Presentations

Long-term Implications of Gulf War on US Strategy and Concepts

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This paper discusses the long-term implications of the 1991 Gulf War on US strategy and concepts. The strategic significance of the 1991 Gulf War pertains more to its effects on US strategic thinking and concepts of war than any long-term effect it had on the region or international politics. The war demonstrated an increased effectiveness in air power and an enthusiasm for new technology that influenced thinkers and policymakers for decades. It generated a widespread belief that the United States was experiencing a "Revolution in Military Affairs." The influence of the war waned with the advent of the wars against terrorism but can still be seen in counterterrorism techniques and in the current ideas about innovation to confront great power competitors. The Gulf War shaped and remains part of the American Way of War.

To understand the implications of the Gulf War, it is useful first to understand the thinking about air power and technology prior to 1991. Since the interwar period of the 1920s and 1930s, airpower had gained the interest of several theorists, including in the United States. Airpower enthusiasts embraced the theory that strategic bombing could be used to defeat an adversary. For American theorists, this largely was perceived through the precision bombing of enemy industry. For decades, however, the technology to strike with precision was missing. In the Second World War, air strikes were widely inaccurate and a massive number of bombers and accompanying escorts were required to damage German and Japanese industry. Technology was not much better for most of the Vietnam War, shown by the fact that more bombs were dropped on North Vietnam than had been on Germany. Only at the end of the war did precision improve with the introduction of laser-guided munitions. Still, for forty years, air power had not been the decisive arm of military forces. Substantial ground forces had always been needed.

The Gulf War dramatically changed this verdict. During the 1970s and 1980s, a larger number of laser-guided weapons and a large number of cruise missiles that could accurately strike any fixed targets had been introduced. Space-based and aerial ISR systems allowed far more targets to be found and identified. Improved communications systems allowed for better management of information and conduct of command and control. Additionally, certain aircraft had stealth characteristics that allowed them to penetrate undetected through Iraqi radar coverage.

The war began with a six-week air campaign, drafted by Colonel John Warden, that was highly effective. In the first phase of the campaign (altogether known as Operation Desert Storm), cruise missiles from US Navy ship struck high priority targets, stealth aircraft assisted with the suppression of Iraqi air defenses, and US fighter aircraft established air supremacy. Iraqi aircraft were swept from the skies, air defenses were destroyed, and key command and

control nodes were targeted. This occurred in short order. US and coalition aircraft then turned to the ground forces throughout Kuwait and Iraq. The campaign wrecked Saddam Hussein's army and defense capabilities. Twenty percent of troops, tanks, and armored personnel carriers were destroyed. Morale was weakened. Standing divisions fell by 40 percent. The ensuing ground campaign lasted a mere 100 hours and wiped a great deal of the remaining Iraqi tanks and heavy equipment. US casualties and losses were stunningly low. Only 240 Coalition soldiers of the coalition were killed. Roughly one soldier per 3,700 was killed, compared to the 2–5 per 100 in most previous wars.

Revolution in Military Affairs

The success of the Gulf War appeared to have signaled a revolution in warfare. New technology could win wars at a lower cost than previously and without the commitment of large numbers of ground forces. During the war, the media had televised military videos of precision strikes—cruise missiles flying through windows and the like. For the United States, the victory seemed to herald unmatched military superiority. The US Air Force commissioned "The Gulf War Air Power Survey," five volumes with details on all aspects of the air campaign.[1] The main lesson for most observers was that technology was now decisive. Defense Secretary William Perry, during the Clinton administration, referred to a "revolutionary advance in military capability."[2] Indeed, Russia and China read it that way and started a gradual process to adapt their military forces. The war also created a sense among US leaders that casualties in war could and should be low. The higher loss rates of Vietnam or Korea became a thing of the past, contributing to regular assessments by American and other observers that the United States had become "casualty averse." Vice Chairman of the Joint Chiefs of Staff Admiral Bill Owens stated that new technology made US victory "inevitable and our historically small loss of life probable." US defense policymakers in general saw the Gulf War as the inauguration of a new American way of war that was highly technological, airpower-centric, and low casualty.[3]

Ironically, the outcome of the Gulf War was also due to the ground offensive, which utilized maneuver warfare concepts of "Air-Land Battle" and advanced armor technology developed in the 1970s and 1980s. Even though various analysts pointed this out, the ground component received short shrift in the post-war military thinking.

