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Air Power Lessons Learned in Operation Desert Storm

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A paper submitted to the Faculty of the Naval War College.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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INTRODUCTION

After decades of fighting terrorist networks, United States policymakers and military commanders must once again prepare to wage high-end war against a formidable state actor. To meet emerging threats, the U.S. and its allies should extract the most critical lessons learned from historical experiences to achieve shared security objectives in the next fight. Operation Desert Storm of the 1991 Gulf War is a rich historical case study that practitioners need to study carefully in considering the application of air power in future conflicts. Desert Storm reveals three significant operational air power lessons that U.S. civilian and military leaders should heed to improve air power's effectiveness in supporting future objectives. First, Desert Storm demonstrated air power's increased lethality and operational coherence under a unified air commander. Second, despite unity of air command, American leaders failed to ensure unity of effort. This disunity of effort was apparent in the air planners' flawed operational idea that sought victory with air power alone and underemphasized destroying Iraqi ground forces in spite of stated objectives. Third, U.S. leaders diluted air power in the decisive ground campaign by executing an air plan that strayed from official objectives. As a consequence of the fractured air effort that reduced air power in the ground campaign, the U.S. failed to achieve the key war aim of eliminating the Republican Guard. As American commanders prepare for the next conflict, they should use these lessons to inform future operational ideas to maximize air power in pursuit of formal objectives.

AIR POWER BOLSTERED: UNITY OF COMMAND

Before implementing a new construct in Desert Storm, the U.S. lacked unity of air command in the Vietnam War.[1] Unity of command empowers a single commander to control all the forces assigned to a mission with clear lines of responsibility and a focus on joint service

integration.[2] In Vietnam, the coordination of air effects suffered from the absence of centralized control inherent in unified command. The Commander U.S. Military Assistance Command Vietnam (COMUSMACV) had neither the responsibility for air operations in North Vietnam nor the control of all tactical air operations in South Vietnam.[3] Instead, the theater consisted of seven geographic areas or "route packages" where each service executed distinct air operations that lacked cohesion in obtaining U.S. objectives.[4] In the absence of unified air command, divided route packages became the operational norm. Tactical Air Command dictated air attacks within South Vietnam, Strategic Air Command tasked B-52 strikes, and the Navy directed its assets from carriers in the South China Sea.[5] Further, COMUSMACV lacked operational control of the huge force of Army and Marine helicopters in the theater.[6] As a result, no single commander was responsible for continual reassessment of tactical air power employment to ensure that it supported overall objectives.

Divided air command precluded the unity of effort required to link tactical gains to operational objectives. In Vietnam, six competing command authorities resulted in disorganized execution as each service pursued stove-piped route packages that lacked operational cohesion or unity of effort.[7] As a consequence of its disunity of command, the U.S. never achieved unity of effort. Unity of effort is the "solidarity of purpose, effort, and command [that] directs all energies, assets, and activities toward desired ends."[8] Without unity of effort to ensure tactical cohesion tied to operational objectives—operational art was exceptionally weak. Disjointed tactical air attacks yielded enemy body counts that were irrelevant beyond the tactical level. Rarely did these strikes support the overall objective: an independent non-Communist South Vietnam.[9] Without a unified commander to coordinate air effects, air power was largely ineffective in achieving operational objectives. In this model, the U.S. had little hope of

achieving sequenced or synchronized effects because it employed air power against uncoordinated aims with minimal operational coherence. However, as a result of lessons learned in Vietnam, the U.S. empowered a joint air commander in Desert Storm to coalesce air effects.[10]

Because inter-service tensions were high regarding the consolidation of air components under a single commander, thoughtful implementation and building trust proved crucial elements for operational success. DoD leaders determined that the Joint Force Air Component Commander (JFACC) role would go to the service with the preponderance of air assets in a given air campaign. For example, an air operation built around carrier aviation would have an admiral as JFACC while an operation based around land-based air assets would have an Air Force General in command.[11] This design ensured that the objective and level of contribution were the principal factors in deciding which service would provide overall leadership for future campaigns. Selection of a JFACC without these provisions would exacerbate service concerns regarding proper employment of air power to achieve mission objectives. Thus, based on the objective and available assets, an Air Force officer, Lt General Charles Horner, was the logical choice to serve as JFACC in Desert Storm and laid the foundation for successful unity of command.

