

By Rebecca Grant

WO F-117s raced toward a target on the outskirts of Baghdad on the night of March 19, 2003, toward their target: a compound believed to be the hideout of Iraqi dictator Saddam Hussein. It was Night 1 of Operation Iraqi Freedom.

As the F-117s headed for Baghdad, ground forces moved out of cantonment areas. Above them a rolling wave of strike

aircraft began their first OIF sorties. "This will be a campaign unlike any in history," declared Army Gen. Tommy R. Franks, head of US Central Command at the time.

Coalition forces soon swept into the Iraqi capital. A mob toppled a renowned statue of Saddam just three weeks later. The dictator himself had gone to ground—literally. He was captured in December

2003 at the bottom of a spider hole. But it was not until eight years later that the last American forces withdrew from Iraq, in December 2011.

The Air Force changed significantly over the course of OIF. The operation began as a swift air campaign. By the time it ended, new squadrons of remotely piloted aircraft, light surveillance and communications platforms, and tactical



airlift were on the ramp to respond to the requirements of a grinding counterinsurgency fight. In fact, an MQ-1 Predator RPA beamed back video of the final US convoy leaving Iraq.

In the process, the Air Force also refined and built a combat tested cadre of battlefield airmen.

The lightning-fast initial campaign had its share of major achievements for USAF. One was pressing forward the attack during a blinding sandstorm, sweeping Iraq from March 25 to March 27.

"We were watching these guys with the Joint STARS and the ground moving target indicator radars coming out of Baghdad trying to reinforce the Medina Division," said Gen. John P. Jumper, who was then USAF Chief of Staff. B-1s, B-2s, and B-52s were "up there pounding the heck out of them."

One controller working with the US Army's 3rd Squadron, 7th Cavalry Regiment, called in a B-1 with Joint Direct Attack Munitions when his unit was heavily engaged southeast of Najaf. It was the first time since Vietnam that ground elements were inching forward

in virtually constant contact with the enemy, Jumper recalled. The operation was a use of sophisticated airpower at its best and it delivered big time. Whole groups of Iraqi forces "just got up and walked away," Jumper assessed.

At the beginning of April 2003, advancing land forces reported light resistance and large amounts of destroyed equipment. "As far as large fighting formations, we haven't seen any of that lately," observed the combined force air component commander Lt. Gen. T. Michael Moseley on April 5, 2003. More pressure came from the northern front opened by C-17s dropping the 173rd Airborne Brigade into a box canyon at Bashur, in northern Iraq.

Airmen for a New Battle

The path into Baghdad was prepared. Moseley covered coalition ground forces with multiple layers of forward air controllers and fighter and attack aircraft stacked near the city. He described it as "a mix of assets from the Marine Corps, Navy, UK, Australia, and [the] US Air Force." They carried bombs of

Left: USAF pararescuemen are hoisted into an HH-60 Pave Hawk outside Baghdad in 2009 during a proficiency exercise. Below: A B-2 takes off from Diego Garcia for a bombing mission over Iraq. During the lightning fast initial air operation, B-1s, B-2s, and B-52s pounded Iraqi ground forces mercilessly.





Security forces airmen in Humvees conduct patrols in an Iraqi village in 2009. The Air Force took over security responsibility from the Army and patrolled constantly around Balad AB, Iraq.

all types and guns. Marine controllers called specifically for strafing during a firefight on April 9. An A-10 pilot from the Michigan Air National Guard put down some 600 rounds in response, from the Warthog's formidable 30 mm cannon.

By May, the US declared major combat operations over. But the changes to USAF airpower were just beginning.

After the quick opening phase, OIF introduced airmen to a dispersed battlespace with a range of new dangers and challenges. It began with a sinking feeling that the end of major combat operations had not ended the dangers or achieved all objectives.

"I see us certainly dealing with Iraq for quite a period of time," Jumper cautioned in July 2003. An airman deployed from Air Force Space Command to the former Iraqi mega-base at Talil wrote home that same month. "Make no mistake, the 'war' is still going on here, as we are losing Army folks daily," wrote then-Capt. Debbie Horne.

The direction became clear soon enough. Stabilizing Iraq would take far more than the 30,000 to 50,000 troops first predicted. The real number was closer

to 140,000 troops on average, and US ground forces peaked at 168,000 during the surge in late 2007.

What these forces needed from USAF was different than anticipated. Ground troops held major cities even as insurgent resistance grew. But they also fanned out across Iraq on stabilization missions,

which subjected them to sporadic but lethal attack from multiple directions. The land forces needed the air component for four broad missions: supply, surveillance, strike, and safety.

