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AIR POWER AGAINST TERROR

**America's Conduct of Operation
Enduring Freedom**

Benjamin S. Lambeth

Prepared for United States Central Command Air Forces

Approved for public release; distribution unlimited



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The research described in this report was prepared for United States Central Command Air Forces. The research was conducted within the RAND National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Department of the Navy, the Marine Corps, the defense agencies, and the defense Intelligence Community under Contract DASW01-01-C-0004.

Library of Congress Cataloging-in-Publication Data

Lambeth, Benjamin S.

Air power against terror : America's conduct of Operation Enduring Freedom / Benjamin S. Lambeth.

p. cm.

"MG-166."

Includes bibliographical references.

ISBN 0-8330-3724-2 (pbk. : alk. paper)

1. Afghan War, 2001—United States. 2. Afghan War, 2001—Aerial operations, American. 3. War on Terrorism, 2001—I. Title.

DS371.412.L36 2005

958.104'6—dc22

2005000649

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Published 2005 by the RAND Corporation

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Summary

The terrorist attacks of September 11, 2001, caught the United States and its leaders completely off guard. They also defined the face of early 21st-century conflict by elevating radical Islamist terrorism to the level of a core threat to U.S. security. The attacks were the boldest hostile act to have been committed on U.S. soil since Pearl Harbor. As such, they prompted a feeling of unity throughout United States perhaps unmatched since the nation's entry into World War II. Although no one immediately claimed responsibility for the attacks, the U.S. government quickly determined that they were the work of the wealthy Saudi Arabian exile, Osama bin Laden, and his al Qaeda terrorist network.

Even as the attacks were still under way, the alert status of U.S. forces around the world was raised to Defense Condition (DEFCON) 3, their highest alert level since the Yom Kippur War of 1973. Moves also were implemented to update plans for combat operations in the most likely areas of possible U.S. military involvement around the world. Within minutes of having learned of the attacks, U.S. commands throughout Europe, Asia, and the Middle East established crisis action teams to enforce heightened force-protection measures and to assess the status of the forces in their respective areas of responsibility that might be committed to action in the looming war on terror.

In crafting a response to the attacks, the first challenge that the Bush administration faced was building the broadest possible international coalition to lend material support and moral legitimacy to the

impending war. The second challenge entailed developing a concrete strategy that defined and specified the campaign's priorities and goals. The third was to develop a detailed force-employment plan for meeting those priorities and achieving the administration's most immediate strategic goals. Finally, there was a need to begin fielding and prepositioning the required combat and combat-support assets of all U.S. services for any such action.

Before any of these initiatives could be put into motion, however, the Department of Defense first had to establish an air defense umbrella over the United States to ensure against any further terrorist use of aircraft as weapons. Before the September 11 attacks, the United States had maintained only a token air defense posture consisting entirely of two Air National Guard fighters poised on round-the-clock 15-minute alert at each of only seven bases along the nation's coasts to protect American air sovereignty. Less than a day after the attacks, however, the picture had changed dramatically, with dozens of armed fighters maintaining round-the-clock patrols over more than 30 American cities. In addition, this greatly enhanced nationwide air defense posture, code-named Operation Noble Eagle, maintained an undisclosed number of armed fighters on alert at bases throughout the United States.

Preparing for War

It soon became clear that the U.S. response to the September 11 attacks would consist not just of combat operations but also of diplomacy, coalition-building, heightened intelligence activities, immigration control, enhanced homeland defense, extensive police work, and efforts to identify and embargo al Qaeda's sources of funding. Yet there was no doubt that the initial round would be an air-dominated military offensive to take down bin Laden's al Qaeda network in Afghanistan and that country's ruling Taliban theocracy, which had provided the terrorists safe haven. Within just a day of the attacks, the Bush administration made determined moves to assemble a broad-based international coalition before committing the nation to

any military action. For its part, the North Atlantic Council invoked the mutual defense clause in the charter of the North Atlantic Treaty Organization (NATO) for the first time in the alliance's 52-year history. The administration also garnered the support of numerous other countries around the world, including Russia, and pressured Pakistan to provide whatever intelligence and logistical support might be needed to help capture or kill al Qaeda's leaders and assist the United States in retaliating against any countries that may have supported them. Shortly thereafter, Pakistan agreed to open its airspace for the transit of any U.S. air attacks against the Taliban and al Qaeda and to halt the flow of fuel and supplies from Pakistan to Afghanistan.