Legitimacy and empowerment for this consolidated authority came straight from the Commander-in-Chief (CINC), United States Central Command, General Norman Schwarzkopf. Beginning in the planning phase and through execution, Schwarzkopf made it clear that each service must not fight its own air war.[12] He stated his expectation for unified command in plain language: “If you aren’t part of the air campaign under Horner, you don’t fly.”[13] This empowerment was critical in establishing legitimacy for the role amid considerable service-specific reservations. The Army, Navy and Marine Corps each held reservations regarding

consolidation of its assets under a single leader from another service with potentially divergent priorities. However, Schwarzkopf solidified unity of air command with his strong support for Horner as the single focal point for all air operations. Such clear empowerment of the air component commander fostered a notable trust and understanding between the theater commander and the air campaign leader. This trust enabled both to work towards a common objective—a dynamic absent in Vietnam.[14]

Unity of command in Desert Storm was a significant improvement over Vietnam because it coalesced divergent air efforts and maximized lethality in direct support of national objectives. The air campaign's most significant contribution to U.S. objectives was its success in creating extreme confusion and friction within the enemy's air defenses and will to resist.[15] In this model, a unified air power commander ensured coherent operational effects as devastation rained down from every service. From the outset of the air campaign, the U.S. unleashed its full joint and Coalition inventory on the enemy to obliterate Iraqi air defenses, achieve air superiority, and batter Iraqi fielded forces.[16] The totality of the joint fires was so destructive that Iraqi air defense system operators became helpless to defend themselves. Many of these air defenders decided to keep their surface air missile batteries off so not to betray their position and invite destruction by the Coalition air assault.[17] Coalition air strikes dismantled Iraqi air defenses, destroyed hundreds of enemy aircraft, and damaged several airfields so completely that the Iraqis conceded the air fight early in the war, all of which alleviated Coalition fears that the Iraqis would air-deploy chemical or biological weapons.[18] Iraqi use of air-delivered weapons of mass destruction would have led to a major escalation of the war. However, unified fires brought to bear through unity of command helped to neutralize this critical threat to operational and strategic objectives.

Unified air command also made a significant impact on the cohesion of air effects in achieving U.S. objectives while driving the cost of victory down. The magnitude of the air campaign necessitated maximum organizational coherence to focus the colossal force of air power. From 17 January to 28 February 1991, the U.S. and its allies sortied 1,800 combat aircraft, in 110,000 flights, and delivered 90,000 tons of ordnance on Iraqi targets..[19] While the number of sorties or bombs dropped on Saddam's forces was not a guarantor of achieving objectives, these figures do illustrate the intensely crowded nature of the airspace. The need for robust command organization was paramount amid this mass of force to meet operational objectives while ensuring fliers were as safe as possible. Coalition pilots conducted the massive 43-day air campaign with no significant operational pauses for critical reassessment. Thus, it was essential for the Coalition to have peak organizational command coherence from the start. Unlike in Vietnam, the U.S. had weeks—not years—to employ air power in pursuit of objectives. There was no time to waste through disparate air efforts that lacked peak coherence in achieving objectives. Finally, unified command drove down Coalition casualties as it ensured maximum coordination among air components. The Coalition lost just 38 fixed-wing aircraft in 110,000 sorties, with no mid-air collisions, no friendly air-to-air shoot downs, and only 11 fliers killed in combat..[20]

However, unified air command did have outspoken detractors, especially among Navy and Marine aviators. Navy and Marine Corps critics insisted that the JFACC model was too expansive and infringed too much on the organizational integrity of individual service components. As a result, unified command created significant friction. First, the Marine Corps held exceptionally strong reservations about unified control of air power. It viewed any joint tasking of its air resources as a diversion from its first responsibility to support Marine battlefield

operations.[21] Similarly, the Navy had serious concerns regarding its top priority of fleet defense. While these concerns were well-founded, skillful compromise and adaptation ensured that unified air command succeeded in Desert Storm.

Trust and compromise were vital components to the eventual success of unified air command in the Gulf War. Marine consternation with the subordination of their air assets and the eventual compromise that eased their objections demonstrates just how critical operational leadership and flexibility were in implementing this concept. Marine Major General Royal Moore and Air Force Major General Buster Glosson bridged the gap with a critical compromise. The Marines agreed to contribute their A-6E bombers, EA-6B jammers, and half of their FA-18 fighters to the JFACC, but they would retain aircraft for direct support to Marine operations.[22] This compromise challenged Schwarzkopf's direction that planes would not fly unless under the direction of Horner. However, the agreement is a strong example of adaptation to build trust while ensuring service priorities. Similarly, to ease the Navy's reservations regarding fleet defense, it was allowed to retain aircraft for this service priority.[23] In the end, flexibility and adaptation proved critical in unifying command across joint services in pursuit of national objectives.

