



Desert Triumph

By John A. Tirpak, Executive Editor

WASHINGTON, D.C., APRIL 10

Only three weeks after launching the invasion of Iraq, coalition forces found themselves in control of most of Baghdad and battling remnants of shattered Republican Guard divisions and irregulars in the city. US-led ground forces had raced 300 miles from Kuwait to the capital, their path opened up by devastating combat airpower that had shifted back and forth between fixed strategic targets and mobile enemy forces in the field.

On April 9, US Central Command reported that Iraqi forces no longer seemed to be under any kind of central control.

With an emphasis on speed, flexibility, rapid maneuver of ground forces, surgical strikes, and information operations, Operation Iraqi Freedom was in many ways a demonstration of the “transformational” concepts and technologies championed by the Pentagon leadership.

While it’s too soon to draw definitive conclusions about what has happened in Iraq, a few of those themes were prominent:

- It now appears that relatively small but highly mobile ground forces can meet and defeat a larger, entrenched defender, provided the US first establishes and then ruthlessly exploits air and space dominance.

- Information dominance—achieved in large part by a fleet of spacecraft

and sensor aircraft roaming the battlespace at will—coupled with highly precise, real-time, informed targeting by massive numbers of aircraft, led to rapid victory on the ground.

- OIF showed that a prolonged air war as a set-piece prelude to ground action is not always necessary and that air and space power can indeed be extremely effective in helping ground forces wage urban warfare without inflicting massive collateral damage on civilians.

- Information operations—ranging from dispersal of leaflets to computer network attack—can sharply reduce the need for kinetic weapons.

Gulf War II had all the hallmarks of an “effects-based operation”—speed, precision, and effectiveness enhanced by use of minimum force but backed by the willingness to employ massive force where warranted to mold the enemy’s perception.

In targeting, weapons and aim points were selected with an eye toward producing the desired results with the least number of steps. An attack on one target, for example, might be used to cripple others—such as striking a single pillar that holds up a whole building or a communications relay on which all others depend.

Most of the operational concepts employed in Iraq seemed to work quite well, and they did so in the

absence of any new and untried “wonder weapon,” as in past wars.

The ground force in this war was not as large as the one used in 1991 to eject Iraqi forces from Kuwait. However, attacks from the air were more numerous and more intense than those mounted in Operation Desert Storm. On March 19 (local Baghdad time), the coalition conducted preparatory attacks against about 1,400 aim points, including strategic targets in three major cities as well as attacks on air defenses, runways, suspected missile launch sites, and command and control nodes. The main attack began March 20. Yet all this was accomplished with far fewer aircraft than were deployed in Desert Storm.

Strikes in Five

Thanks to quick action on the part of the combined air operations center in Saudi Arabia, coalition aircraft would, in some cases, strike emerging targets in as few as five minutes after detection. After the fourth day of war, air attacks shifted dramatically from fixed targets to mostly moving, fielded targets, said DOD officials.

The ground force marshaled to drive Iraq from Kuwait in 1991 totaled about 500,000 American troops. The force assembled by Gen. Tommy R. Franks, Central Command commander, to take Iraq from Saddam

Hussein amounted to some 230,000 US personnel at the outset (rising to about 340,000 after three weeks). Only 125,000 of those were in Iraq itself. This ground force was arrayed against an Iraqi force initially numbering about 400,000 and ranging in skill from well-trained Special Republican Guards to untrained militia conscripted at gunpoint.

In 1991, Gen. H. Norman Schwarzkopf, the coalition commander, used six weeks of heavy airpower attacks to blast away half of the enemy's combat capability before ground forces even engaged. Franks, by contrast, launched his ground assault before his full air campaign. This was done in an attempt to achieve tactical surprise and thwart Saddam's forces before they could destroy oil wells and wreck port facilities.

Franks also decided to rush toward Baghdad, engaging Iraqi military when necessary but largely bypassing major cities along the way.

At the same time, he used airpower to destroy the infrastructure of Saddam's power in the capital. He aimed to quickly decapitate the regime and thus leave Iraqi troops with the unpalatable choice of disorganized resistance or outright surrender.

"The Iraqi military, as an organized defense in large combat formations, doesn't really exist anymore," Central Command's air chief, USAF Lt. Gen. T. Michael Moseley told reporters on April 5. "We really do have air supremacy over this country."

Scanning the "Kill Boxes"

The air element was directly responsible for a critical strategic goal—making sure the war did not spill over onto other countries. From the outset, combat aircraft were patrolling "kill boxes" in southern and western Iraq, searching for—and in some cases finding—theater ballistic missiles that could be used against Iran, Israel, Kuwait, Saudi Arabia, or Tur-

key. One F-15E crew reported definitively destroying a Scud missile launcher, a weapon expressly forbidden to Iraq under UN resolutions.