On the domestic front, Congress promptly granted the administration a \$40 billion emergency funding package for conducting counterterrorist operations, with a provision for an immediate release of \$10 billion for the White House to use at its discretion. Congress also moved quickly to empower President Bush to take action against the terrorists by issuing a joint resolution that released the White House from any obligation to seek a formal declaration of war in the course of pursuing its options. Within days of the terrorist attacks, the Senate passed a 98–0 resolution authorizing the use of all necessary and appropriate force. Shortly thereafter, the House of Representatives passed a similar resolution by a vote of 420–1.

Next, the administration began building a strategy for carrying out a phased response to the terrorist attacks, starting with a war focused on al Qaeda and the Taliban in Afghanistan but eventually reaching beyond to terrorist movements worldwide with the global reach to harm the United States. At the time of the September 11 attacks, there was no plan in existence for U.S. military action in Afghanistan. Yet in the span of just three weeks, the government pulled together an effective coalition, crafted the beginnings of a serviceable strategy, moved needed forces and materiel to the region, made alliances with indigenous anti-Taliban elements in Afghanistan, laid the groundwork for an acceptable target-approval process, and prepared to conduct concurrent humanitarian relief operations.

To facilitate the impending war, the Bush administration sought and gained the approval of the Saudi government for the use of the

Combined Air Operations Center (CAOC) maintained by the air component of U.S. Central Command (CENTCOM) at Prince Sultan Air Base in Saudi Arabia. Support also was gained from several former Soviet republics in Central Asia for the temporary basing of U.S. aircraft and military personnel slated to conduct combat operations against Afghanistan. A key element of this planning was a determination by the administration to avoid causing any harm to Afghan noncombatants so as to avoid further inflaming anti-American passions throughout the Islamic world. The war plan that emerged accordingly sought to rely to the fullest extent possible on precision-guided weapons.

The United States Strikes Back

On October 7, 2001, CENTCOM commenced Operation Enduring Freedom, a joint and combined war against al Qaeda and the Taliban in Afghanistan. The campaign began at night with strikes against 31 targets, including early warning radars, ground forces, command-and-control facilities, al Qaeda infrastructure, and Taliban airfields. Attacks on the second day also began during the hours of darkness but continued this time into daylight, indicating a determination by CENTCOM that the Taliban's air defenses had been largely negated. During the fifth consecutive day of bombing, mountain cave complexes harboring al Qaeda combatants and equipment were attacked for the first time. After the tenth day, the target list was greatly expanded and discrete engagement zones were established throughout the country to facilitate aerial attacks against Taliban and al Qaeda forces. Although these engagement zones were similar to the kill boxes that had been set up during Operation Desert Storm a decade earlier, they did not allow allied aircrews to attack anything that moved inside them without prior CENTCOM approval because of persistent uncertainties regarding the location of friendly Afghan opposition forces and allied special operations forces (SOF) in close proximity to known or suspected enemy positions. Nevertheless, their

establishment did indicate an impending move away from preplanned targets toward pop-up targets of opportunity as they emerged.

The successful insertion of a small number of U.S. SOF teams into Afghanistan after 11 days of bombing signaled the onset of a new use of air power in joint warfare, in which Air Force terminal attack controllers working with SOF spotters positioned forward within line of sight of enemy force concentrations directed precision air attacks against enemy ground troops who were not in direct contact with friendly forces. In this phase of operations, airborne forward air controllers also identified enemy targets and cleared other aircraft to attack them. Thanks to the reduced enemy air defense threat, U.S. aircraft were now cleared to descend to lower altitudes as necessary to attack any emerging targets that were observed to be on the move.