The Gulf War demonstrates a critical joint air power lesson: unified command significantly bolstered air power lethality and operational coherence. Having learned from its uncoordinated efforts in Vietnam, the U.S. employed a new organizational command construct that led to the increased cohesion it was so clearly missing. The JFACC's authority over all aspects of the air campaign allowed him to link air effects across the services in support of stated objectives. As a result, the U.S. massed air power in devastating strikes against Iraqi air defenses. Nonetheless,

unity of command failed to ensure unity of effort in planning and executing the air operational idea and drove major consequences as planners employed air power beyond stated objectives.

AIR POWER BEYOND THE OBJECTIVE

Despite having clear national objectives informing a strong operational idea for the air campaign, U.S. planners failed to stick to the objective in planning the air war. In an archetype of limited war for limited aims, the U.S. went to war in the Gulf with clearly stated objectives outlined in National Security Directive 54 (NSD 54). NSD 54 called for the destruction of Iraq's command, control and communications (C3) network, the eviction of Iraqi forces from Kuwait, and the elimination of the Republican Guard as an effective fighting force.[24] However, U.S. air planners exceeded the war's limited aims by using air power to achieve an objective well beyond NSD 54. Despite having a JFACC to ensure air power's effectiveness in meeting national aims, the U.S lacked unity of effort in devising the air operational idea to secure those clear objectives. Air Force Colonel John A. Warden III's Pentagon planning team was responsible for the fractured air effort. From the outset, his team's operational idea conflicted with the stated objective of the destruction of the Republican Guard. The operational idea is a bold thesis-like statement at the heart of an operational design that describes how force will be applied to defeat an enemy center of gravity.[25] Warden's operational idea, however, was narrow, the antithesis of joint—and it was flawed. He alleged that air power alone would win the war by striking key leadership targets to paralyze the Iraqi government to incite regime change through a coup or revolt.[26] These elements informed the initial air campaign plan, known as Instant Thunder, and set the U.S. on a course to employ air power to achieve unofficial objectives.

Warden's "air power alone" scheme clashed with official objectives. According to the *Gulf War Air Power Survey*, Warden's planning team created a concept of operations and a

targeting list "designed to accomplish the president's objectives using air power alone."[27] This planning concept is particularly egregious for two reasons. Neither President Bush nor Schwarzkopf maintained any requirement that called for the air instrument as the sole means of power to achieve NSD 54 aims. That the planning team designed air operations around this narrow prescription is at odds with the stated objectives, especially the requirement to forcibly remove Iraqi forces from Kuwait. Powell, Schwarzkopf, and Horner all felt strongly that a ground campaign was essential to achieve President Bush's objectives.[28] Further, the notion of "air power alone" was directly at odds with the calls for cohesive joint operations in the 1986 Goldwater-Nichols Act. It was the JFACC, Horner, who displayed keen operational leadership and focus on the objective when he raised major objections to this flawed scheme. Horner specifically disapproved of Instant Thunder's disregard for the Iraqi forces in Kuwait.[29] Warden's plan foolishly relied on air power to achieve objectives on its own. Most importantly, there was no requirement to achieve victory through air power alone, and therefore it should not have influenced air planning. The JFACC identified these critical flaws in the air war planning from the outset.

Horner was adamant in his belief that the U.S. must not limit its options to achieve Gulf War objectives. Five months before the opening of Desert Storm, Horner angrily confronted Warden in their first meeting to discuss the air operational idea.[30] In a heated argument regarding the details of Instant Thunder, Horner peppered Warden with pointed questions to determine if the initial air plan created joint synergy tied to NSD 54 objectives. He demanded to know how the air campaign would support the land offensive.[31] Warden's response was revealing: in his air plan, Iraq's ground forces were not significant.[32] Horner eventually selected Brigadier General Glosson to devise a much more joint air campaign plan focused on stated

objectives. However, despite Horner's disagreement with Warden's plan, enough of Instant Thunder's target prioritization inexplicably made it into execution. Thus, Horner was ultimately unsuccessful in eradicating the "air power alone" delusion as disunity of effort persisted in air war planning. Horner's failure on this key point is due in part to Schwarzkopf's puzzling support of Warden's plan. Though he "was never persuaded that air power could triumph on its own," Schwarzkopf's support for Warden's concept was based on a critical misinterpretation of the plan.[33]

