

Stephen Biddle on Military Power

ELIOT A. COHEN

The Paul H. Nitze School of Advanced International Studies, The John Hopkins University, Massachusetts, USA

Military Power's argument is straightforward enough: victory and defeat in warfare have, since 1900, resulted from mastery of what the author calls 'the modern system' of tactics, the essence of which is (in the offense) 'cover, concealment, dispersion, small-unit independent maneuver, suppression and combined arms integration' (p.35) and (in the defense) a similarly complex use of ground, deep positions, reserves and counterattack (pp.44–8). These techniques, mastered by a small number of countries, explain why and how countries win wars. In this clear, deeply researched and powerfully argued book, Stephen Biddle says that it is this system, and not technological superiority, or some generalized dominance of offensive or defensive weapons, or sheer numbers that determines combat outcomes. He argues his case by providing an account of warfare since the end of the nineteenth century, and by a close rendering of three campaigns: the German 'Michael' offensive of the spring of 1918, the British 'Goodwood' offensive in Normandy in 1944 and 'Desert Storm', the American attack on Iraq in 1991. In addition, Biddle makes his case using a large-*n* study drawing on a number of sources, including the Correlates of War project, as well as findings from simulations, and in particular from the Institute for Defense Analyses' recreation of a fight at 73 Easting during the 1991 Gulf War. The book concludes with a critique of the notion of a Revolution in Military Affairs (RMA). Technology has not and will not change warfare dramatically for some time to come, Biddle believes. He offers as well a critique of international relations theorists who speak of

Correspondence Address: Professor Eliot Cohen, The Paul H. Nitze School of Advanced International Studies, The John Hopkins University, 1619 Massachusetts Avenue, NW, Washington, DC 20036, USA. E-mail: eliotcohen@earthlink.net

military capability as an undifferentiated phenomenon, rather than a complex of forces and their doctrines.

So what is this book? The most interesting work in any field usually lies along an intellectual seam, and that holds true here: Biddle writes for the international relations branch of political science on the one hand, and for the military analysis community on the other. *Military Power* is an academic work of social science, self-conscious (often written in the first person) in its posing of questions, statement of questions and justification of methods. It draws on a variety of methods of inquiry, from archival research to formal modeling, all done with great care and a prodigious amount of labor. It is a first-class piece of work – even if (as is the case in this essay) one disagrees with much of the argument.

Although *Military Power* ends with a discussion of the second Gulf War and the RMA, its intellectual roots seem to lie in academic debates of the late 1970s and 1980s about the nature of the balance between NATO and the Warsaw Pact in central Europe. Those arguments resulted from a policy-relevant question: whether NATO would be likely to be able to put up an effective resistance to a conventional Soviet military attack. The resulting scholarship on conventional deterrence in Europe turned analysts to questions such as how to measure military balances and whether one could speak of offense- or defense-dominance in international politics. The 1980s saw a reawakening of the combination of historical study and operational analysis that characterizes Biddle's book, and with it a desire to bring scholarship to bear on contemporary issues – and sometimes to use current strategic problems to provoke deeper scholarly investigation.

These origins may explain Biddle's definition of his topic. This is a book about military power, but it does not deal at all with naval affairs, and only tangentially with the use of air power as anything other than an adjunct to ground operations. It looks at invasions across clearly demarcated borders, and although the theoretical portions of the book are abstract, the implicit problem that lies at the heart of the book is something very like the question of how the West would fare against a Soviet assault across the inter-German border. There is not much here about special operations, or psychological warfare, or the home front, or industrial mobilization: it is, rather, a book about operations and tactics for inter-state land warfare.