By late October, however, a sense of frustration had begun to settle in among some observers as the war's level of effort averaged only around 63 strike sorties a day, with continuing attacks against fixed enemy military assets and relatively little apparent damage being done to Taliban troop strength. In light of this seeming lack of progress, a growing number of critics began predicting either a quagmire or an outright U.S. failure. These voices of concern naturally put the Bush administration on the defensive in its effort to refute allegations that the campaign had bogged down.

In fairness to the administration, there remained a lack of much actionable intelligence on elusive targets at that still-early stage of the war, and the nearness of friendly indigenous Afghan Northern Alliance forces to Taliban front lines created a constant danger that those forces might get hit by errant bombs. Moreover, although the opportunity for U.S. cooperation with the Northern Alliance had been available and ready to be exploited in principle from the very start of the campaign, CENTCOM was slow to insert SOF teams into Afghanistan to empower the opposition groups because of persistent bad weather. Even after the tenth day of U.S. combat involvement, the latest of CENTCOM's several efforts to insert the first SOF unit had to be aborted at the last minute because of conditions that prohibited safe helicopter operations.

Finally, on October 19, two Air Force Special Operations Command (AFSOC) MH-53J Pave Low helicopters successfully delivered Army Special Forces Operational Detachment Alpha 555 (more commonly known as A-Team 555) to a landing zone in Afghanistan's Shamali plains, which had been marked by a Central Intelligence Agency (CIA) team that was already in place and awaiting its military compatriots. These Army SOF troops, with their attached Air Force terminal attack controllers, would provide the first eyes on target for enabling what eventually became a remarkably successful U.S. exercise in air-ground cooperation.

The Rout of the Taliban

On October 21, Northern Alliance forces began marshaling for an attack on Mazar-i-Sharif, with a view toward eventually moving from there on to Kabul. Two days later, the most intense ground fighting since the start of Enduring Freedom occurred as Northern Alliance and Taliban forces exchanged heavy fire. The Northern Alliance aimed at hastening the Taliban's collapse by striking from all sides. U.S. cooperation enabled the application of opposition-group pressure in the north, while U.S. SOF units sought to organize similar pressure in the south against Kandahar.

The Northern Alliance's full-up offensive commenced on October 28. That day saw ramped-up U.S. air attacks against Taliban artillery positions that were threatening a Northern Alliance supply line. With the intensified use of B-1Bs and B-52s against the Taliban front lines, Northern Alliance leaders who once criticized the bombing now came to praise it and to draw increased hopes of achieving success. The A-Teams were now calling in heavy air attacks against the Taliban's two circles of defensive trenches around Mazar-i-Sharif. Enemy supply lines and communications were cut, hundreds of enemy vehicles and bunkers were destroyed, and thousands of Taliban fighters were either captured or killed or else escaped.

On November 9, Northern Alliance forces took Mazar-i-Sharif. That success was the first tangible victory in Enduring Freedom. Two

days later, the Northern Alliance surged against Taliban forces defending Kabul. Then, on November 13, Northern Alliance forces captured Kabul as Taliban forces beat a retreat, creating a strategic breakthrough that silenced critics of the operation who, for a time, had voiced concerns about an impending quagmire.

The capture of Mazar-i-Sharif and Kabul by the Northern Alliance, enabled decisively by American air power working in close harmony with allied SOF teams, was a major breakthrough. Thanks to the rapid accumulation of advances that had been achieved in such short order, the resistance now controlled nearly three-quarters of the country, as contrasted with only 10 percent in the northernmost reaches before the start of the campaign just a few weeks before. With the fall of Mazar-i-Sharif and Kabul, the Taliban suffered a major loss, and al Qaeda forces in Afghanistan were clearly on the run. Although a substantial number of al Qaeda and Taliban combatants succeeded in eluding the campaign's effects, the interim victories that culminated in the fall of Mazar-i-Sharif and Kabul nonetheless foretold the successful conclusion of the hardest fighting by allied forces less than a month later.

