

CENSA-Notes

The Armoured Dogs of War

British responses to five years of military fatalities in Afghanistan and Iraq, and future opportunities for military suppliers

April 2007

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The point of the study

British troops have been at war in Afghanistan and Iraq for just over five years, and in this time, have suffered 177 fatalities. The Ministry of Defence has sound reasons for caring, most notably from concern for the welfare of the troops, but also to help shore up political support for the war effort, and to grant additional operational freedom to commanders chasing insurgents in either country.

Defense ministries and their suppliers around the world might consider the British experience in Afghanistan and Iraq as they prepare for campaigns that they might consider undertaking or supporting in the next decade or so. British fatalities are particularly useful to study for three reasons:

Completeness of information. The Ministry of Defence maintains excellent websites providing rather complete details of the causes of and circumstances around each fatality that British forces have suffered. Even where details have been omitted for a reason of operational security (e.g., the dead soldier's membership in the Special Air Service Regiment), the British media have been particularly adept at uncovering the details. While US forces have suffered many more fatalities, the US military services have varied in the details they have provided. The US Army has deliberately (and more successfully) obfuscated the circumstances of some fatalities to enhance security, and the US Marine Corps never provides any cause of death more specific than "as a result of enemy action."

Comparative operating environments. British forces have been at war in two rather different countries for several years, and the differences in the nature of the fighting provides opportunities to compare threats.

World (non-super) power status. Britain is a world power, but not a superpower. The two campaigns in which British troops are fighting are challenging tactically and logistically, and indeed, would be a challenging assignment for the armed forces of almost any other country in the world. The British forces waging these campaigns are well-equipped, but they have significantly greater resource constraints than American forces. Thus, the British experience may be particularly relevant for study by strategic planners in military establishments and military suppliers, both in North America and Europe.

The nature of the fatalities

British fatalities in Iraq, by cause, March 2003 through March 2007

total	Afgh.	Iraq	Cause
177	50	127	Total fatalities
67	45	22	Own goals (accidents, fratricides, etc.)
43	13	30	Hostile gunshots
39	6	33	Bombs (mines, IEDs, etc.)
15	0	15	Hostile anti-aircraft (missile and gun) fire
9	9	0	Hostile rocket-propelled grenades
1	0	1	Hostile cannon, mortar, and AT missile fire
3	0	3	Complex attacks

As shown in the table on the preceding page, British fatalities over the past five years can be grouped into seven categories:

Own goals is possibly a flippant term for non-hostile fatalities, but the moniker defines the problem. These are fatalities in which British forces or their own equipment were the cause of the death in question. The group includes aircraft accidents, traffic accidents, a single maintenance accident, accidental weapons discharges, fratricides, suicides, and a single homicide committed by a British soldier against another. Within this group, aircraft crashes have been by far the leading contributor. Almost half of these, and more than half of all non-hostile fatalities in Afghanistan, were suffered in a single incident: fourteen dead in the loss of a Nimrod MR2 of 120 Squadron near Kandahar on 2 September 2006. According to the conclusion of the subsequent RAF board of inquiry, the aircraft came down after a massive internal explosion caused by a combination of a fuel line leak and an electrical fault. Three helicopter crashes comprise the other incidents: eight dead in the crash of a USMC CH-46 Sea Knight on 21 March 2003, six dead (all Royal Navy flight lieutenants) in a collision between two Sea Kings of 849 Squadron the very next day, and one dead in the crash of a Puma of 33 Squadron at Basra International Airport on 19 March 2004. In the case of the Sea King, neither the aircraft nor its crew were British, not much can be said about remedial actions.

Hostile gunshots are the next leading problem. Almost all of these fatalities have been suffered on foot, but a few rounds have penetrated Land Rovers or killed top sentries on armored vehicles. Bombs (so-called improvised explosive devices, or IEDs) and land mines have been the next leading killer, particularly in Iraq, where building better devices seems to have become a sport amongst the insurgents. Twenty-two of the 39 fatalities in this category have occurred in the much-criticized Land Rovers, whether SNATCH models or not. Five have occurred in or atop Warrior fighting vehicles, and seven have occurred on foot.

Two losses of British aircraft to hostile ground fire contributed over eight percent of all operational military fatalities in the theater in the past five years. These comprise ten dead in the loss of a Hercules transport of 47 Squadron (RAF) on 30 January 2005, and five dead in the loss of a Lynx of 847 Squadron (RN) on 6 May 2006. In the first case, one wing of the Hercules was shredded by ground fire of a still-classified source, and fuel vapors in the wing exploded shortly thereafter, bringing down the plane. In the latter case, an insurgent's weapon (the exact nature of which is either unknown, or yet unrevealed) brought the aircraft down from a low altitude over a neighborhood in Basra.