Airlift tempo was one of the first measures. Both strategic and theater tactical lift continued at a high tempo.



"I still have a requirement for 64 C-130s in the theater at a 2.0 crew ratio," said Air Force Gen. John W. Handy, head of US Transportation Command in 2004.

Aircrews were busy and occupied with avoiding threats, too. "As we fly around, we routinely are shot at with MANPADS [man-portable air defense systems], rockets, AAA, small arms," Handy said of airlift across Iraq.

Ground Commander Skills

USAF coped by leaning on Air Guard and Reserve airmen and aircraft and then by purchasing more C-130Js. Still, ground forces called for more theater lift responsive to direct tasking. The answer: the C-27J Spartan. By the time the Iraq war ended, USAF had restocked its tactical airlift fleet.

Armed overwatch and low collateral damage strikes became USAF's new way of doing business. Two battles at Fallujah in 2004 marked the change. In the spring, US ground forces found themselves pinned down. In response, the air component diagrammed the city block by block for the second battle of Fallujah in November 2004.

New technologies, such as the Remotely Operated Video Enhanced Receiver (ROVER) stepped in. Precise weapons and good target data allowed a lighter touch. "A single 500-pound [munition] or less is currently the weapon of choice, and the 100-pound warhead of a Hellfire missile fired from a Predator is often enough to do the job," Air Force Maj. Gen. Allen G. Peck said in a 2006



Left: An F-16 conducts close air support operations over Iraq in 2009. Above: TSgt. Mike Cmelik (sitting) and SrA. Logan Abrams, both joint terminal attack controllers, communicate with a B-1 pilot during a bombing mission.

interview with *Aviation International News*. At the time, Peck ran the Combined Air Operations Center (CAOC) at Al Udeid AB, Oatar.

Part of the trick was building the skill of ground commanders in tasking air. The mission that nabbed insurgent provocateur Abu Musab al-Zarqawi in 2006 marked a new level of cooperation. "We were really proud of the ground commander in the Zarqawi raid who thought spherically about what assets were available to help him complete his mission and brought in the F-16s when he needed to," said then-Air Force Secretary Michael W. Wynne.

The Zarqawi incident pointed out that the armed overwatch mission relied at least as much on intelligence, surveillance, and reconnaissance as on strike. For in Iraq, ISR grew in importance in USAF's portfolio of missions.

Numbers tell the tale. As OIF began, USAF fighters logged 8,828 sorties from March 19 to April 18, 2003. ISR aircraft—including everything from AWACS to Predator—flew just 452 missions in that same time frame.

Then the balance shifted. The first cause was simply the need to watch over and supply communications relays for





An F-15E takes on fuel during a mission over Iraq. After the end of "major combat operations" in May 2003, armed overwatch and low collateral damage missions became USAF's priorities.

ground forces unexpectedly in remote locations. Convoys on roads were especially vulnerable. "We leveraged all kinds of reconnaissance assets from UAVs to aircraft to fixed wing aircraft, rotary wing aircraft, patrolling, and other devices," recalled then-Army Vice Chief of Staff Gen. Richard A. Cody.

The years of Iraqi Freedom also transformed the utilization of unmanned vehicles. When the Air Force went to war in March 2003, it did so with a fleet of just eight Predators and three test-model RQ-4 Global Hawks. Of those, only one Global Hawk was ready for action.

By the end of the war, this single Global Hawk tallied up 3,655 images using all sensors. More Global Hawks were built and deployed, but the huge surge came in the inventory of a much lighter and slower aircraft: the Predator. The rise of the Predator and later the MQ-9 Reaper drastically shifted USAF investment and employment priorities in its fleet of aircraft.

"The Reaper represents a significant evolution in UAV technology and employment," Moseley said in 2006. "We've moved from using UAVs primarily in intelligence, surveillance, and reconnaissance roles before Operation Iraqi Freedom, to a true hunter-killer role with the Reaper."

The information needs of the Iraq war compelled the Air Force to purchase remotely piloted aircraft at a rapid clip. USAF had eight MQ-9 Reapers in 2006. By the end of 2010, there were 54. Predators peaked that same year at a total inventory of 174.

Air-Ground Integration

Managing the information flow also incentivized the Air Force to restructure its air operations centers. The new template was the Falconer Air Operations Center capable of serving in many theaters. The thrust, however, was for better integration of the CAOC as a weapon system, actively engaging targets.

Then there was the problem of translating the view from the air to the view on the ground.

The USAF of 2003 was well-equipped to provide interdiction and close air



support in an orchestrated, joint campaign. OIF made that process much more personal—and challenged airmen to rethink central beliefs about tasking lines for airpower to aid ground forces. Mid-decade, USAF increased its number of air support operations centers to 10 to align better with the Army.