The coalition weapon of choice for targets in Baghdad was the Joint Direct Attack Munition, a munition guided by Global Positioning System satellite signals. The accuracy of the weapon was described by a bomber wing commander as "to within one bomb's length." (A 2,000-pound JDAM is about 12 feet long.) Thousands rained down on Baghdad, producing a spectacular show of force as regime headquarters and Saddam's Presidential palaces went up in clouds of smoke.

The might of modern airpower was used with devastating effect against Iraqi mechanized forces massing just ahead of the Americans on the roads to Baghdad. Flushed from their defensive positions around Baghdad to meet the approaching spearhead, Iraqi armor was spotted by Joint STARS radar aircraft and quickly chewed up



by Air Force A-10s, F-15Es, F-16s, and other coalition fighters. The preferred weapon to destroy the Republican Guard armored vehicles on the move was the A-10's fearsome 30 mm Gatling gun, which was incorporated for just such a purpose when the aircraft was designed 30 years ago. Other weapons used to pick off the Guard were the infrared-guided Maverick missile, laser guided bombs, and the Sensor Fuzed Weapon.

Rather than engaging in massive tank battles, coalition ground forces encountered mostly burning hulks on their drive north, courtesy of airpower.

Sowing Doubt, Suspicion

A major psychological campaign was also conducted, with 37 million leaflets showered down on Iraqi troops beginning more than a month in advance, in an effort to convince them they could not win and that they would be spared if they surrendered. The US also gambled that most of the Iraqi people had had enough of their leader and would welcome coalition forces as liberators. In addition, the US leadership hoped to sow doubt and suspicion within the Iraqi regime, saying that it was in touch with generals who planned to defect or surrender, always speaking of Saddam's reign in the past tense and of a successful coalition invasion as virtually a fait accompli.

Before Operation Iraqi Freedom even began, Iraqi air defenses and command and control capabilities in southern Iraq had been substantially degraded. An Air Force expedition-

ary unit commander reported that B-1B bombers had been operating over Iraq for weeks prior to "G-Day" and "A-Day," the beginning of the ground and air elements of the campaign, respectively.

Last fall, as tensions mounted, other American and British patrol airplanes, covering the northern and southern no-fly zones, pursued "vigorous" retaliations, one US general reported, against Iraqi air defenses and communications nodes when the Iraqis fired on coalition aircraft.

Having read the leaflets and seen that air defense sites that kept their radars on too long were promptly destroyed, air defense operators would only emit briefly, then break down and move to new locations, one official said.

"If they're constantly moving, they aren't a threat," he said. "We are achieving the desired effect of denying them a chance to operate. It really doesn't matter right now if we destroy them, as long as we can go wherever we want with any platform we want."

He added that Iraqi forces had fired anti-aircraft missiles but nearly all "were unguided."

The start of the action was characterized by extraordinary flexibility. When intelligence pinpointing the location of Saddam and his senior leadership on March 20 came to American forces, Franks ordered an attack on the location. Two USAF F-117 stealth fighters, flying silhouetted against a full moon and with no jamming or fighter support whatever,

struck the target with four EGBU-27 laser guided bombs. The bombs hit just four hours after the pilots had been roused from their cots and handed imagery of the target on their way to their aircraft.

Following the four penetrating bombs were more than 40 Tomahawk Land Attack Missiles, fired from ships in the Persian Gulf and the Red Sea, completing destruction of the target both above and below ground.

Even three weeks later, it was not clear whether Saddam and his lieutenants had been killed in that first raid.

US goals in Iraq were laid out by Defense Secretary Donald H. Rumsfeld in a March 21 press conference in which he listed the tasks to be performed in order of importance.

"Our goal is to defend the American people," Rumsfeld said, "and to eliminate Iraq's weapons of mass destruction and to liberate the Iraqi people."

Specific Objectives

Coalition military operations were focused on a number of specific objectives, Rumsfeld said. These he listed as, first, "to end the regime of Saddam Hussein by striking with force on a scope and scale that makes clear to Iraqis that he and his regime are finished.