Subsequent conflicts in the 1990s added to the weight of the argument, if with a few questions. In the mid-1990s, US air strikes in Bosnia turned the tide of that war and led to the Dayton accords. Then, at the end of the decade, the air campaign in the months-long Kosovo war compelled Serbia to concede. In both cases, substantial Bosnian or Kosovar ground forces were operating on the ground but that did not damage the verdict that the United States could achieve its goals largely through air power. The experience of Somalia and Mogadishu in 1993 was taken as less a signal of the limits of technology and air power than of the wisdom of

1 Eliot A. Cohen, ed., *Gulf War Air Power Survey* (Washington, D.C.: GPO, 1993).

2 Gian Gentile, Michael Shurkin, Alexandra Evans, et al, "A History of the Third Offset, 2014-2018" (Santa Monica, CA: RAND Corporation, 2021), p. 17.

3 Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton and Oxford: Princeton University Press, 2004), p. 133.

relying upon it instead of placing boots on the ground in a city.

By the turn of the century, intensive precise air campaigns had become a hallmark of US strategy—and would continue to be so for the next two decades. A set US schedule of war materialized, which looked very much like a new way of war. It involved initial air strikes to hit adversary command and control and air defense systems; any aircraft would be swept from the skies. Next, critical targets would be struck, usually across the defending country's territory. Then, the defending military forces would be subjected to weeks of bombing. Finally, any US or allied and partnered ground action would commence, which would finish off the war.

The effectiveness of new technology led to the discussion of a "revolution in military affairs" within defense policy circles. Professor Steve Biddle described the revolution as: "the nature of military power is being transformed. In the future, it is held, long-range precision air and missile strikes will dominate warfare, ground forces will be reduced mostly to scouts, and the struggle for information supremacy will replace the breakthrough battle as the decisive issue for success."[4] New concepts were created to exploit the perceived and expected increased effectiveness of military forces through technology. One such concept was "effects-based operations." Its idea was that by precisely targeting critical nodes that an enemy could be forced to back down—without its armed forces having been actually destroyed. In 2002, a large exercise, called "Millennium Challenge," was undertaken to prove and experiment with the new concepts. Further improvements and investments were considered necessary to fully realize the revolution and keep the United States ahead of all potential adversaries.

The idea of a revolution in military affairs was facilitated by the decreased salience of nuclear weapons. With Russia in remission and China unrisen, no nuclear power existed to compete with the United States. US strategists could think about conducting wide-ranging air strikes against an adversary without facing nuclear retaliation. Otherwise, the idea of such air strikes would be highly dangerous.

The revolution in military affairs was enshrined in the 2001 Quadrennial Defense Review (QDR) under Donald Rumsfeld, who was generally supportive. He wanted to see a transformation of the US military and made it a singular priority. In a speech in 2002, he stated: "We need rapidly deployable, fully integrated joint forces capable of reaching distant theaters quickly and working with our air and sea forces to strike adversaries swiftly, successfully, and with devastating effect. We need improved intelligence, long-range precision strikes, sea-based platforms to help counter the access denial capabilities of adversaries."[5]

The negative side of the revolution in military affairs was its disregard for the potential of terrorism and insurgencies. Terrorism was under-rated as a threat. And, in spite of the Balkan Wars, insurgency was treated as a relic of the Cold War. Professor Lawrence Freedman in a prophetic 1998 Adelphi Paper entitled *The Revolution in Strategic Affairs* warned that weaker powers would try to impose pain, gain time, target the American political base, and draw the civilian sphere into combat rather than accept decisive military confrontation.

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4 Ibid., p. 4.

5 Mark Czelusta, "Business as Usual: An Assessment of Donald Rumsfeld's Transformation Vision and Transformation's Prospects for the Future," *The Marshall Center Occasional Paper Series*, no. 18 (June 2008), p. 7.

The Long Wars

Then, 11 September happened. US focus shifted from the rogue states and their conventional armies of the 1990s to defeating a terrorist threat. Yet the technological advances witnessed in the Gulf War continued to shape US military strategy and operations. Most importantly, they branched off into a new direction in the form of counterterrorism, which became the preferred US operational concept of the next 20 years.

The initial reaction to the 11 September attacks was the invasion of Afghanistan. "Operation Enduring Freedom," the official name the US government used for the war, began on 7 October 2001. It very much followed the model of the Gulf War--a set of air and cruise missile strikes. The technology of the Gulf War had by now improved. In addition to laser-guided munitions, new GPS satellite guidance systems could track a bomb against any programmed coordinate, down to a square meter. The pilot could drop the bomb and forget about it, confident it would reach its target. Traditional unguided "dumb" bombs were also still in use. Ordnance was released by a variety of aircraft: high performance F-15E strike fighters, carrier-based F-18C fighters, black B-2 stealth bombers, and 40-year-old Vietnam-era B-52G/H bombers. Manned aircraft were joined by new Predator drones flying out of Shamsi and Jacobabad air bases in Pakistan. The drones could fly hundreds of miles and then loiter over a target area for hours, observing possible enemy activity through onboard cameras. Certain versions carried Hellfire missiles.[6]