Authors who have a distinctive case to make often do so in response to views or attitudes that irk them. Two sets of generally-held opinions seem to have aroused Biddle's ire. The first one might be called the mechanistic school of defense analysis, that is, the approach to the study of military balances that falls back on static quantitative analyses. The hoary, unsupported and perhaps insupportable three-to-one rule for the success of offense over defense is the

classic piece of pseudo-wisdom against which *Military Power* rebels. Biddle repeatedly skewers those who think that comparative examination of raw numbers of soldiers or machines can tell much of anything about who will succeed in war. Employment is the key, and with it the professional ability and temper of the organizations that do so. The second target of his criticism is the community of technological enthusiasts. *Military Power* hammers away at the notion that although a technological disparity can enhance or exacerbate a battle outcome, victory and defeat hinges altogether on the application of the modern system. He has no patience with the technology-centric view of war expressed by Admiral William Owens, for example, or for notions that close combat is anything other than the central element of any war. 'Firepower alone – even twenty first-century firepower – is not enough to defeat an opponent who can exploit modern-system exposure reduction' (p.59). Combat, he believes, has not changed in fundamental ways since the end of World War I, when the modern system emerged fully. Changes in mobility – tanks that can drive 60 miles per hour or better, or even the advent of the helicopter and the jet aircraft – do not change the fundamental fact: to win offensively or defensively, you have to master the modern system and grapple with an enemy in close combat. Technological determinists are not merely wrong, but dangerous: their enthusiasm can lead the armed forces into the perils of excessive change and innovation (p.206).

Military Power is a remarkable book. Although never quite jargon-free, it is written clearly. Its author plays with an open hand: there are no tricks here or lapses of logic. He does not hesitate to point out those instances where his case studies do not confirm his central thesis, and he freely acknowledges the weakness of some of his approach. And it is, in some ways, an enduring contribution – but it is also an unconvincing argument.

Begin with 'the modern system'. Biddle is surely correct in seeing the beginnings of modern infantry tactics in World War I. It is to that period that we can date the development of the squad as a tactical organization, the use of combined arms down to the lowest possible level of war (the use of the automatic rifle or light machine gun, but also the flamethrower, various types of hand grenades and light mortars). It was in the wake of that war that Field Marshal Wavell famously remarked that 'the combat infantryman should combine the arts of a successful poacher, a cat-burglar and a gunman'. But does this qualify as a system? Was it a break with the past, or a mere evolution of military technique, in which case it is no system at all? And does it persist today?

Contemporary military analysts often fall back on stereotyped images of eighteenth- and nineteenth-century land warfare, in which

masses of drilled automatons slammed into one another at short ranges, and in which the chief challenges of command were first, the cultivation and maintenance of Prussian-style *Kadavergehorsam* – ‘corpse-like obedience’ – and second, the management of logistics in an age of poor roads and horse-powered transportation. The reality is considerably more complex. If we take Biddle’s rendering of the ‘modern system’ in the offense as ‘cover, concealment, dispersion, small-unit independent maneuver, suppression and combined arms integration’ we find all of these in the nineteenth century and indeed in the eighteenth. Wellington’s adroit use of ground at Waterloo (keeping his men flat on the ground behind slight rises in order to avoid suppressive fire from French artillery), Stonewall Jackson’s covert march around Joe Hooker’s flank at Chancellorsville, the intimate combination of artillery and infantry in the latter phases of the Civil War – these all have a modern feel. To be sure, twentieth-century warfare devolved more and more responsibility to junior leaders, but already by the time of the Franco-Prussian War company commanders were becoming tactical commanders. And in both the United States (US) and Europe going back to at least the second half of the eighteenth century small units – light infantry, rangers and partisans of various kinds – were critical to battle. With the devolution of authority downwards came a change in the attitude of armed forces to soldiers: Sir John Moore’s famous school of infantry at Shorncliffe pioneered a form of discipline that emphasized the cultivation of initiative and willing obedience far more than robotic obedience to orders.

Conversely, not all of the supposed features of the modern system were present in many of the great battles of World War II. Armored warfare in North Africa (as with some of the fighting near the Suez Canal in 1973) was not a matter of cautious, creeping movements from covered location to covered location, but the movement of scores or even hundreds of vehicles out in the open, en masse. And even infantry combat had its moments where the supposed modern system simply could not work – on the largest scale think of D-Day, on the smallest, of the advance of infantrymen in the horrifying scenes of John Huston’s film *The Battle of San Pietro*.

