they occurred belie not only a changed targeting plan but also a changed strategic framework. One need only compare the objectives of the coalition forces commander (CFC) and the coalition forces air component commander (CFACC). While in both Gulf wars the number-one CFC focus was the Iraqi forces, the importance assigned to fielded forces on the CFACC list versus traditional strategic attack targets is striking. Given the CFC objectives

in *Desert Storm*, Lieutenant General Charles Horner, USAF, CFACC, placed direct attacks on fielded forces, specifically the Republican Guard divisions, as number five of five objectives with a stated goal of “destroying the Republican Guard forces.”⁶ In contrast, Lieutenant General Michael Moseley, USAF, CFACC during *Iraqi Freedom*, placed such attacks as number 2 on his list of 11 “strategy-to-task mission areas.”⁷

The differences do not end with priority; they extend into the intended effects of the attacks. In *Desert Storm*, air planners hoped coalition air attacks would make a ground offensive unnecessary by focusing on targets deep inside Iraq that were linked to leadership, forcing Saddam Hussein to capitulate. In contrast, the *Iraqi Freedom* attacks were meant to compel a collapse of the Iraqi forces to enable and complement the ground invasion and eventual occupation of Iraq. One can glean these intentions from the concept of operations. *Desert Storm* was a phased plan that began, according to a General Accounting Office evaluation, with “the strategic air campaign” focusing in order of importance on “strategic air defenses, aircraft/airfields, strategic chemical, biological, and nuclear capability, leadership targets, command and control systems, Republican Guard

forces, telecommunications facilities, and key elements of the national infrastructure.”⁸ *Iraqi Freedom*, however, did not have an independent strategic air phase; instead, air operations were conducted from the outset to “[help] the [coalition forces land component commander] to achieve defeat or compel capitulation of Republican Guard Forces and Iraqi Army Forces” from the start. This difference in objectives led to differences in the allocation of air forces to the various target sets. While Iraqi forces received an initial allocation of 7 percent of available forces during *Desert Storm*, they received a 51 percent apportionment in *Iraqi Freedom*. However, apportionment matters little without the other piece of the puzzle, force employment.

Key among the differences in airpower employment against land forces are the tempo and intensity of the attacks. As suggested above, strikes were stretched over several weeks during *Desert Storm*, with slowly increasing intensity that allowed Iraqi forces to adapt and habituate to the strikes. In fact, during the first 2 weeks of the operation, ground attacks were significantly below the overall average for a war whose intensity did not peak until 4 weeks into the campaign. When the attacks did come in force, Army commanders pressed for strikes against the



F-16CJs armed for combat sortie over Iraq

U.S. Air Force (Aaron D. Allmon II)

Marines capturing enemy forces on the road to Baghdad



U.S. Marine Corps (Andrew P. Roudis)

regular forces lined up facing friendly units rather than the Republican Guard arrayed in the rear. Attacks in *Iraqi Freedom* were immediate and intense and could not contrast more with *Desert Storm*:

*Because the Republican Guard divisions did not capitulate, coalition airpower hammered them from the beginning of the air war, first with precision strikes against a small number of key targets and later with crushing blows from B-52 heavy bombers dropping both unguided iron bombs and precision weapons. That was a shift from Desert Storm, when those units came in for heavy bombing only after other target sets had been worked over.*⁹

While fewer munitions were used per enemy soldier in *Iraqi Freedom* than in *Desert Storm*, they were delivered in half the time. *Iraqi Freedom* also included a sharp increase in the portion of precision-guided munitions (PGMs) in strikes against the Iraqi fielded forces. Coalition forces employed

PGMs against ground forces only 6.5 percent of the time in *Desert Storm* versus 67 percent in *Iraqi Freedom*. The combination of higher intensity and precision meant enemy soldiers experienced an unprecedented withering air attack meant to break their will to resist. The question is whether it did.