The operational commander's misunderstanding regarding the essence of Instant Thunder had a profound effect on the Coalition falling short of its objectives in Desert Storm. After an initial pitch to Schwarzkopf, Warden thought he had sold the commander on Instant Thunder as devised—with air power alone informing the operational idea.[34] Schwarzkopf, on the other hand, understood the plan as a "precursor to an offensive plan [and] as a way to reduce Iraqi strength prior to a ground war."[35] Thus, he considered air power as an enabler of the ground war in stark contradiction to Warden's narrow air power alone scheme. The confusion on this point is significant because the theater commander "did not fully grasp the essence of the Warden plan."[36] Such an enormous misunderstanding between the theater commander and lead air planner, coupled with Powell's and Horner's objections, reveals a fundamental breakdown in linking the operational air plan to the stated objectives.

Amid this confusion and disharmony, Warden's team envisioned employing air power to induce regime change rather than to destroy Iraqi fielded forces in Kuwait. The *Gulf War Air Power Survey* states that strikes against facilities that might house Saddam, regime headquarters, and the Ministry of Defense were the sites that planners were determined to destroy to win with air power alone.[37] Strikes against these targets were assessed to "not just neutralize the

government but change it by inducing a coup or revolt."[38] Warden stated the goal of the air campaign flatly: "The Saddam Hussein regime is our target."[39] However, regime change was not a stated objective in NSD 54. Further, Powell and Schwarzkopf rejected the idea that removing Saddam should be the goal of the air campaign.[40] These leaders understood that such an aim went well beyond NSD 54 and could threaten the Coalition. Additionally, UN resolutions provided international legitimacy authorizing force to evict Iraqi forces from Kuwait but made no provision for eliminating Saddam.[41] In targeting Saddam, the U.S. squandered critical air resources in futile attempts to achieve an unofficial objective and encountered enormous risk that threatened mission success.

Warden's targeting of Saddam's regime was fraught with operational risk. First, the air plan's prioritization of leadership targets over fielded forces had an obvious weakness—What if "air power alone" did not work? There was a strong likelihood that after the proposed six days of concentrated strikes in the original Instant Thunder, Saddam would still be in power. As it played out, in the six weeks of air strikes that preceded the ground campaign, 6,295 strategic attacks including 260 precision and non-precision strikes on leadership targets failed to kill a single top military or political leader.[42] Despite these attacks, Saddam and each of the top forty-three Iraqi leaders survived the war.[43] These strikes and the tons of bombs dropped on leadership targets could have been used in attacks more directly linked to NSD 54 objectives—like the elimination of the Republican Guard.

These air strikes also posed a significant political risk that demanded top-level mitigation. Powell eventually restricted Horner's largely free hand to plan and execute offensive air operations after the Al Firdos bunker incident. At Al Firdos, hundreds of Iraqi civilians were killed by two U.S. F-117s that dropped bunker-busting bombs onto a suspected Iraqi leadership

hideout.[44] Warden was directly involved in planning the Al Firdos attack, and though he tried to ensure civilian safety, the attack underscores the political risk of pursuing the unstated objective of targeting Saddam.[45] Ultimately, this episode exposed the critical divide among military leaders and planners over air power employment. Finally, it demonstrates that unity of command did not prevent disunity of effort in the air war.

While air power made invaluable contributions in Desert Storm, U.S. planners employed it in ways that exceeded national objectives. Warden's planning team envisioned using air power much more narrowly than these contributions suggest. His plan emphasized using air power alone to win the war by setting conditions for regime change rather than focusing on annihilating Iraqi ground forces. Although Powell and Horner did eventually reign in the wayward air war, by targeting Saddam, the U.S. wasted critical resources against an unofficial objective instead of massing all available air power against elite Iraqi ground forces in Kuwait. Thus, disunity of effort led to air power's most glaring weakness in Desert Storm—its ineffectiveness in destroying the Republican Guard.