Initial strikes quickly demolished Taliban airfields, radars, anti-aircraft weapons, and communications systems. The aircraft then turned to headquarters, ministries, bases, and other military targets. Mullah Omar's home was hit too. The Taliban's written history of the period stresses the impact of the bombing and the fact it targeted many of their government buildings and military headquarters.[7]

The difference in this plan from the Gulf War was the use of special operations forces and CIA units on the ground in cooperation with local Afghan forces. Satellite communications allowed the small teams to call down US air strikes. The Taliban were forced to concentrate to fight the local forces, making them vulnerable to air strikes. The United States dropped hundreds of new GPS-guided 500-, 1,000-, and 2,000-pound bombs. The Taliban collapsed in short order. The result of the war for some underlined the revolution in military forces. Large ground forces could be replaced by a handful special operations forces. This became known as the "Afghan model."

Ironically, the 2003 invasion of Iraq did not follow the Afghan model. Iraqi conventional forces were deemed too threatening to be overcome with air and special operations forces alone. Consequently, a large ground invasion was launched nearly simultaneous to the air campaign. The air campaign, once more, rapidly crippled Iraqi forces—though ground forces did survive to fight in a variety of places, especially urban areas. Again US casualties were

6 Chris Woods, *Sudden Justice: America's Secret Drone Wars* (Oxford: Oxford University Press, 2015), p. 41.

7 Zahidi Ahmedzai, *The Past and Future of the Islamic Emirate of Afghanistan* (Quetta: Taliban Director of Culture, 2013), p. 195. Translated by author.

very low—only one per 2,500 military personnel.

After those stunning victories in Iraq and Afghanistan, the nature of the wars shifted. They became insurgencies. Air power and technology were critical to US operations but the wars were a struggle.

The wars in Iraq and Afghanistan eventually removed all momentum from the revolution in military affairs. Fighting insurgents took priority. Ground forces were the center of attention. Secretary of Defense Robert Gates ended production of the F-22—the most advanced aircraft in the world—and invested in MRAPs to protect troops from improvised explosive devices. Counterinsurgency concepts, which stressed the human over the technological, were implemented.

Yet slowly the theme of the Gulf War re-emerged. The United States shifted to a strategy which focused on the precise targeting of key enemy nodes from the air while minimizing the number of troops on the ground. This is known as "counterterrorism." It bears a hereditary line from the Gulf War.

Since 2001, the United States had been targeting al-Qa'eda and Taliban leaders. For the United States, the CIA and special operations forces conducted this work. It relied on special operations forces, systems to network communications, and drone, which could loiter over the battlefield for long periods to identify and track targets. Drones also could carry missiles to actually strike targets. Lieutenant General Stanley McChrystal pioneered counterterrorist operations in Iraq. McChrystal was in charge of counterterrorist special operations in both Iraq and Afghanistan. He was headquartered in Iraq at the time. There, he brought surveillance, human and signals intelligence collection, analysis, and the different special operations units into a single network, which allowed him to find and strike targets rapidly. A specific process matured: gathering intelligence on a target; using surveillance assets such as drones to locate the target; striking the target with a raid or missile from a drone or an aircraft; collecting new evidence, either from interrogation of a detainee or exploitation of materials such as computers left on site; analyzing that evidence; and then starting the process over again. McChrystal demanded a high operational tempo. He aimed to disrupt terrorist and insurgent networks and gather evidence to go after high level leaders through conducting as many strikes as possible. Single units often executed several raids per night. McChrystal was extraordinarily effective. His operations disrupted al-Qa'eda in Iraq and killed their leader, Abu Musab al-Zarqawi.

The same techniques were used in Iraq later to defeat Shi'a militias and then in Afghanistan to damage the Taliban. The United States also struck terrorist leadership in Pakistan. Drones had been hitting targets in Pakistan since 2004. President Obama stepped up their use. Strikes into Pakistan went from 36 in 2008, to 54 in 2009, and then to 122 in 2010.[8] A variety of terrorists, especially al-Qa'eda and Pakistani Taliban, were killed, including several al-Qa'eda leaders and Baitullah Mehsud, leader of the Pakistani Taliban.[9]

Counterterrorism methods ultimately eclipsed counterinsurgency and the ground-focus

8 New America Foundation, "Drone Wars Pakistan: Analysis" at <http://natsec.newamerica.net/drones/Pakistan/analysis>.

9 Peter Bergen and Jennifer Rowland, "CIA Drone Strikes and the Taliban," in Peter Bergen and Katherine Tiedemann, eds., *Talibanistan* (New York: Oxford University Press, 2013), p. 229.

of the first half of the Iraq and Afghanistan wars. The ground-heavy focus proved expensive and produced a steady number of casualties. President Obama withdrew US forces from Iraq and reduced the numbers in Afghanistan from 100,000 to 8,400. Operational strategy shifted to counterterrorism and advising focus. Heavy reliance was placed on drones and air strikes to eliminate insurgent leaders and to thwart Taliban advances.