Better To Quit Than Fight

Iraqi Freedom planners seemed to follow Hosmer's concept of operations almost exactly.¹⁰ The results were both impressive and sobering. Again, comparing the two Gulf Wars gives the best indication of effectiveness since they involved the same regime confronting similar forces. Studies indicate that the gradually building intensity of coalition air strikes coupled with privations forced by air interdiction led to a 40 percent desertion rate by Iraqi forces within Kuwait in 1991. However, by early April the level in *Iraqi*

Freedom reached 90 percent in some units. Overall, enemy desertion rates exceeded those of *Desert Storm* despite the shorter duration and smaller aggregate of munitions used. As Conetta notes, "collapse seemed to be preceded by a period of holding fast in defensive positions, attempting some substantial counteroffensive actions, and undergoing withering coalition aerial and artillery assaults." Accounts from the field give most of the credit to airpower:

*Airstrikes killed 600 more of [Iraqi battalion commander] Jaburi's men on Monday and Tuesday last week. American troops were forced to retreat 12 miles to Salman Pak... but the game was over. Divisional headquarters in Baghdad ordered them back to their base in the north... More than half the remaining men deserted, stripping off their uniforms and heading home to protect their families.*¹¹

Hosmer's psychological effects dominated in the end. Despite low casualties overall, Iraqi forces disintegrated when faced with the ubiquity of coalition airpower, focused attacks on elite units, and their own inability to produce effective counterstrategy. The ability for rapid exploitation by ground forces was pivotal to airpower effects. As Iraqi units were forced to maneuver to counter ground forces, they made themselves extremely vulnerable to air attacks. Large formations with high fatalities served as an example to lesser divisions. Conetta concludes, "The rest would have learned—as the coalition intended—that it was better to quit than fight." Given the mass collapse of Iraqi resistance and its subsequent defeat, it is important to determine

airspace access gave the coalition the unprecedented ability to gain precise information well in advance of hostilities

whether this unique use of airpower had these effects due to the specific circumstances of *Iraqi Freedom*.

Though three factors make the second Gulf War idiosyncratic, they do not invalidate general lessons for future air operations. First, Iraq was defeated in *Desert Storm* by a massed assault that

left it still weakened 11 years after the fact. With the ongoing economic sanctions, restrictive trade regimes, and pervasive internal strife, Saddam's government and military were stretched to the breaking point even before fighting began. Baghdad went into the conflict not expecting a win but hoping for a good showing:

*Iraqi armed forces had . . . never recovered from being pulverized in the 1991 Gulf War. 'You can't fight with what was left . . . and this war was not just about what you learn at the military academy—it is technological, and we recognized that,' says [Iraqi officer] Asaad. 'The Army believed that from the first bullet fired by the British in the south, it would lose.'*¹²

Few soldiers wish to give their life to a hopeless cause in defense of a hated regime. However, with America's expanding military superiority, the balance of military power with a future adversary is likely to be the same or even more lopsided. Coupled with that, the recent U.S. track record will likely leave the forces of potential foes with the same level of expectations of victory the Iraqis had.

The second unique circumstance the coalition enjoyed was the ability to leverage 11 years of access and experience. During those years, especially immediately preceding *Iraqi Freedom*, the coalition was able to use retaliatory and punitive strikes to paralyze air defenses. The combination of *Southern*

Watch and *Northern Watch* also kept the Iraqi air force marginalized, making it irrelevant in *Iraqi Freedom* and essentially giving the air medium up to coalition forces. Airspace access also gave coalition air-breathing intelligence, surveillance, and reconnaissance (ISR) assets the unprecedented ability to gain precise information well in advance of hostilities. Key was the ability to identify and track enemy forces along most of *Iraqi Freedom's* axis of advance. This immediate and pervasive air and information supremacy, coupled with coalition dominance of space, enabled a concentrated assault. While future conflicts will not likely include these advantages, the U.S. lead in ISR platform capability and low-observable technology will still provide a substantial edge in most conventional scenarios. Important among these capabilities is a continuing American superiority in space. Regarding air superiority, the counterair threat will remain minimal, especially with the advent of the F/A-22, while the surface threat is more problematic and may require an initial period of airstrikes to gain the access for effective counterland operations. Initial air superiority will thus rapidly become air dominance into the foreseeable future.