AIR POWER REDUCED IN THE GROUND CAMPAIGN

Incomplete unity of effort led to a key U.S. failure on the ground—the U.S. did not achieve the NSD 54 objective of eliminating the Republican Guard as an effective fighting force. Lacking singular focus on approved objectives, the U.S. employed its flawed operational idea beyond NSD 54 and reduced air power's effectiveness in the critical ground campaign. However, the vast majority of literature on air power in the Gulf War misses this critical point. Instead, leading accounts exalt air power as the decisive element of Desert Storm. The authors of *The General's War* allege that "air attacks made it impossible for the Iraqis to mount an effective defense. Air power crippled the Iraqi war machine."[46] Similarly, in "The Myth of Air Power in the Persian Gulf War," Daryl Press summarizes the conclusion of the *Gulf War Air Power*

Survey "that air power was the decisive factor [in the] crushing military defeat of the Iraqis."[47] However, these narratives are wrong—U.S. air power did not immobilize the heavy Republican Guard divisions that were so central to the Iraqi regime's survival. This led to the wider U.S. failure of not achieving the objective that friendly forces "eliminate the Republican Guard as an effective fighting force."[48] Ultimately, air power missed the mark. Warden's divergent air planning prioritized the unstated objective of overthrowing Saddam above the approved objective of destroying the Republican Guard. The consequences of this disunity of effort were significant. By not destroying the Iraqi army's maneuverability, air power failed to stop the enemy from completing key movements that devastated U.S. objectives.

Despite having a clear understanding of President Bush's objectives, senior U.S. military leaders failed to focus the air war on destroying the Republican Guard. First, Powell asserted that his objective on the ground was "very simple. First, we're going to cut off [the Iraqi army], and then we're going to kill it."[49] Next, Schwarzkopf demanded annihilation of the Iraqi army: "We need to destroy—not attack, not damage, not surround—I want you to *destroy* the Republican Guard."[50] However, neither Powell at the strategic level nor Schwarzkopf or Horner at the operational level took sufficient corrective action to guarantee that air planning focused entirely on this critical objective. Consequently, disunity in air planning led to air power's inability to immobilize Iraqi's most elite ground forces. Ultimately, this lapse in leadership had a significant impact on the U.S. failure to eliminate the Republican Guard as an effective fighting force and underscores air power's limitations in delivering core objectives in the Gulf War.

Because U.S. leadership failed to focus air power on the objective, Coalition air power was too disjointed to pin down the most critical elements of the Iraqi army. As Warden's team targeted Saddam in Iraq, elite Iraqi ground forces moved to check U.S. efforts in Kuwait. Of the

nine heavy divisions of the regular army in the Kuwait Theater of Operations, only one did not move against Coalition troops, while two attacked U.S. Marines, and two moved to block the left hook.[51] Further, each of the three heavy divisions of the Republican Guard moved west from their positions to oppose the Army VII and XVIII Corps in the left hook. These pivotal enemy units were "hardly hit as they maneuvered."[52] While coalition air power was more than capable of destroying enemy vehicles moving along roads as demonstrated on the Highway of Death, the best units in the Iraqi force moved to oppose the Coalition flanking movement out in the open desert. These elite units maintained sufficient maneuverability to flee back to Iraq, thwarting the objective of impeding the Iraqi ground force from reuniting with Saddam.

American military leaders failed to unify and employ air power to destroy the Republican Guard's maneuverability in support of stated objectives. That ability to maneuver proved critical as crucial components of the Iraqi army were not cut-off as Powell directed. Of the 110,000 Republican Guard troops that began the Gulf War, 55,000 survived the war to rescue the Baathist regime.[53] The failure to destroy these critical forces is due in large part to the misplaced focus of the air campaign. Despite Powell's emphasis on destroying Iraqi fielded forces, Warden did not want to dilute U.S. decapitation strikes by diverting resources to attack Iraqi ground forces.[54] In direct contradiction with national objectives, Warden's plan relegated the destruction of Iraqi fielded forces to a secondary priority. Accordingly, his plan employed the Coalition's most advanced planes in attacks deep within Iraq rather than against ground forces in Kuwait.[55] By using its most capable aircraft to support air planner aims—rather than stated objectives—U.S. bombing to pin down the Republican Guard produced mixed results because of B-52 inaccuracy issues against dug-in Iraqi forces.[56] Thus, as in Vietnam, air power was not as effective as it

could have been in delivering national objectives. Despite concerted U.S. efforts to right the air power wrongs of Vietnam, once again disunity of air effort led to a key mission failure.

The Republican Guard's escape is critical to this analysis because these elite units were the forces that secured Saddam's grip on power after the war. Using 365 T-72 tanks that survived the war along-side critical headquarters units that evaded the Coalition, the Republican Guard first savaged Shiite revolts in the south before turning to crush Kurdish uprisings in the north of Iraq.[57] Thus, U.S. hopes for a successful organic coup within Iraq that would not require U.S. troops to march on Baghdad to achieve regime change ended with the brutal suppression of these uprisings. Iraqi freedom of action to move led directly to these vital components escaping deep within Iraq. This escape resulted in a significant strategic setback as these forces butchered the uprisings, ending U.S. hopes for regime change without an invasion.