When the Islamic State arose in Iraq and Syria, it was this technological strategy that dominated. Drones and other intelligence means or partner forces identified targets on the ground. Bombs and missiles from aircraft and drones struck targets. Only a few thousand US forces were in Syria and Iraq. The successful offensives in Anbar, Mosul, and Raqqah involved very few US advisors or special operations forces near the front line. For many Americans, the war was viewed through hi-tech command centers with feeds that could see most aspects of the battlefield. US casualties were minimal, though the destruction levied upon the Iraqis and Syrians was severe. This was not really the effects-based campaign of the revolution in military affairs. Large sections of Mosul and Raqqah were rubbled and the Iraqi and Kurdish forces on the ground experienced heavy combat. Nevertheless, the style of warfare for the United States can be traced back to the Gulf War.

Great Power Conflict

As the campaigns in Iraq and Afghanistan drew to their respective close, the United States again confronted great power wars. By the middle of the 2010s, the United States was again seriously planning for war against conventional, great power adversaries—China and Russia. Both countries had observed the Gulf War and the subsequent conflicts. They had been frightened by the strike capabilities of the United States and developed air defense, surface defense, and long-range missile capabilities to counter it, collectively known as anti-access and area denial (A2AD). The systems were generally judged effective enough to thwart a 1991-style air campaign. The US military generally recognized that the air dominance enjoyed since the Gulf War would no longer be possible. In that sense, the Gulf War model was obsolete. But in other ways it has lived on.

In counter great power adversaries, the United States has looked to develop new technology. The 2018 National Defense Strategy states: "The security environment is… affected by rapid technological advancements and the changing character of war. The drive to develop new technologies is relentless…New technologies include advanced computing, "big data" analytics, artificial intelligence, autonomy, robotics, directed energy, hypersonics, and biotechnology—the very technologies that ensure we will be able to fight and win the wars of the future."

Deputy Secretary of Defense Robert Work has called for a "third offset"—investment and development into new technology that can put the United States ahead like it was at the time of the Gulf War. The "first offset" was the US deployment of nuclear weapons in the 1950s. The "second offset" was the development of precision weapons in the 1970s, the effectiveness of which was proven in the Gulf War. Each offset leaped the United States ahead in its competition with the Soviet Union. For the "third offset," Work wanted to invest in advanced technologies, such as artificial intelligence, cyber, and autonomous systems, and

reorganize US defense structure and warfighting concepts to "offset" the capabilities of China and Russia. The ideas of the third offset were incorporated in the 2018 National Defense Strategy. We can see how US strategists still look to the years of the Gulf War as a model.[10]

The precision, long-range capabilities and the stress on technology of the Gulf War remain a hallmark of US thinking. Drones and unmanned systems are now meant not only for aerial surveillance but for communication, air defense, strikes, and penetration of enemy air defense systems. The *Economist* wrote in January 2018: "Autonomous drones will be able to perform a range of tasks that will soon make them indispensable. UAVs will carry out the whole range of reconnaissance or strike missions, and stealth variants will become the tip of the spear for penetrating sophisticated air defenses." Cruise missiles remain key offensive weapons, now complemented by hypersonic weapons, high velocity anti-ship missiles, and new long-range missiles with improved targeting capabilities. Artificial intelligence offers the potential for platforms to operate within adversary threat rings, better handle mass amount of data and identify targets, and make all military operations more efficient. In its most extreme form, artificial intelligence offers a vision of warfare in which human combatant casualties are reduced because more tasks can be fulfilled by machines.

I do not believe that it is thought that the United States can ever repeat the dominance of the Gulf War. Yet fighting wars from afar with precision technology that can destroy large portions of the adversary's force is a consistent theme and lies at the heart of discourse on defense strategy today.

Conclusion

Looking back, the Gulf War is a defining moment in US strategic and operational thinking. The stunning success inaugurated a period of unrivaled US conventional military superiority and a focus on technological innovation. The "revolution," however, never materialized because of the wars against terrorism. Nevertheless, the implications of the Gulf War are still felt through the development of counterterrorism concepts and ultimately through the return of great power competition. Today, the Gulf War model is accepted as obsolescent but innovation through the further development of the technologies and concepts that first gained notoriety in 1991 runs strong. We cannot understand thinking on defense strategy today without understanding the Gulf War.

[10] Gentile, Shurkin, Evans, et al, "A History of the Third Offset," pp. ix, x.