"Next, to identify, isolate, and eventually eliminate Iraq's weapons of mass destruction, their delivery systems, production capabilities, and distribution networks. Third, to search for, capture, [and] drive out terrorists who have found safe harbor in Iraq. Fourth, to collect such intelligence as we can find related to terrorist networks in Iraq and beyond. Fifth, to collect such intelligence as we can find related to the global network of illicit weapons of mass destruction activity. Sixth, to end sanctions and to immediately deliver humanitarian relief, food, and medicine to the displaced and to the many needy Iraqi citizens. Seventh, to secure Iraq's oil fields and resources, which belong to the Iraqi people, and which they will need to develop their country after decades of neglect by the Iraqi regime. And last, to help the Iraqi people create the conditions for a rapid transition to a representative self-government that is not a threat to its neighbors and is committed to ensuring the territorial integrity of that country."

Two weeks later, Rumsfeld said he demanded nothing less than "unconditional surrender" of the Saddam regime.

USAF photo by SSgt. Shane A. Cuomo



USAF Boots on the Ground. An Air Force pararescueman and HH-60G gunner prepare for a mission. Rescue units and Special Operations Forces played a silent but critical role across the war zone.

To accomplish all this, the plan—called 1003V—had gone through many iterations and refinements over the last year, according to Gen. Richard B. Myers, Chairman of the Joint Chiefs of Staff.

Rumsfeld said the off-the-shelf plan for an invasion of Iraq—originally dubbed 1003—“was inappropriate” for the effects desired by the Bush Administration. That plan had called for more troops than the Pentagon leadership wanted to use, department officials said. It also left Saddam Hussein with too much opportunity to execute a “scorched earth” plan that would destroy Iraq’s economic viability, specifically, its oil wells and pumping capability. The US wanted to use the revenue from that oil wealth to pay for the reconstruction of Iraq and give a new government there a chance to get quickly on its feet.

Franks and his staff rebuilt 1003 several times, each time relying on fewer troops and faster action.

When it was noted that the new plan seemed to have many of the features Rumsfeld has been touting for two years—chiefly, fewer, more mobile ground troops—Rumsfeld insisted, “It’s Tommy Franks’s plan.” He added that it had been “washed through” the Joint Chiefs and regional commanders, all of whom had embraced it as “excellent.”

The plan emphasized preserving Iraq’s economic assets and civilian infrastructure and preventing civilian casualties. It appeared, according to former Secretary of State James A. Baker III, to be a blueprint to “win the peace” after winning the war.



USAF photo by SSgt. Cherie A. Thurby

BONE Crusher. Air Force heavy bombers such as the B-1B Bone dropped vast numbers of precision and standard ordnance. Here A1C Nicholas Lewis loads a 2,000-pound weapon onto the aircraft.

The leaflets dropped on Iraq urged Iraqi troops not to fight for a doomed regime and instructed them on how to safely surrender when coalition troops arrived. The leaflets also warned that any Iraqi forces following orders to use chemical or biological weapons would be found and prosecuted as war criminals. Other leaflets implored Iraqis not to destroy their own oil wells, since this resource constituted their future livelihoods.

To guarantee the safety of the oil wells, Special Operations Forces moved in before hostilities began and perched near the wells to disarm any bombs planted on them. While many of the oil wells were indeed rigged

with explosives, only seven of the several hundred wells in Iraq were actually blown.

“Shock and Awe”

The Pentagon leadership expected that the ferocity of air attacks on Saddam’s facilities in Baghdad and elsewhere, coupled with swift ground force movement in southern Iraq and a perceived hatred of Saddam, would cause Iraqi forces to surrender en masse and welcome the coalition as liberators.

Military officials placed stories with the media warning that a thunderous opening attack would “shock and awe” the enemy into believing that resistance was futile. The phrase “shock and awe” came from a 1996 white paper by Harlan K. Ullman, advocating a fierce and fast campaign of bombing and swift maneuver to “enervate” an enemy and bring about quick capitulation. The strategy might help offset reduced numbers of ground troops and other forces, Ullman wrote.

Ullman later said the bombing seen in Baghdad, while impressive, was not what he’d had in mind. Moseley said, “Shock and awe [has] never been a term that I’ve used.”

“Did we withhold a large punch?” asked Moseley. “We withheld some targets based on the initiation conditions, and based on where the surface forces were, but that’s the right thing to do anyway.”

Moseley said that, though relentless and devastating fire had been brought down on fielded forces and regime targets, the key goal was “to absolutely, totally minimize the col-



USAF photo by SSgt. Quinton T. Burris

Tank Plinking. Marines near Nasiriyah inspect Iraqi tanks destroyed from the air. Spotted by space systems, UAVs, and Joint STARS, Iraq’s armor was shot to pieces by coalition aircraft.

lateral damage and absolutely, totally minimize the effect on the civilian population, so that as much of this infrastructure can be returned back to the Iraqi people after the liberation so that they can get themselves as fast as possible back to a functioning society.”