On December 1, air attacks on Kandahar intensified as opposition forces moved to within 10 miles of that last remaining Taliban holdout and a loose encirclement progressively became a siege. By that point, the United States had accomplished much of what it had sought by way of campaign goals. The Taliban were in flight; the cities of Mazar-i-Sharif, Herat, and Kabul were in the hands of opposition forces and calm; al Qaeda's terrorist infrastructure in Afghanistan had been all but destroyed or dispersed; and a post-Taliban interim Afghan leadership was being formed.

With the fall of Kandahar 63 days into the campaign, CENTCOM's focus shifted to tracking down bin Laden and his top lieutenants, stabilizing post-Taliban Afghanistan, and addressing humanitarian concerns in the war-ravaged country. Toward that end, the primary thrust of combat operations now shifted to the mountain cave complex at Tora Bora to which many Taliban and al Qaeda combatants were believed to have fled.

The bombing of the Tora Bora mountains continued nonstop every day for three weeks, after which it was suspended for a brief period to allow opposition-group formations to advance on the caves in search of al Qaeda fugitives. Those formations moved in on three sides, forcing the most hard-core remnants of al Qaeda to seek refuge in the higher mountains of eastern Afghanistan. For a time, bin Laden was known to have been in the area. In the end, however, his trail went cold and he succeeded in getting away.

On December 18, for the first time since the war began on October 7, the bombing came to a halt. Although hundreds of Taliban and al Qaeda fugitives managed to escape across the border into Pakistan, the Taliban regime was brought down only 102 days after the terrorist attacks of September 11. By late February 2002, Operation Enduring Freedom had largely devolved from a high-technology air war into a domestic police action as the United States now found itself striving to pacify feuding warlords, protect the embryonic interim Afghan government, and ensure adequate force protection for the 4,000 U.S. troops who were now in the country.

Operation Anaconda

After two months of relative quiescence following the fall of the Taliban and the installation of the interim Karzai government, U.S. ground troops met their fiercest test of Enduring Freedom up to that point in an initiative that came to be known as Operation Anaconda. This push by the Army into the high mountains of Afghanistan was the first and only large-scale combat involvement by conventional U.S. ground forces in Enduring Freedom to date.

The nearby Shah-i-Kot valley had been under surveillance by CENTCOM ever since early January 2002, prompted by reports that Taliban and foreign al Qaeda combatants were regrouping there in an area near the town of Gardez. Over time, enemy forces continued to flow into the area, to a point where it appeared as though they might begin to pose a serious threat to the still-fragile Karzai government. At least two considerations underlay the Anaconda initiative: (1) A desire on CENTCOM's part to preempt the growing concentration of al Qaeda fighters who were assembling and reequipping themselves

in the Shah-i-Kot hinterland; and (2) mounting intelligence indicating a conviction by al Qaeda leaders that U.S. forces would not pursue them into the mountains and take them on in winter weather.

Unlike all previous U.S. ground combat activities to date, Anaconda was planned almost from the start to be conventionally led and SOF-supported. It represented the first instance of U.S. willingness to put a substantial number of American troops in harm's way since Operation Desert Storm more than a decade before. In all, some 200 SOF combatants, 800 to 1,000 indigenous Afghan fighters, and more than 1,400 conventional U.S. Army troops were assigned to participate in the operation. It envisaged a three-day offensive whose declared mission was to capture or kill any al Qaeda and Taliban fighters who might be encountered in the area.

