Storm Over the Desert

A–10 providing close air support.

DOD (H.H. Deffner)

A New Assessment

By BENJAMIN S. LAMBETH

Even before the first bomb fell, some observers believed the air campaign held the promise of winning the Persian Gulf War. But overall there was rampant uncertainty over whether airpower could assure the outcome without a major ground offensive that might entail a notable loss of life. Computer models using traditional assumptions about attrition warfare predicted allied casualties in the thousands. The final authorizing order from the President to the Commander in Chief, Central Command, acknowledged that losses could reach 10 percent of fielded coalition ground forces.

Despite such concerns, the consequences of initial air operations on shaping the war could not be denied. Opening attacks against command and control facilities and integrated air defenses proved uniformly successful, with some 800 combat sorties launched at night under radio silence against important targets. Only one

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coalition aircraft was lost—a Navy F/A–18—presumably to an infrared missile from a MiG–25. Over the next three days, the air campaign systematically struck targets on the strategic and operational levels, gaining unchallenged control of the air and freedom to operate with near impunity against enemy airfields, ground forces, and other assets.

When a cease-fire was declared five weeks later, most observers acknowledged the roles of all elements of the coalition, albeit with interpretations largely drawn along service lines. However, the prevailing view was that Desert Storm was the apotheosis of airpower. The only question that remained was whether the conflict pointed to the predominance of airpower in future wars and thus to a need for a new way of viewing military operations.

B–52G taking off during Gulf War.

DOD (Chris Putnam)

The conflict has been thoroughly documented. The *Gulf War Air Power Survey*, modeled on the strategic bombing survey after World War II, contributed an analytical point of departure for examining the campaign. The facts are not in dispute, but their meaning remains contentious.

Unprecedented War

Control of the air over Iraq was essentially achieved during the opening moments of Desert Storm. In contrast to the tentativeness of Operation Rolling Thunder against North Vietnam, virtually every target category in the master attack plan was hit on the first night—simultaneously to maximize shock effect. That made the opening round of Desert Storm the largest air offensive since World War II.

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Early air control operations were quintessentially strategic, depriving Iraq of both defenses and situation awareness. Perhaps the clearest indication of what air dominance meant was found in the relative rate of allied combat aircraft losses. Sortie rates remained roughly constant throughout the six weeks of fighting. Yet the coalition incurred nearly half of its aircraft losses (17) in the first week as low-level operations were needed to penetrate Iraqi air defenses, which had not been fully neutralized. Another eight were downed in the final week as low-altitude operations were resumed to support the ground campaign. Losses were largely due to optically-tracked antiaircraft artillery and infrared surface-to-air missiles (SAMs), which could not be located from the air.

Suppressing enemy air defenses (SEAD) and early neutralization of the Iraqi air force were the most acclaimed airpower achievements. Yet they only secured a buy-in condition for enabling airpower to demonstrate real leverage: engaging an enemy wholesale with virtual impunity through precision standoff attacks. This point is key to understanding the capability that airpower revealed for the first time during Desert Storm.

Three factors allowed airpower to draw down Iraqi forces sufficiently so the ground offensive could advance, secure in knowing that the enemy was badly degraded. First, the SEAD campaign freed aircraft for operations at medium altitude unmolested by either SAMs or fighters. Second, the eleventh-hour introduction of joint surveillance target attack radar system (JSTARS) aircraft permitted commanders to identify fixed and moving objects on a large enough scale to make informed force commitments and execute lethal attacks against ground force targets, day or night. Third was the realization during battlefield preparation that infrared sensors and laser-guided bombs could find and destroy dug-in tanks. All these factors gave U.S. airpower an unprecedented edge in joint warfare against ground forces.

The air campaign highlighted the fact that airpower embraces not only Air Force capabilities but Navy and Marine assets as well as Army helicopters and missiles. The first impact on opening night was not a precision weapon delivered by a stealth fighter but a Hellfire missile launched from an attack helicopter against an air defense site. Airpower harnesses all combat and combat support elements of the Armed Forces, including space and information warfare, that exploit air and space. Accepting that air warfare involves every service is an initial step toward properly assimilating the changing role of airpower.

The argument between land and air warriors over who deserves more credit for the victory is like arguing

AH–64s and OH–58s at forward operating base.

F–14As during Desert Storm.

DOD (Dave Parsons)

DOD (Dean Wagner)

over which blade of the scissors cut the paper. Because of battlefield preparation by airpower, U.S. forces suffered only 148 killed and 458 wounded out of a half million deployed. For much the same reason, less than 2 percent of the 220,000 rounds of tank ammunition shipped to the theater was fired in combat.

Looking Forward

As effective as coalition aircraft proved from the first night, it is misleading to conclude that such a display of airpower should be expected in the future. The coalition was extremely fortunate with respect to entry conditions. U.S. Central Command (CENTCOM) had five and a half months to plan, build up, and train in theater. It was not a come-as-you-are war.

Operationally, the desert was an ideal environment for airpower, though distances to target and foul weather were complications. Although effective if used properly and with determination, applying airpower over Bosnia and against Serbia proved to be much more challenging than it was against Iraq. And the future holds more, not fewer, cases like the Balkans.

In addition, Desert Storm was facilitated by an unusual degree of international cooperation. A firm U.N. Security Council mandate authorizing the use of all means necessary to eject Iraq from Kuwait, a broad-based multinational coalition, and Soviet diplomatic support were all essential. Moreover, the coalition enjoyed a basing infrastructure that left little to be desired, thanks largely to the U.S. military assistance provided to Saudi Arabia over four decades. But had allied aircraft not been based within a reasonable operating radius, the air campaign would have unfolded quite differently. The United States cannot always count on such cooperation.