So strong was the emphasis on avoiding civilian damage whenever possible that Moseley had some crews drop inert bombs—those using a guidance kit but with just a weight where the explosive should be—to achieve, through mere kinetic effect, the specific destruction wanted. He also ordered pilots to return with their bombs if they could not properly identify their targets, and many did.

“We’ve trained to this and ... spent a lot of time worrying about this,” Moseley said. “We are very, very sensitive to not creating a mess inside [Baghdad].”

Turkish Surprise

Franks’s plan called for first sending in the 230,000 ground troops, followed by a flow of reinforcements. Should the fighting not go as well or swiftly as intended, new forces would continue to arrive in theater. Should they not be needed, the flow could be turned off, Franks said.

Myers explained that the ground force was to move first, without the prelude of an air campaign, to preserve the element of surprise.

“How do you protect tactical surprise when you have 250,000 troops surrounding Iraq on D-Day?” Myers asked at an April 1 Pentagon press

briefing. “Well, you do it by ... starting the ground war first, air war second.”

Because of the unexpected March 20 opportunity to strike Saddam and his lieutenants, G-Day was moved up one day, as was A-Day, the start of intensive air attacks on regime targets in Baghdad, Mosul, and Tikrit.

Ballistic missiles—with or without weapons of mass destruction—were priority targets.

It was essential that Saddam not be allowed to launch missiles at Israel, which had pledged to retaliate if attacked, as it had not done in 1991. For this, coalition aircraft were deployed into kill boxes over southern and western Iraq, where mobile missiles had been detected previously.

Franks also deployed Patriot missile batteries with the new PAC-3 missile, which intercepted a few of the missiles that Iraqi forces managed to launch in the first few days of the conflict. It is thought that the launched missiles were either al Samoud or Soviet-made Frog weapons, smaller than the longer-ranged Scuds.

Franks’s plan called for a sweeping action in the north, with tanks and mechanized infantry advancing from Turkey. When Turkey withheld permission to stage the forces or permit strike sorties to originate on its soil, the plan shifted. USAF C-17s deployed airborne forces that seized the northern airfield of Bashur, where airlifters began bringing in vehicles and supplies to reinforce them. (This airlift included the first-ever battle-field insertion of an M1A1 tank, by C-17.) Turkey did allow overflight by

US aircraft, especially badly needed aerial tankers.

US troops, in particular Special Operations Forces, joined Kurdish rebels to apply pressure on Mosul in northern Iraq. As in Afghanistan, they worked closely with aircraft overhead, which delivered precision strikes on enemy forces. The effect was that small SOF groups, enhanced by indigenous forces and backed up by airpower, virtually substituted for a brigade of first-line troops.

In the north, American SOF elements and airpower forces attacked terrorist camps, one of which was found to harbor what appeared to be a primitive chemical/biological weapons factory.

In the west, near the Jordanian border, Special Forces took Iraq’s H-2 and H-3 airfields, using them to mount more Scud-hunting raids and to serve as resupply points. Tactical C-130 transports operated from these airfields shortly after the war began, resupplying coalition troops throughout Iraq.

In the south, the advance set a blistering pace, so fast that Army and Marine units seemed to have outrun their supply lines. At several points, tip-of-the-spear units reported running low on ammunition. They were resupplied by nonstop convoys as well as combat airdrops from C-17s and C-130s.

After a week’s fighting, the coalition ground advance slowed, causing many to speculate that it had been stopped by Iraqi resistance, had outrun its supply lines, or was too thinly spread out to be able to protect its flanks. In reality, it was preparing for the next push and allowing airpower to attack the Republican Guard elements that had moved out of Baghdad and its environs to meet the coalition ground force. Airpower quickly targeted and destroyed most of the Republican Guard.

Saddam’s forces did not fight a brilliant defense. They failed to use the terrain to their advantage, leaving major bridges—instead of blowing them up—over the Tigris and Euphrates Rivers for the coalition to use. Saddam also used his least-dependable forces as his first line of defense and then put his best Republican Guard forces out in the open with no air cover.

By April 7, ground units had taken Saddam International Airport, closed off all major highway entrances and exits to the city of Baghdad, made several excursions in force through the city, and captured two of the

AP photo by Tam McDonald, British Ministry of Defense



Taking Basra. UK and Australian ground and air forces were key elements of the coalition plan. British forces took the key cities of Basra and Umm Qasr in southern Iraq, paving the way for humanitarian supplies to enter the country.