The plan for Anaconda fell apart at the seams almost from the very start, thanks to heavy enemy resistance and the lack of adequate U.S. fire support to counter it. Unexpectedly fierce fighting broke out during an attempted predawn insertion of SOF combatants into the high Shah-i-Kot mountains on the operation's third day when those combatants encountered a sudden hail of preemptive large-caliber machine gun, rocket-propelled grenade, and mortar fire from determined al Qaeda fighters who were holed up in the caves there. As a result, fixed-wing air power, which had been all but excluded from the initial Anaconda planning, had to be summoned as an emergency measure of last resort when events on the ground seemed headed for disaster. That air support would prove pivotal in producing what ultimately was a successful, if costly, allied outcome. In all, eight U.S. military personnel lost their lives to hostile fire and more than 50 were wounded, some severely, during the initial conduct of combat operations.

Once CENTCOM's air component was fully engaged in the operation, the CAOC quickly provided additional assets to support the still-embattled U.S. ground troops. By the end of the first week, as allied air attacks became more consistent and sustained, al Qaeda resistance began tapering off and friendly forces seized control of ever more terrain. That said, what was initially expected to last only 72 hours went on for two weeks. In the end, it took the eleventh-hour

intervention of CENTCOM's air component in a major way to correct for Anaconda's initial planning errors once the going got unexpectedly rough.

Viewed in hindsight, those who planned and initiated Operation Anaconda failed to make the most of the potential synergy of air, space, and land power that was available to them in principle. Once the air component became fully engaged, the concentration of aircraft over the embattled area required unusually close coordination among the many participants and controlling elements because of the failure of Anaconda's planners to see to needed aircraft deconfliction arrangements in adequate time. That requirement often limited how quickly fixed-wing air power could respond to sudden calls for fire support. Aircraft run-in headings had to be restricted because of the closely confined and congested battlespace, with multiple stacks of aircraft operating and dropping bombs simultaneously through the same block of air and with friendly ground forces in close proximity to the enemy, both of which dictated specific attack headings to avoid fratricide from weapons effects. Moreover, many targets were cave entrances situated on steep slopes, which limited the available run-in headings for effectively delivering ordnance. Fortunately, despite these manifold complications, not a single midair collision or other aircraft mishap occurred at any time during Anaconda, and no further U.S. loss of life to enemy action was incurred.

Distinctive Achievements

Operation Enduring Freedom saw a further improvement of some important force-employment trends that were first set in motion during the Gulf War a decade earlier. For example, precision weapons accounted for only 9 percent of the munitions expended during Desert Storm, whereas they totaled 29 percent in Allied Force and nearly 70 percent in Enduring Freedom. As for aerial warfare "firsts," the war saw the first combat employment of the Global Hawk high-altitude unmanned aerial vehicle (UAV), as well as the first operational use of Predator UAVs armed with Hellfire missiles. It also saw the first combat use of the precision-guided Joint Direct Attack Mu-

dition (JDAM) by the B-1 and B-52. (During Allied Force, only the B-2 had been configured to deliver that satellite-aided weapon.)

Moreover, for the first time in the history of modern war, Enduring Freedom was conducted under an overarching intelligence, surveillance, and reconnaissance (ISR) umbrella that stared down constantly and relentlessly in search of enemy activity. This mix of mutually supporting sensors enabled greatly increased ISR input over that available during earlier conflicts. It also permitted a degree of ISR fusion that distinguished Enduring Freedom from all previous air operations.

Perhaps the greatest tactical innovation of the war was the highly improvised integration of Air Force terminal attack controllers with Army Special Forces A-Teams and Navy Sea–Air–Land (SEAL) commando units to produce a SOF-centric application of precision air power against emerging targets that added up to a new way of war for the United States. SOF teams performed three major missions throughout the campaign. First, they marshaled and directed the unorganized forces of the Northern Alliance. Second, they built small armies out of the Pashtun tribesmen in the south. Third, they provided invaluable eyes-on-target identification to U.S. aircrews for conducting precision air attacks.