From the beginning, Moseley as combined force air component commander and Jumper as USAF Chief of Staff strove to build strong and close relationships with their land force counterparts. By 2006, Moseley was Chief and deep into providing intensive assistance to the land components in Iraq. "One of our missions in a theater is to support land component activities," he explained. "How do you then support land component activities in nonlinear, distributed battlespace?"

That support recast the nature of Air Force contributions to the Iraq War from the four-star level to young airmen driving Army trucks. Thousands of airmen learned what it was really like to be in the Army—by filling in for soldiers during "in lieu of" assignments that were eventually renamed joint



expeditionary taskings. "More and more Air Force are doing Army jobs," said SMSgt. Matt Rossoni, according to a 2006 Associated Press article. "It's nothing bad about the Army. They're just tapped out."

Helping out ground forces similarly generated the USAF focus on battlefield airmen. The Air Force has always had advance parties, contingency response personnel, and ground force liaisons. However, the number of ground forces and their dispersed positions required an ongoing level of backing different from earlier wars. "The battlefield airmen

classically are combat controllers, terminal controllers, combat weather, combat coms, pararescue," as Moseley listed them.

The nonlinear battlespace of OIF simply demanded more battlefield airmen-so many, in fact, that the requirement seeped from deployments to basic training, which began to add realistic ground-combat elements for trainees.

In the end, the war reshaped many basic Air Force procedures. "My desire is from Day 1 in basic military training all the way through to better prepare

people for this long war that we're in," Moseley explained in 2006.

Another way OIF changed the Air Force was bringing air base ground defense to the forefront. Balad AB, Iraq, soon became a hub of USAF operations in that country, due to its invaluable 11,000-foot runways just 50 miles north of Baghdad. Adjacent to the airfield was the Army's Logistics Support Area Anaconda, home to 13,000 personnel. Balad, unfortunately, sat in an area dominated by Sunni Iraqis hostile to the provisional government. Insurgents quickly picked out Balad as a prime target for hit-and-run mortar attacks and blasts of small-arms fire. One of the first incidents in July 2003 wounded 16 US soldiers, two severely.

Some mortars landed randomly while some targeted the flight line and chow hall areas. For airmen hard at work at the base, the mortars were a constant hazard. One such attack came in April 2004. A1C Antoine J. Holt of the 603rd Air Control Squadron was killed in an attack, while SrA. Scott Palomino had to have his left leg amputated below the knee.

"You realize there's absolutely nothing you can do about it, so you get a thick skin and go about your business," flight safety chief Capt. Kristen Snow told Airman Magazine in September 2004. Airmen kept up refueling and maintenance for about 220 aircraft per week despite the attacks.

Two frames from a video showing a bomb dropped from a USAF F-16 that killed terrorist leader Abu Musab al-Zarqawi in 2006.







TSgt. Andrea Patterson, a battlefield weatherman assigned to Forward Operating Base Kalsu, south of Baghdad, performs maintenance on a tactical meteorological operating system.

Responsibility for base defense lay with USAF security forces. By the fall of 2004, it was clear to them something had to be done. USAF's security forces put together a sweep operation outside the wire and named it Desert Safeside. Briefers "emphasized the fact that it was the first time the Air Force was going off base in an offensive mission," recalled Amn. Aaron Szulborski, a security forces airman.

The Air Force took over from the Army and patrolled constantly outside Balad during Safeside. The mission was to disrupt logistics for the sporadic attacks by finding locations where mortar parts or missiles were stored, for example. The airmen became a frequent presence in nearby villages and encountered the mix of insurgent violence that became a deadly hallmark of OIF: improvised explosive devices and village patrols.

"It was weird because the Iraqi people were not fazed. Mortars were going off and the kids were still playing in the streets," recalled Szulborski in a 2006 interview.

The security forces teams often included females. In fact, one veteran of the patrols, SrA. Polly-Jan Bobseine, was recognized with Air Combat Command's Airman of the Year award

for her performance in Safeside. Army security specialists at first suggested USAF leave female security forces back on the base while patrols took place outside the wire. Air Force special forces leaders said no. "They were trained and hardened just like the guys were," said MSgt. Paul J. Schaaf II of the 823rd Security Forces Squadron.

The Iraq war vaulted Air Force Special Operations Command to new levels of size and responsibility as overall spending on special operations forces grew. "We are going through a growth spurt and we're happy about that," Lt. Gen. Michael W. Wooley noted in May 2007. Special operators were deployed in multiple locations at the time, including Afghanistan, yet without the driving force of the Iraq war, it would have been hard to imagine the explosive growth in the mission area.