At the same time, there are ways in which the notion of a modern system of warfare substantially underestimates change in land warfare. Biddle may be correct in downplaying the impact of the tank at the end of World War I – more on that below – but there is something perverse in the extent of his rejection of mechanization as a transforming element of modern war, creating new strengths (could an infantry-based Israeli army have conquered and occupied the Sinai desert in three days in 1918 and then shifted north to deal with Jordan and Syria?) and new dependencies (not only for supply, but for

maintenance as well). Or take the spectacular growth of special operations forces empowered by modern communications with advanced aircraft. In Operation 'Iraqi Freedom' a substantial part of the combat took place in western Iraq, in areas unreachable by large American land forces, but populated by special forces operating in close cooperation with precision air power. The fighting here, like that in Afghanistan two years earlier, undoubtedly included some close combat of a traditional type, but it is hardly 'the modern system' as defined by Biddle.

Biddle often fends off criticism from those who point to lopsided contemporary combat outcomes by suggesting that the explanation lies not in the role of technology or the changing nature of combat, but in a contest between countries that have mastered the modern system and those that have not. This argument runs the risk of circularity: if you lose big, by his definition you have not mastered the modern system. But more importantly, who is modern? Given the reliance of the former Soviet armed forces on massed formations not relying on cover, concealment and dispersion one might be forgiven for declaring them, pre-1990, as non-modern. The US military embodies the modern system pretty clearly and so do the Israelis and the British. But who else? By Biddle's standards there has not been a fight between two skilled practitioners of the modern system since Vietnam, and no fight between modern countries in European or desert terrain since 1945. Biddle manages to define the Taliban and their al-Qaeda allies as 'modern' by his definition – even though the former, at any rate, presided over a medieval theocracy, lacked much in the way of formal military organization, and possessed few heavy weapons and those poor. At the same time, he declares the Iraqi military to be in important respects non- or pre-modern – although in 1991 it looked very much like a European or Soviet-type army. Such definitions can be made to work within his framework, but they stretch common sense.

A second problem with *Military Power* lies in its relentless focus on high-intensity, high-density land combat as the chief form of warfare. Of course, an author can define his topic as he wishes, but he should also acknowledge that some areas lie outside his domain. Biddle argues, for example, that the 1999 Kosovo air campaign failed to destroy Serb ground forces. Very true – but it succeeded altogether in achieving the political objective sought by the American-led coalition, namely, the unconditional withdrawal of Yugoslav government forces from Kosovo, and ultimately the collapse of the Serb government. More narrowly, in his examination of the 'Goodwood' and 'Desert Storm' cases he pays scant attention to the impact of sustained air operations during the 1944 and 1991 campaigns. But in the former case months of

aerial attack on German lines of communication so disrupted logistics and movement as to set the conditions for the breakout from Normandy; in the latter case, over a month of aerial bombardment, to include attacks on supply lines, left Iraqi forces demoralized, their supply system in tatters and their best forces capable only of a retreat that the Americans were unwilling – not unable – to turn into a massacre. Put differently, one can turn any land clash into an example of the decisiveness of close combat if you choose not to pay much attention to all the other combat phenomena that set up and conclude the close fight.

This leads to a third problem: Biddle's case selection, and the details of their handling. Although, again, all case selection is bound to be somewhat idiosyncratic, one has to wonder about them.

The first case, the 'Michael' offensive, is in many ways the strongest, although historians of World War I will, no doubt, raise their eyebrows at the absence of German language sources on what was, after all, a German fight. Even so, one may point out that the more decisive quality of those battles – or at least their leading to gains of miles rather than yards – had something to do with the cumulative exhaustion felt by the armies of Europe after years of battle, as well as German technique. Biddle's point that the Germans succeeded without the employment of armor is, of course, correct, but he draws too large an inference from this about the relative unimportance of technology. Had the Germans possessed a 1940 (let alone a 1990) vintage military force, the potential for exploiting their breakthrough and penetrating all the way to the Allied rear would have been far greater. And indeed, that is what happened during the opening campaigns of World War II. For this reason alone, Biddle's rejection of the argument that mechanization transformed land warfare is hard to sustain.

Biddle makes much of the unimportance of tanks in the Germans' 1918 'Michael' offensive, and argues similarly, though in less depth, that this held true for the more successful Allied offensives in the opposite direction in the fall of that year. This assumes that German and Allied forces mirrored one another's offensive tactics: they did not. That armor was unimportant to one army does not mean that it was unimportant to another, and it certainly does not mean that because armor was not decisive in 1918 on either side (probably true) that it was not so in most, though not all, of the campaigns that took place 25 years later.