Far more than during the earlier case of Operation Allied Force, when NATO aircrews toward the end received targeting information on several occasions indirectly from Kosovo Liberation Army ground spotters, Operation Enduring Freedom showed that air power can be more effective in many circumstances if it is teamed not only with forward ground spotters but also with friendly ground forces sufficiently robust to flush out and concentrate enemy forces. What was demonstrated in Afghanistan on repeated occasion, especially early on, was not classic close air support or air interdiction but rather SOF-enabled precision air attacks against enemy ground forces with no friendly ground forces in direct contact. This novel use of air power enabled ground support to air-delivered firepower, yet at the operational rather than tactical level of war. It also made for a doctrinal gray area that blurred the line between “supporting” and “supported” and that featured SOF teams finding, identifying, and track-

ing targets for an implicit *air* scheme of maneuver in which there was no concurrent friendly *ground* scheme of maneuver under way. Operations were generally so fluid that “supporting” and “supported” command relationships flowed back and forth seamlessly.

The two most pivotal ingredients that made this achievement possible were long-range precision air power and uncommonly good real-time tactical intelligence provided by mobile SOF teams able to operate, in effect, as human ISR sensors. Units from different services with little or no prior joint warfighting experience performed under fire as though they had trained and operated together for years. In all, Enduring Freedom was uniquely emblematic of the quality and resourcefulness of today's American military personnel.

Finally, Operation Enduring Freedom was more than just a SOF and JDAM story. It also featured a mobility component that was no less indispensable for ensuring the war's success. Until a land bridge from Uzbekistan was opened in late November, everything the military used, including fuel, had to be airlifted into Afghanistan because the country was landlocked. The successful execution of the lift portion of Enduring Freedom spotlighted the value of logistics as a weapon system, as well as the fact that effects-based operations entail materiel delivery as well as bombing.

Problems in Execution

To be sure, the conduct of Enduring Freedom was not without inefficiencies and friction. To begin with, almost from the war's opening moments, a tense relationship emerged between the air component commander's operation in the CAOC in Saudi Arabia and the CENTCOM staff in Tampa, Florida. A variety of factors occasioned this situation, not the least being the campaign's uniquely exacting rules of engagement overlaid on an unclear and rapidly changing strategy—the latter owing to the fact that initial planning for Enduring Freedom was essentially a pick-up game in the immediate aftermath of the September 11 attacks. The most important causal factor, however, was CENTCOM's resort to a less-than-ideal initial template for conducting combat operations in Afghanistan.

Adopting a familiar repertoire to which it had been habituated for 10 years, CENTCOM chose to conduct Enduring Freedom using roughly the same procedures as those of the very different Operation Southern Watch (OSW), the enforcement of the no-fly zone over southern Iraq. In contrast, Enduring Freedom was to be a full-fledged war against the Taliban and al Qaeda, in which the goals and imperatives, one would have thought, would naturally be driven by the demands of a fight to the finish rather than those of a UN policing action. It was entirely predictable that problems would develop once CENTCOM opted instead to impose onto the Afghan war an OSW-like operations flow, with the latter's strict interpretation of assigned rules of engagement and stringent special instructions and target vetting procedures, all dominated by heavy senior leadership involvement that exercised not only highly centralized control but also centralized execution.

There also were different schools of thought within CENTCOM with respect to how best to conduct the war. Those in the CAOC during the war's early days were convinced that they were the best equipped to determine the most appropriate force employment options at the operational and tactical levels. They also felt that those at CENTCOM headquarters were animated by a land-warfare mindset that failed to appreciate what modern air power could accomplish if used to its fullest potential. By the same token, at least some key staffers at CENTCOM felt that the most senior Air Force airmen in the CAOC were overly service-centric in their thinking and were seeking, in effect, to fight their own private air war.

All of this was further aggravated by a pronounced geographic separation between CENTCOM headquarters and the CAOC, a distance that covered eight time zones. Unlike the benchmark case of Operation Desert Storm, the overall combined force commander and his air component commander were not physically collocated. Much counterproductive friction between the forward and rear components of CENTCOM ensued as a result of this substantial separation of command elements. In hindsight, one could argue that the combined force commander and his principal staffers should have deployed forward to be nearer the air component commander around

the clock. Short of that, had the air component commander been collocated with the combined force commander at CENTCOM headquarters and delegated the execution of CAOC functions to his forward-deployed CAOC director or, alternatively, had he been able to provide a senior general-officer representative at CENTCOM as his personal emissary to the combined force commander, perhaps much of the early tension that occurred between the front and rear could have been alleviated—or prevented altogether.