Active Duty and civilian AFSOC personnel numbers grew from 12,195 in 2001 to a peak of 19,973 by 2005. In October 2007, the air commandos took over Cannon AFB, N.M., which lost its ACC mission during the 2005 base realignment round, to handle the expansion.

For several years, AFSOC was also the beneficiary of combat replacement aircraft such as specialized C-130Js under the terms of war supplemental bills approved by Congress. AFSOC also became operator of its own Predator squadron, the 3rd SOS. "We have a requirement in special operations for about 30 orbits in the AOR [area of operations] right now. We're having a hard time meeting half of that," Wooley said in mid-2007. Afghanistan was a driver too, but again, it was the far-flung Iraq commitments that opened the door.

In May 2009, Air Force Special Operations Command activated the 33rd SOS as an MQ-9 Reaper unit. Depending on how the RPAs were counted, AFSOC grew from about 70 fixed wing aircraft in 2003 to well over a hundred publicly listed aircraft in 2010.

But the marquee moment was initial operational capability for the CV-22 Osprey in 2009. The controversial tilt-rotor may have been born out of the Iranian hostage rescue debacle, but it was the Iraq war that locked in its role for the Air Force. Not one V-22 was in operational status when OIF began. By late 2010, as the war wound down, AFSOC listed 16 CV-22s with more to come.

Connectivity, Defined

Iraqi Freedom intersected with the beginnings of a tactical information revolution. The opening days of OIF in 2003 were probably the last major campaign to take place in a world without social media. The Air Force of



In the field, cyber connectivity was a necessity, not a luxury. An Air Force weather team inserted early into Baghdad Airport to support the land component slept on the taxiway with no water for hygiene and only MREs to eat. But, wrote Capt. Bruce Stansburyin USAF's *Observer* magazine, they boasted "the full gamut: STU-III, tactical telephone, SIPRnet, NIPRnet, Iridium, and more." Their state-of-the-art digital network ran on their own generators.

Denying cyber links within Iraq was just as important. Coalition airstrikes knocked out a Cisco switch providing Internet access for Baghdad residents.

Airmen know flexibility will always be demanded of them. As for lasting change, some is embedded in USAF doctrine. In late 2011, the LeMay Center for Doctrine Development and Education at Maxwell AFB, Ala., released a new capstone AFDD 1. It redefined airpower as "the ability to project military power or influence through the control and exploitation of air, space, and cyberspace to achieve strategic, operational, or tactical objectives."

USAF Maj. Gen. Thomas K. Andersen, then LeMay Center commander, attributed much of the change directly to Iraq. "You can see a lot has evolved from the present conflict in the Middle East," Andersen said of the revised doctrine. "It shows some flexibility and shows some of the responsiveness of how we present forces to the joint fighting arena."

The Air Force has now essentially closed the book on its operations in Iraq, although USAF airmen will continue

US soldiers board a C-17 at Sather AB, Iraq, in preparation for a flight back to the US during the troop drawdown in July 2010. Airlift was a dangerous mission during Operation Iraqi Freedom—crews were often attacked by insurgents using MANPADS, rockets, and small-arms fire.

2003 was already wired and no stranger to the Secure Internet Protocol Router Network (SIPRnet) chat as a form of military communications. "You don't go to war without SIPRnet," briefed retired USAF Lt. Gen. Ervin J. Rokke, a former assistant chief of staff for intelligence, to a conclave of top USAF leaders in 1999 after the Kosovo war. By 2003, no such briefing was necessary.

However, when the war began there was no Facebook or Twitter. Texting was just taking off. BlackBerry devices were in the hands of top echelons but the days of dispersed iPhones and Android connectivity were undreamt of. The effect cannot be easily measured in force structure numbers or sorties flown.

Yet the reach of tactical cyberspace became a new feature of OIF both in counterinsurgency work and routine operations.

"I consider this a major improvement for critical data to be shared in the course of an operation," said Jumper.

At the CAOC, battle managers watched screens with a cyber-dependent, real-time common operational picture. Blue Force tracker generated a common operational picture of ground as well as air forces. For those with a NIPRnet account and a terminal, cyberspace access on duty also permitted e-mail access back home.

to mentor the Iraqi Air Force. The war was extraordinarily expensive, and it is far from certain how the long-term US-Iraqi relationship will pan out. But the war did depose a brutal dictator, defeat the resulting insurgency, and install a new democracy.

For the Air Force, the service today is fundamentally changed in many ways from the force of 2003.

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