'Goodwood', the 1944 British offensive is a more questionable choice. The campaign in France 1940, any one of the phases of the North African fights, the battle of Kursk in 1943 or the destruction of Army Group Center in 1944 would all be equally plausible tests of Biddle's argument in a World War II setting. They would all, however,

show rather more change from the pattern of World War I than the argument of a scarcely changing 'modern system' dating to 1918 could easily sustain. Other major land operations – the battles on the Korean peninsula from the summer of 1950 through the spring of 1951, or the Arab–Israeli wars of 1967 and 1973 would have carried the story beyond World War II but are lacking.

The 'Desert Storm' case has other problems. As Biddle himself notes, the success of Coalition forces against the Iraqi military was wildly over-determined. American forces outnumbered, outgunned and outfought the Iraqis, many of whom were unhappy conscripts, already demoralized by a brutal regime and eight years of bloody war with Iran. And even there, Biddle's argument rests on the contention that the Iraqi military was in some sense non-modern – even though it had capable engineers, sophisticated hardware, complex organization and even some tactical skill.

The fourth weakness in Biddle's argument has to do with his great bugbear, technology, or rather, technological determinism. 'The modern system works by exploiting properties of military technology that have changed little since 1918 and are changing only slowly today' (p.52). Biddle evinces a relentless note of 'anti-technologism', if one may use such a word, even though he believes that the modern system resulted from a technological development, namely, the rise of 'radical firepower' (p.28). He sounds a note similar to that of economists who kept on insisting in the early 1990s that information technology investments yielded no productivity gains for modern companies, even as the same economists spent their research money on personal computers, corresponded by email, bought books on-line, posted their papers on the Internet and mastered the use of Excel spreadsheets. 'It is easy to exaggerate information technology's role in war, especially amidst the hype now associated with information's role in the civil economy' (p.63). Information technology is 'only decisively important against non-modern-system militaries'. To be sure, if two modern militaries were to clash neither would have an information edge, presumably, but the battle would be fought differently than before, in the same way that the contest between Microsoft, Apple and Oracle may not be predetermined by technology, but is surely different from the competition between Ford and General Motors, and yields a different kind of workplace, different kinds of strategies and a different kind of economy.

Technology, in Biddle's view, exacerbates the effects of superior force employment – a statement that again runs the risk of circularity, if one can define any success as the result of superior force employment. To his credit, he attempts to measure technological discrepancies, but does so in an odd way. He uses, as a measure of technological

sophistication, the discrepancy in the average age of weapon systems used by both sides. Even in the Iraq War ‘only twelve years separated the average introduction date of American and Iraqi weapons’ (p.67). But this is problematic in many ways.

First, if the technological base from which the two sides draw is different, the age of the weapon system is not very important: there were, after all, big differences in Russian, British and German tanks in 1941, even if they were of the same nominal vintage. This, by the way, goes to undermine Biddle’s observation that the Marines in ‘Desert Storm’ did well with M-60 tanks when up against their nominal equivalents in age on the Iraqi side. (As does his failure to mention that the Marines were desperate to re-equip with M-1 Abrams tanks, and did in fact do so, with the result that they went to war with both kinds, and not simply with the older vehicles.)

Second, such comparisons obviously pay no attention to those cases in which one side has technology and the other does not, or in which the quantitative difference in possession of technology makes a large difference. There were no Iraqi F-117 stealth fighters to compare with their American counterparts, and even if the Iraqis had a few GPS-based navigation systems, it was nothing compared with the quantity possessed by the US Army. The Iraqis did not have a JSTARS aerial surveillance radar, and they did not have a constellation of satellites or U-2 spy planes to survey the battlefield.

Third, a measure of technological imbalance that looks only at the age of the platform is profoundly misleading. Even in a tank, the age of the hull counts for a lot less than the fire control system and the optics, all of which can be, and often are, of much more recent vintage.