The greatest frustration for the CAOC's airmen, however, was the fact that target selection and the development of the Joint Integrated and Prioritized Target List were done at CENTCOM headquarters rather than in the CAOC. According to joint doctrine, the air component commander oversees a daily air tasking cycle that takes both commander's intent and assigned rules of engagement as points of departure and proceeds from there through a systematic development process beginning with strategy input, moving on to target selection, then to Master Air Attack Plan creation and dissemination, and finally to execution. Yet in the case of Enduring Freedom, a key element of this cycle was preempted by CENTCOM. As a result, the strategy-to-task process was taken out of the air component commander's hands, leaving the CAOC planning staff to be little more than mission schedulers, to all intents and purposes.

In addition, some severe inefficiencies in target approval were revealed. Sensor-to-shooter data cycle time (more commonly known as the "kill chain") in Enduring Freedom was reduced in duration from hours—or even days—often to single-digit minutes. An over-subscribed target-approval process, however, often nullified the potential benefits of that breakthrough by lengthening decision timelines, making the human factor the main source of delay in servicing time-sensitive targets. From the first night onward, the exceptional stringency of the rules of engagement caused by collateral damage concerns led to a target-approval bottleneck at CENTCOM that allowed many fleeting attack opportunities to slip away. The repeated suspected escape of enemy leaders as a result of delays in securing target approval, moreover, was a consequence not only of rules-of-engagement constraints but also of a cumbersome target-vetting proc-

ess within CENTCOM that had been fashioned after the one used in OSW, with which CENTCOM was both familiar and comfortable, instead of being tailored to meet the uniquely different and more urgent demands of the war on terror.

Many airmen complained bitterly about the seeming stranglehold imposed on their professionalism and flexibility by CENTCOM's seizure of execution authority from the air component commander and what the resultant highly centralized control and stringent rules of engagement were doing to prolong target-approval times. As for the rules themselves, they emanated from the president himself, who was determined to avoid any targeting mishap that might even remotely suggest that the campaign was an indiscriminate war against the Afghan people or Islam. That determination led to an entirely valid requirement for a minimally destructive air campaign using tactics that would not risk alienating the Afghan rank and file, further damaging an already weak Afghan infrastructure, and further inflaming anti-American sentiments elsewhere in the Arab world. These objectives were well understood and embraced by the leadership in the CAOC. Yet the latter wanted to build and execute an effects-based campaign focused on key elements of the Taliban organization rather than to follow the more classic attrition-based approach that CENTCOM headquarters was imposing.

Nevertheless, more than in any previous war, Operation Enduring Freedom saw not just centralized planning, almost uniformly acknowledged by military professionals to be highly desirable in principle, but also an insidious trend toward centralized execution that could yield highly undesirable and even irreversible consequences if not duly disciplined and managed in a timely way. The nation's greatly expanded global communications connectivity not only provided an increasingly shared operational picture at all levels but also enabled what some have called "command at a distance." A downside of the expanded ISR connectivity and available bandwidth that have evolved since Desert Storm is that at the same time they have made possible far more efficient and timely operations than ever before, they also have increasingly enabled direct senior leadership involvement in the finest details of force employment, at least in slow-paced

activities like OSW and medium-paced wars like Operation Enduring Freedom with relatively small numbers of sorties and targets to manage at any moment.