Beddown in Babylon. On April 7, US Army forces took Saddam International Airport, renaming it Baghdad International Airport. Soon, USAF C-130s were bringing in vast amounts of supplies.

Presidential palaces. A supplies-laden C-130 Hercules landed and took off from the airport, now renamed Baghdad International Airport.

The Republican Guard had ceased to exist as a large, coherent fighting force and was reduced to resistance in small groups, which the Pentagon characterized as “militarily insignificant.” And the US was preparing to install the first elements of a transitional government.

Iraq’s air defense system had proved ineffective. Its constituent parts were either knocked out prior to full hostilities or were moving too frequently to mount any meaningful threat. Only one coalition aircraft was shot down by enemy fire, while accidents, including friendly fire, brought down several others during the first three weeks. Many Iraqi aircraft were destroyed on the ground, and none were launched against coalition forces.

Air Force and other coalition aircraft were based at 37 locations, including the Gulf Region, Diego Garcia in the Indian Ocean, Eastern Europe (particularly Bulgaria and Romania), the UK, and Whiteman AFB, Mo.

By the end of the first 21 days, fewer than 100 Americans had been killed by enemy fire.

Bombs for a Tyrant

During daylight hours on April 7, CENTCOM received information from human intelligence that put Saddam and his closest aides in a particular compound in the northwest portion of Baghdad. Officials fed the target data to a B-1B bomber, orbiting nearby. The bomber crew loaded the coordinates into four GBU-31 bunker-buster

bombs equipped with GPS guidance. Within 12 minutes of the order, the bombs struck the structure, leaving a crater 60 feet deep.

CENTCOM later said it did not know if Saddam had been killed in the strike but that, if he had been present, he would have sustained more than just simple injuries. The next day, US forces reported that resistance seemed to lack any central control at all.

Real-time imagery from Predator and Global Hawk unmanned aerial vehicles patrolling over Baghdad aided close air support provided by

AC-130 gunships and a range of aircraft, from fighters to bombers, using JDAMs.

“If you can give me a specific location in there, we have the means to hit it with precision,” a Pentagon official said. “And I mean, we’ll ask, ‘Which window?’ ”

Coalition leaders pointed to astonishing gains over the previous three weeks, highlighted by the jubilation in Baghdad as residents toppled statues of Saddam Hussein.

Though the war was over, the fighting was not. Officials declined to be specific about what conditions would lead them to declare victory. For the most part, they said, the coalition’s military action would end when resistance stopped and a new Iraqi government, composed of Iraqis, had been set up.

A Pentagon official said he himself was awed by the swift results of the campaign.

“Fifteen years ago, we were starting to talk about this Revolution in Military Affairs,” he said. “We used to be bothered by the nighttime. Now we love the night—we can operate in it, and we get some protection from it. We used to be bothered by the weather. While we would like to have clear weather, if it’s cloudy or foggy or there are obscurants like smoke or haze, that’s OK, now. We can still strike with precision. We have 24/7, real-time imagery of the target. This is just unbelievable, but the proof of it is out there.”

He added, “I never thought we would be here so soon.” ■

A Preliminary Chronology of Key Events

(All dates are Baghdad time.)

March 19. Coalition aircraft conduct strikes to prepare the battlefield; Special Operations Forces move into southern Iraq to secure border gun positions and protect oil wells.

March 20. Two USAF F-117 stealth fighters and six US warships attack leadership targets of opportunity about 5:35 a.m. in Baghdad. About 45 minutes later (10:16 p.m. EST, March 19) in Washington, D.C., President Bush announces to the American people that operations in Iraq have commenced. The Senate passes a resolution backing the operation, 99–0. Coalition ground forces move from Kuwait into Iraq at 8 p.m., marking the start of G-Day, the ground campaign.

March 21. At 9 p.m., coalition air forces commence nearly 1,000 strike sorties, marking the beginning of A-Day, the air campaign. The House passes a resolution backing military operations, 392–11. Coalition forces seize an airfield in western Iraq, advancing 100 miles into Iraq.

March 25. British forces secure the port city of Umm Qasr, opening a key route for humanitarian supplies.

March 26. USAF C-17s air-drop some 1,000 Army paratroopers and USAF personnel into northern Iraq to open a northern front and secure the airfield at Bashur.

April 3. US ground forces take Saddam International Airport, just 10 miles from Baghdad. Coalition air strikes continue to pound the Republican Guard and provide close air support for ground troops.

April 7. British forces secure Basra. US forces push into Baghdad.

April 9. Baghdad falls.

April 16. CENTCOM officials declare end of major combat action.