Soldiers are likely to disagree with Biddle’s belief in technological stasis, reflected in his assertion that ‘targets sheltered behind slopes or hidden among the rubble of destroyed buildings are little more vulnerable to a 2001 M1A2 tank than to a 1918 Mark IV’ (p.53). Quite apart from the very different qualities of the main weapon (a 120-mm gun vs. a six-pounder or machine guns), the reduction of a fight to direct fire systems is absurd. The gunner in the M1 may not be able to see over the hill – but the Apache helicopter gunship not only can, but can do something about it. The same gunner may or may not be able to destroy the infantry in the rubble building with his exceptionally accurate 120-mm tank gun, but the laser-guided bomb that a friendly forward observer calls down upon it can. The great difference in urban warfare outcomes in Jenin and Falluja as opposed to Stalingrad or Hue City, or even the Warsaw Ghetto uprising, have much to do with the role of superior technology on the part of attackers, even in the highly textured geography of an urban fight. It is, at least, an argument that deserves a hearing.

Moreover, in considering technology it is important not to fixate on platforms or systems that deliver chemical or kinetic energy. Communications, medical and logistical technology all play tremendously important roles in warfare. The Pacific campaigns of World War II, for example, rested in large part on the ability of American forces to stay healthy in a difficult environment, and on the inability of the Japanese (surely a 'modern system' army) to do so, with the result that most Japanese casualties in the Solomons were from disease, not bullets. Similarly, communications technology profoundly changed the way commanders can and do direct their forces. If no World War I commander, on either side, could instantly intervene in a breakthrough battle quickly enough to achieve a major victory, that was no longer true by the beginning of World War II, when divisional, corps and even army commanders could get close enough to the front to see for themselves, and when they could, in any event, communicate with subordinates in a timely fashion.

In addition to his formal case studies, Biddle uses other pieces of historical evidence to bolster his argument for the modern system. One is that at the National Training Center (NTC) US Army forces up against a notional Soviet (now Russian) armored opponent (the OPFOR) usually lose to a technologically inferior foe (p.145). But this is hardly fair: the OPFOR fight the same battles day after day, week after week, over precisely the same ground that their opponents – who show up at most for two weeks throughout the year – do. They have, as a result, a kind of familiarity with the ground that no conventional unit in war ever does, because they have literally fought the same battle over and over again without permanently losing a soul. The OPFOR do not have to make do with inadequate medical or logistical support, and above all, they do not operate under constant air attack. For training purposes, the game at the NTC has to be a tough fight for the units that rotate through it; it has as its objective not realistic experiments in virtual warfare, but the hardening of units for combat, which is a different thing.

Even stranger is Biddle's use of the 2001 Afghan war as a virtual case, 'precisely the kind of mid- to high-intensity struggle for territorial control on which I focus here' (p.207). In his telling, the Afghan war was a contest of close combat, with an admittedly important role played by close air support. He may be right in helping to correct the impression of the overthrow of the Taliban as an exemplar of an altogether new way of war, but again, he goes too far. To suggest that the Northern Alliance was a formidable conventional land force engaged in 'modern-system ground operations' (p.68) is to shrug off the evidence of preceding years in which the ill-equipped Taliban and their al-Qaeda allies drove them into a relatively small area in the northeast

of the country, inhabited by the ethnic groups from which the Northern Alliance drew its support. No reasonable person can look at the evidence – that a few hundred CIA operatives, Special Forces soldiers and Air Force controllers, equipped with precision navigation and designation equipment and good radios calling in air strikes delivered by fighters and bombers using precision munitions – completely reversed the military situation on the ground. In a case of seizing on trees so as to avoid looking at the forest, Biddle looks at the incidents of close-in fighting that occurred, and draws from them a conclusion that commonsense rejects.