Some kinds of wars with exceptionally pronounced political sensitivities, of which Enduring Freedom was emblematic, will continue to require both stringent rules of engagement and centralized execution. However, there is an inherent tension between the imperatives of political control and those of efficient mission accomplishment that senior leaders must understand. Although the American military command-and-control network has now evolved to a point where centralized execution has become routinely possible in principle, decentralized execution remains the preeminent virtue of American military culture because it constitutes the bedrock of flexibility. Doctrine and practice must accordingly seek a way to reconcile this growing dilemma lest the recent tendency toward centralized execution as the rule rather than the exception be allowed, through operator default, to undermine one of the nation's most precious military advantages.

On Balance

In all, Operation Enduring Freedom earned far more by way of deserved accolades than demerits. Never before in modern times had the United States fought an expeditionary war so remote from its base structure. The tyranny of distance that dominated the campaign redefined the meaning of endurance in air warfare and represented an unprecedented test of American combat prowess. One B-2 sortie lasted 44.3 hours, becoming the longest air combat mission ever flown in history. It was not uncommon for fighter sorties to last 10 hours or more. The war saw the longest-range carrier-based strike operations conducted in the history of naval air warfare.

Beyond that, the United States commenced combat operations from a standing start with less than a month's time to plan and marshal forces for the impending war. The campaign saw an unprecedented reliance on SOF, in which a unique synergy flowed from the unconventional enabling of precision air power by SOF and indigenous friendly ground forces. Each force element amplified the inher-

ent leverage of the other, with SOF teams allowing air power to be effective against elusive targets and air power permitting allied SOF units to work more efficiently with indigenous Afghan opposition groups in often close-quarters land combat against Taliban and al Qaeda forces—all with a complete absence of involvement by heavy-maneuver U.S. ground forces.

With respect to tactics, techniques, and procedures, Enduring Freedom offered a laboratory for testing, in a live combat setting, some of the most significant air power advances to have taken place in more than two decades. Its dominant features were persistence of pressure on the enemy and rapidity of execution, thanks to the improved data fusion enabled by new technologies, a better-managed CAOC, more help from space, and smarter concepts of operations. Accurate and timely target information was made possible by linking the inputs of Predator and Global Hawk UAVs, the RC-135, the U-2, the E-8, and other sensor platforms around the clock. This improved connectivity enabled constant surveillance of enemy activity and contributed significantly to shortening the kill chain. Predator and Global Hawk offered a major improvement in that they did not represent national assets like satellites and hence bore no requirement for the CAOC to request tasking. The resultant capability was effective in part because UAVs can now remain on station for a long time, enabling the elusive goal of instantaneous attack by finding a target, matching it with a weapon, shooting the weapon, and observing the resultant effects.

If there was anything “transformational” about the way Enduring Freedom was conducted, it was the dominance of fused information over platforms and munitions as the principal enabler of the campaign’s success in the end. That new dynamic made possible all other major aspects of the war, including the integration of SOF with precision-strike air power, the minimization of target-location error, the avoidance of collateral damage, and command from the rear—both for better and for worse. Thanks to real-time imagery and increased communications connectivity, the kill chain was shorter than ever, and target-attack accuracy was truly phenomenal. Throughout Enduring Freedom, persistent ISR and precision attack

gave CENTCOM the ability to deny the enemy a sanctuary both day and night. Such network-centric operations are now the cutting edge of an ongoing paradigm shift in American combat style that may be of greater potential moment than was the introduction of the tank at the beginning of the 20th century.

The Enduring Freedom experience also pointed up some new facts of life about likely future American combat involvement. First, it showed that positive target identification and avoiding civilian casualties have become permanent features of the emerging American way of war. Second, it suggested that senior leadership will continue to guard its authority to make strike approval decisions for target attacks that entail a high risk of inflicting civilian casualties. Approval time and time-sensitive target timelines will increasingly be determined by prevailing rules of engagement and target-approval criteria. Accordingly, airmen must get away from the "one size fits all" approach to targeting doctrine. Because quick-response attack against emerging targets has become the new reality, airmen need to create new concepts of operations to accommodate it. They also need to begin forging new ways for managing the downside effects of improved information fusion, including, most notably, such issues as the trend toward centralized execution.