The final factor driving the outcome of *Iraqi Freedom* was that it was a conventional campaign waged by a joint force. This context presented the coalition with an adversary dependent on heavy mechanized forces that could be compelled to mass defensively. The Iraqis were unable to disperse, as the Serbs had in Operation *Allied Force*, for fear of being overrun by ground forces. These factors combined to make the Iraqis excessively vulnerable to air attacks. Because it was a conventional conflict, the defenders also lacked the ability to melt into the countryside and await more opportune times for counterattack. A future scenario characterized by the exclusive use of airpower, or against an unconventional threat such as al Qaeda, would pose significant challenges to a psychological denial strategy. Conventional doctrine and current technology do not mitigate these challenges. Importantly, though, these other types of conflict imply radi-



U.S. Air Force (Aaron D. Allmon II)

F-15Es on combat sortie in support of *Iraqi Freedom*

cally different strategies based on their widely differing centers of gravity. The CFC in both Gulf Wars identified the Republican Guard as a strategic center of gravity. In some future scenarios, ground forces may not be so considered. The center of gravity in an unconventional threat may be the sympathy of a target populace, a poor target for a fighter-bomber. In an air-only scenario, the center of gravity may be the leader and his cost-benefit calculus. But given that conventional threats still exist, the lessons and implications of airpower operations in *Iraqi Freedom* are applicable for the future.

Psychological Denial

The *Iraqi Freedom* experience reinforces the Air Force move to redefine strategic attack. Air Force Doctrine Document 2-1.2, *Strategic Attack*, identifies it as:

Those operations intended to directly achieve strategic effects by striking directly at the enemy's centers of gravity. These operations are designed to achieve their objectives without first having to directly engage the adversary's fielded military forces in extended operations at the operational and tactical levels of war.

While the first section is still valid, explicitly excluding the adversary's fielded forces as a center of gravity is problematic given the experience of *Iraqi Freedom*. Today the Air Force is moving to a definition that is both more inclusive of fielded forces as a possible center of gravity but also more focused on gaining operational and national objectives. The 2001 Air Force Doctrine Symposium proposed that strategic attack is "offensive action conducted by command authorities aimed at generating effects that most directly achieve our national security objectives by affecting an adversary's leadership, conflict sustaining resources, and/or strategy." This definition continues to focus air planners on both striking the enemy's center of gravity and defeating his strategy.

The Air Force should invest more in capabilities such as enhanced JSTARS, Global Hawk, and Blue Force Tracking to improve its ability to strike fielded forces. JSTARS has proven itself

in contingency operations since *Desert Storm*. *Iraqi Freedom* was the first operation in which it deployed in its production configuration. In Iraq, it proved invaluable to the effects described above:

Iraqi soldiers, interviewed by U.S. troops during and just after Gulf War II, commonly reported that their morale collapsed when, in the midst of a raging sandstorm, armored vehicles began exploding all around them. . . . JSTARS performance during the dust storms proved to be 'a major turning point' in the war, according to Air Force Chief of Staff General John P. Jumper, USAF.¹³

More of these platforms with enhanced sensors to detect ever smaller units with greater fidelity are not only key to attacking the conventional massed forces faced in Iraq, but they could also mitigate the challenges

Iraqi Freedom reinforces the Air Force move to redefine strategic attack

posed by a dispersed adversary. Another critical piece of the sandstorm attack was Global Hawk. In combination with JSTARS,

Global Hawk allowed coalition air strikes to continue. . . . While [its] optical and infrared sensors were blinded by the dust, the aircraft could focus its radar sensor on the Republican Guard below—checking to see if those forces were still at point A or B. Once again, Global Hawk passed updated information on to fighters and bombers using [joint direct attack munitions] to continue the attacks.¹⁴

The psychological effect of this attack is hard to overstate. According to a Republican Guard captain, it affected the morale of the soldiers, who were hiding and thought nobody could find them. Some fled their positions. Sometimes, though, even when the air forces know the enemy position, nearby joint ground forces are leery of airpower attacks because of friendly fire concerns.

When the enemy is massed in proximity with friendly forces, the Air Force is posed with another challenge in targeting fielded forces. Currently, the fire support coordination

line requires a time-consuming process to clear airpower to attack proximate threats. An effective Blue Force Tracking System that allows direct air attacks is an important development in bringing rapid, decisive airpower to the close fight. This is especially true in the nonlinear battlespace that, according to the Army, we are moving toward. *Stryker Brigade Combat Team Army Transformation* states:

Depending on the nature and evolution of the contingency, conditions may require the [Stryker Brigade Combat Team] to operate in a continuum of linear, contiguous operations, or, to conduct nonlinear operations, with tactical actions separated spatially, but focused with respect to timing and purpose against key enemy capabilities and assets.¹⁵

According to Lieutenant General William Wallace, USA, commander, V Corps, during *Iraqi Freedom*, "Blue Force Tracking provides the ability to deny fires to occur, but it doesn't clear fires. Because of that,

there's going to have to be some kind of identify friend or foe system that complements Blue Force Tracking."¹⁶ The Air Force should cooperate with the Army and Marine Corps to ensure the final product provides this capability, which will help not only in large-force engagements but also in support of small unit operations. The overall effect will be to multiply the scenarios where concentrated airpower can decisively engage fielded forces.