Commonsense has, finally, a role to play in judging Biddle's two other supports for his argument: a statistical analysis based on large numbers of conflicts in the past, and computer simulation. Those with more technical skills than this author can judge the utility of the models and the veracity of the mathematics, but that does not preclude one from approaching such arguments with grounded skepticism. The large-*n* studies involve assuming that 'Germans vs. Italians in World War I' are somehow comparable to 'Syrians vs. Israelis in 1973', and that it is possible to aggregate the many different battles and campaigns of a given war, or different dyadic relationships, into something homogeneous. Perhaps – but one has one's doubts. And such doubts are compounded whenever one digs into the data incorporated in such analyses. Take, for example, footnote 42 in Chapter Two, which explains that over 150 years technology has not changed the rate of advance for lightly engaged infantry, drawing on a study that indicates that in 1815 such units advanced 19.5 kilometers per day, whereas in the 1960s their mechanized counterparts advanced on average only 21.2 kilometers a day; heavily engaged infantry advanced at 1.7 kilometers a day in 1815 and under 3.7 in the mid-1960s (p.250). If this were really the case, the Six-Day War would have been, at least, the Three-Week War. The provenance of the data, the coding of the variables (what is 'lightly engaged'? what size units? which wars?) all conspire to make one wary of a notion that one can meaningfully compare advance rates down to the decimal point over centuries. Heavily engaged infantry, in both the nineteenth and the twentieth centuries, sometimes advance, sometimes go nowhere, and sometimes retreat pell-mell. How useful is the term 'average' in such circumstances?

Even more dubious is Biddle's use of the 73 Easting simulation. That 1991 clash was recorded with unusual fidelity because of a fortuitous decision by officers to record radio transmissions. The recreation of the battlefield at the Institute for Defense Analyses was impressive, given the technology available in the early 1990s. But there is nothing to make one think that the battle was representative even of the First Gulf

War, let alone of modern combat in general. And one is entitled to doubt that one can prove anything about land warfare by tweaking the reality of that fight, creating notional forces and seeing how they fight, precisely because land warfare is just as complex, contingent and uncertain a business as Biddle himself contends.

There is no question that statistical analyses and simulations have an important role to play in understanding military affairs – but that is usually true at the micro-level, when attempting to understand, for example, weapons effects, optimal tactics for well-defined problems (anti-submarine warfare being the classic case) and logistical problems. But Biddle uses these tools to make his case for a theory that encompasses the entire last century of land warfare – not one analytical bridge too far, but many.

Biddle's book is intended to speak to contemporary problems. But does it, or how effectively? What modern system militaries does the US face today? Iraq is gone, and Russia (whose armed forces have yet to emerge from a decade of decay) is hardly a likely threat. North Korea? Maybe, although the American role there has shifted to one of support rather than dominance on the frontlines and, more importantly, the North Korean military may be as non-modern in its way as Biddle says the Iraqis were. China? That is much more likely, but the Sino-American strategic standoff will not occur on a disputed land frontier, but in the waters off and the air space above Taiwan, where surely technology will matter a great deal.

The land wars that the US does fight, and is fighting as this essay is written, are quite different. They are campaigns against insurgents, guerrillas and terrorists. 'America is now engaged in a potentially global war on whose outcome thousands to millions of lives may rest' (p.207) Biddle notes – but land warfare as he has defined it is not really central to that conflict. And in the two cases of Afghanistan 2001 and Iraq 2003, it is not clear that his theory explains a great deal.

And yet, with all of these reservations, *Military Power* remains an important book, in two ways.

First, despite its many flaws, the idea of 'the modern system' is a good first cut at explaining the nature of land combat in the twentieth century and beyond. If it were not quite so rigid in its anti-technological bias, if it accommodated a greater sense of historical change, it would help explain one of the important strategic phenomena of the twentieth century, namely, the rising conventional military power of the US and other democracies. There may be deeper linkages than Biddle describes (although he alludes to some of them) between advanced, liberal societies and effective military performance than historians and political theorists have acknowledged in the past. Such an analysis of the modern system – even if, as Biddle himself acknowledges, that

system may come to an end in the next decade or two – would at the very least help our understanding of military history, as well as the military present.

Biddle has made another major contribution, however, and that is by example. He concludes by citing Thomas Schelling and Bernard Brodie as contending that ‘without an academic discipline of military science, the study of the conduct of war had languished’ (p.208). Schelling and Brodie spoke as social scientists, of course, and not as military historians, who have borne more than their share of the labor of scholarship, and who have studied the conduct of war more acutely than any others in the academy. But for social scientists these two scholars were quite right. *Military Power* is a work that takes their challenge seriously, that is methodologically ingenious and exacting, and that makes arguments which may not have convinced this writer, but which may convince others, and has, in any event, enriched our understanding, if only by stimulating some of the author’s colleagues into lively disagreement. That is quite enough to make the effort of reading the book well worth the effort.