Though air power contributions were significant in Desert Storm and drove down the cost of victory regarding casualties, air power's performance in setting battlefield conditions fell short of air planner predictions. Warden's team assessed that air power would destroy fifty percent of the Iraqi ground force before a ground campaign.[58] Instead, U.S. intelligence estimates assessed that the reduction of the Iraqi force was actually between ten and twenty-five percent.[59] While this was a significant accomplishment, it was substantially less than what Air Force planners predicted. The difference between this prediction and what occurred underscores the fact that air power did not prove nearly as decisive as was anticipated in the planning phase. Instead, the ground campaign ultimately proved the decisive phase of the war.[60] It was Coalition ground forces that evicted Saddam from Kuwait, aided by—but not contingent upon—air power.

Though air power destroyed thousands of vehicles and battered Iraqi morale, the most essential Iraqi heavy divisions maintained their ability to maneuver throughout the war. Heavy

regular army and Republican Guard divisions enjoyed sufficient freedom of maneuver despite erroneous contentions that Coalition air strikes ripped freedom of maneuver from the Iraqis. These units retained sufficient maneuverability to undermine U.S. war aims significantly. As a result, air power should not be considered the decisive element in the ground war. Further, it should not be considered the force that unequivocally won the war as air power advocate Richard Hallion asserts.[61] Though unity of command drove unity of air effort against Iraqi air defenses and C3, the JFACC failed to ensure critical unity of effort in the ground war. U.S. leaders must reject conclusions that exalt air power as the decisive element in Desert Storm, or they risk bungling future objectives with similarly misguided applications of air power.

CONCLUSION

Desert Storm provides invaluable lessons that illuminate how best to maximize air power across joint and coalition forces in the contemporary international landscape. After a long war focused on defeating terrorist networks, the U.S. once again faces significant challenges to national security posed by peer and near-peer state adversaries. As American military commanders plan to defeat these formidable opponents, they must strongly consider the proper employment of air power in pursuit of U.S. security objectives. First, as the U.S. faces an increasingly multipolar international landscape, it must maximize the synergy and lethality that air power provides. The unity of command and concentrated fires demonstrated in Desert Storm will be critical in any fight with a peer or near-peer competitor in a high-end war. Against modern state actors, complete unity of air effort driven by unity of command will be essential in achieving security objectives against opponents with formidable air forces and world-class air defenses.

U.S. commanders must always employ air power in direct support of stated national objectives. The JFACC must establish unity of effort with a focus on official objectives in all

phases of the air campaign from the earliest planning stages through operational execution. As the U.S. looks to bolster its readiness to fight against peer competitors, it must not waste effort in trying to attain national security objectives with one instrument of power alone. Further, air power must be employed to dominate the air and to set conditions on the ground and at sea. Air power should not be counted on to induce regime change—or to accomplish any other aim that surpasses formal objectives. Executing an air war against a peer competitor that relies on air power exclusively to achieve informal aims is very likely to fail to attain stated operational objectives.

Though air power was effective in establishing some key conditions on the ground, it did not eliminate the need for a decisive ground campaign. U.S. leaders must not miss this critical lesson when devising an operational idea to defeat a peer adversary. Any fight with a peer or near-peer enemy will require seamlessly integrated air effects supporting significant ground operations. U.S. leaders must use these lessons to internalize the limitations of air power so not to minimize the essential role of ground forces in achieving national objectives. Desert Storm demonstrated that air power is insufficient to deliver a cheap or easy victory—at least not one that achieves lasting political objectives. Only a decade after Desert Storm, the U.S. was once again at war against Iraq in a painful reminder of the critical limitations of air power as employed in 1991. The U.S. must learn these air power lessons carefully—the current stakes are far too high to misapply these critical force employment lessons.

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[54] Gordon and Trainor, *The General's War*, 89.

[55] Ibid., 318.

[56] Ibid.

[57] Ibid., 449; Olsen, *A History of Air Warfare*, 200.

[58] Murray, *Air War in the Persian Gulf*, 234.

[59] Ibid., 242-243.

[60] Olsen, *A History of Air War*, 198.

[61] Press, "The Myth of Air Power," 10.