While some circumstances surrounding operations in *Iraqi Freedom* were idiosyncratic, the resulting air operations have broad applicability. As more data becomes available, the military should continue to explore the efficacy of the psychological denial strategy implied by Hosmer's theory and how it can be used more efficiently. Current trends to reassess the nature of strategic attack should continue at both Air Force and joint levels, along with focused investments in systems such as JSTARS, Global Hawk, and Blue Force Tracking that enable and extend the joint force air component's abil-



F/A-18 launching from
USS Harry S. Truman
during Iraqi Freedom

USS Harry S. Truman (Ricardo J. Reyes)

ity to apply the psychological denial strategy. Stephen Hosmer developed his conception of psychological denial from the glimmerings of airpower actions after World War II. Operation *Iraqi Freedom* provides convincing evidence that it is a successful strategy that future joint campaign planners should consider. **JFQ**

NOTES

¹ William Branigin, "A Brief, Bitter War for Iraq's Military Officers: Self-Deception a Factor in Defeat," *The Washington Post*, April 27, 2003, A25.

² Stephen T. Hosmer, *Psychological Effects of U.S. Air Operations in Four Wars 1941-1991: Lessons for U.S. Commanders* (Santa Monica, CA: RAND, 1996), xv. This article draws heavily on Hosmer's work throughout.

³ Carl Conetta, "Catastrophic Interdiction: Air Power and the Collapse of the Iraqi Field Army in the 2003 War," Project on Defense Alternatives Briefing Memo 30, September 26, 2003, <<http://www.comw.org/pda/fulltext/0309bm30.pdf>>, 1. While Con-

etta uses the term *catastrophic interdiction*, this article uses *psychological denial* to dispel confusion and relate this strategy to Robert A. Pape's denial strategy.

⁴ Robert A. Pape, *Bombing To Win: Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996), 30.

⁵ Branigin, "A Brief, Bitter War," A25.

⁶ General Accounting Office, *Operation Desert Storm: Evaluation of the Air Campaign* (Washington: General Accounting Office, June 1997), appendix V, 1.

⁷ USCENTAF Assessment and Analysis Division, *Operation Iraqi Freedom—By the Numbers*, April 30, 2003, <<http://www.urbanoperations.com/oifcentaf.pdf>>, 4.

⁸ General Accounting Office, *Evaluation of the Air Campaign*, 1.1.

⁹ Richard J. Newman, "The Iraqi File," *Air Force* (July 2003), 52.

¹⁰ Besides the previous detailed ground force strikes, U.S. planners also integrated the plan with psychological operations. "Because American strategists did not expect Iraq's regular army units to fight very hard, they concluded that elite units would be the key barrier blocking the path of U.S. forces to the heart of Saddam's power in Baghdad. That's why they were the targets of much of the leafleting . . . prior to the war, when printed messages, dropped from

U.S. aircraft, urged Iraqi commanders and troops to turn on Saddam, with detailed instructions about how to position their troops and vehicles to signal surrender and avoid U.S. air attacks." *Ibid.*, 51.

¹¹ Scott Peterson and Peter Ford, "From Iraqi Officers, Three Tales of Shock and Defeat," *Christian Science Monitor*, April 18, 2003, <<http://www.csmonitor.com/2003/0418/p01s03-woiq.html>>.

¹² *Ibid.*, 1.

¹³ John A. Tirpack, "The Blended Wing Goes to War," *Air Force* (October 2003), 27.

¹⁴ Rebecca Grant, "Eyes Wide Open," *Air Force* (November 2003), 42.

¹⁵ 25th Infantry Division (Light), *Army Transformation Environmental Impact Statement*, appendix C, December 16, 2003, <<http://www.ttsfo.com/sbcteis/deis/Appendices/Appendix%20C.pdf>>.

¹⁶ Mathew French, "Generals Point Ways to Better Blue Force," *Federal Computer Weekly* (October 21, 2003), <<http://www.fcw.com/fcw/articles/2003/1020/web-oif-10-21-03.asp>>.