The Bush administration enjoyed strong domestic support during the Gulf War, including backing by an initially reluctant Congress. In addition, there was the advantage of a strategically and tactically inept enemy which failed to move against Saudi Arabia early in the buildup. What is more, Iraq misjudged everything that mattered: whether the United States would go beyond words and muster the staying power and domestic support once committed, allied cohesion, the stance of Moscow, the effects of modern airpower, the strength of defensive fortifications around Kuwait, and the prospect of drawing the coalition into attrition warfare with high casualties. In sum, the operational setting of the conflict was uniquely congenial to airpower.

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AV–8Bs refueling on *USS Nassau.*

DOD (Scott Allen)

Worst Case Scenario

The Desert Storm model breaks down quickly in the case of Korea, where the Army and Air Force have powerful needs for mutual respect because of interdependence. Although airpower would surely be a key, no war fought there would allow the luxury of fewer than 200 casualties. North Korea would presumably fight for its survival and resort to weapons of mass destruction. Moreover, with over 500,000 armed combatants on both sides poised for immediate action along the demilitarized zone, there would be close ground combat from the start.

Airpower would likely assure allied ownership over North Korea following the outbreak of a full-fledged war and reduce losses by blunting an armored attack, drawing down enemy theater missiles and artillery, and gaining situational control by forcing opponents to remain underground. It could engage in so-called *bunker plinking*, although many North Korean facilities are sufficiently secure from air attack below ground that land forces would need to dig them out. But airpower would be unable to defeat an armored and mechanized infantry invasion alone. It could not simply combat enemy ground troops for forty days while the other side did nothing. On the contrary, there would be plenty of fighting for all allied force elements.

Overall the generous fortune the coalition enjoyed in Desert Storm warrants a measure of humility as well as caution in drawing any conclusions. For example, because Iraqi fighters never intruded into Saudi airspace, coalition early warning, reaction time, and interception capabilities were never truly put to the test of aerial combat.

Center of the Debate

Much of the post-Gulf War debate over airpower involves whether attacks against center of gravity targets, defined as leadership and infrastructure assets in and around Baghdad, significantly shaped the outcome. But this obscures the question of the real contribution of airpower by falsely bifurcating the air campaign into strategic and theater dimensions. There was a clear distinction in Desert Storm between efforts to achieve coalition objectives quickly and painlessly and concurrent attempts to affect the ability of Iraq to make further trouble in the postwar world. This second goal involved taking full advantage of an ongoing effort to diminish Iraq's capacity as a regional power.

Airpower in Desert Storm has been most criticized for its less than resounding performance on the second count. Yet it is an inappropriate yardstick for measuring effectiveness. It was on the critical but less appreciated first count—prompt air dominance and the systematic destruction of fielded forces on the ground—where airpower met the preconditions for winning the war. Aside from the controversial infrastructure attacks (no more than 10 percent

Iraqi MIG–25 destroyed during Desert Storm.

DOD (J. Otero)

of strike sorties in the war), what mattered most was the direct use of airpower for the declared mission of liberating Kuwait.

Over time the Persian Gulf War has become seen as less than a towering strategic success. Many objectives were unattained. Moreover, a debate has arisen over the decision to terminate the ground offensive at the 100-hour mark, when ground and air campaigns started to make the most of exploitation. Yet as an exercise in applying force, the operation was anything but inconclusive.

Hardware Victory

Some maintain that technological magic accounted for the lopsided coalition victory. That view reflects what has been described as the pervasive technological utopianism of American culture, which holds that all problems can be solved by the proper technological solutions. Yet that is likely to prove a hollow argument once history has the final word.

The technological edge that the coalition exercised made an important difference. Silver bullets with effects disproportionate to their numbers included F–117s, AGM–88 high-speed antiradiation missiles, APR–47 threat radar emission sensors on F–4Gs, laser-guided bombs, and JSTARS aircraft, among other systems. Without these capabilities, the war could have proven far more protracted and costly.

However, the euphoria over technology must be qualified. Two points made by Les Aspin, while Chairman of the House Armed Services Committee, warrant mention: "One, the equipment worked and was vindicated against its critics. Two, we know how to orchestrate its use in a way that makes the sum bigger than all the parts." The second point is no less critical. Though F–117s were indispensable in achieving tactical surprise and early control of the air, for example, the force multiplier of particular note was the way in which coalition assets were synergized.

High technology was pivotal, but was not the single determining factor. The training, motivation, leadership, tactical expertise, and other attributes demonstrated by all the services were important to the outcome. One need only consider the demanding task of getting 400 fighters airborne and marshaled at night in radio silence, refueled several times, and flying under tight timelines without a missed tanker connection, let alone a midair collision or other catastrophic accident, to appreciate how crucial aircrew skills and the ability to adapt under stress were to the success of the air campaign.

Desert Storm confirmed what high-tech weapons, coupled with competent leadership and good training, can do against less-endowed forces. Yet ultimately the war was not about systems or technology, although some weapons and combat support systems were star performers. It was more about consensus building and the formulation of national goals, diplomacy and leadership in pursuit of those goals, and planning and coordinated action by professionals in employing military power, notably airpower, to achieve them once negotiations and economic sanctions failed. Insofar as Desert Storm heralded a revolution in the American way of war, it was the fusion of all these ingredients in a winning combination. **JFQ**