Rocket-propelled grenades (RPGs) have become a significant problem in Afghanistan for British troops in the past year, but they seemingly remain far less a problem in Iraq. This is notable, given the fuss that has been made over the threat from RPGs, and the efforts that have gone into devising defenses against them.

Cannons, mortars, and anti-tank missiles have contributed just a handful of fatalities. This is probably not surprising, since roadside bombs, Kalashnikovs, and RPGs have been the favored weapons of the insurgents in both countries: they're portable, and proving lethal.

Complex attacks are those in which the enemy coordinated the fire of multiple categories of weapons against a single target. The analysis here assumes that RPGs and small arms can be lumped into a single category of infantry weapons. This approach looks for losses in which a bomb attack was followed with mortar fire, or in which an anti-tank missile or mine was used to stop an armored vehicle so that automatic weapons fire could be directed at whomever popped the hatches to shoot it out. The lack of fancy planning may indicate that attacks are opportunistic, or rather, that the simple tactics are working.

Actions to address the problem

By combining fatalities from related causes, we can theorize that almost half of British fatalities in Afghanistan and Iraq over the past four years could potentially have been avoided by three sets of actions. Note that I say potentially. This does not mean, by any means, that all 63 fatalities could have been avoided. The insurgents in Afghanistan and Iraq are rather more capable than that, and no amount of bullet-(or blast-) proofing can account for all contingencies. Rather, it merely points the way to three fertile areas for developing and marketing solutions for lowering fatalities in combat, at least according to recent British experience in Iraq:

Remedial actions for addressing British fatalities in Afghanistan and Iraq suffered over the past five years

#	action
24	Retrofitting better fuel safety systems in transport-type aircraft
11	Fitting better collision avoidance and defensive aids to helicopters
28	Replacing Land Rovers with more bullet- and blast-resistant vehicles
63	total

The first category comprises the losses (14) in the Nimrod over Afghanistan and the Hercules over Iraq. Both lacked explosion-suppressing foam in their fuel tanks. The second category comprises the loss of the two Sea Kings (6) in the Gulf and that of the Lynx (5) over Basra. The set of actions suggested is vague and not completely coherent, but it highlights the nature of the problem. Rotorcraft are valuable, but they are vulnerable, and the concentration of aviators and troops on board makes them lucrative targets for insurgents fighting wars of attrition. The third category comprises the losses in Land Rovers from bombs (22), bullets (4), and RPGs (2). I have not included the traffic fatalities in Land Rovers, as the Ministry has generally not specified the sorts of vehicles involved in traffic accidents, but better crash harnesses wouldn't hurt.

The good news is that the Ministry of Defence, despite whatever criticism it has endured over the prosecution of the two wars, is indeed trying. To a considerable extent, it is now spending money on the logical priorities. In July 2006, procurement minister Lord Drayson remarked that spending on 'urgent operational requirements' related to combat in Afghanistan and Iraq had thus far totaled £527 million. This has included £181 million on aircraft protection, £199 million on electronic countermeasures (ECM), and £147 million for new armored vehicles and body armor. The last category has included rather high-profile contracts for up-armored FV432 tracked armored vehicles through BAE Systems, and custom versions of the well-regarded Cougar wheeled blast-resistant vehicles from Force Protection Industries. In keeping with the Britishness

of the plans, the former have been finally (after forty years of service) termed Bulldogs, and the latter Mastiffs.

The ministry's spending is a good start. Through the end of the period to which Lord Drayson referred, British fatalities in Afghanistan and Iraq had totaled 120. Thus, this spending represents £4.4 million pounds of remedial action per fatality suffered. The most considerable shortcoming may be considered action to limit the number of fatalities from small arms fire. To some extent, this may be viewed simply as an occupational hazard of foot soldiering, and one that defies easy material solutions. Indeed, the new Osprey and Kestrel body armor sets that the Ministry has ordered to improve soldiers' chances of surviving bullets and blasts have been criticized as being too bulky and heavy to effectively use in combat. Even so, action has been taken indirectly to alleviate the infantry's burden. After criticism from some British Army officers of the performance of the RAF's Harrier force in Afghanistan, the Ministry launched an urgent procurement of targeting pods. These are scheduled to arrive by July, which is none too soon, considering that Harriers were lost in combat for a lack of such gear in 1982 (three failed passes on an Argentine position in the Falklands) and 1994 (five failed passes on a Serbian T-55 in Bosnia).

Even if the start is good, the experience of British forces in these two campaigns points to two markets which should remain robust for military suppliers for some time. By my research into planned procurements and likely emergent requirements, sales of blast-protected military vehicles should approach \$2 billion annually by 2012. Similarly, sales of helicopter defensive aids should rise in the same time frame to approximately \$0.5 billion annually.

A longer version of this study, with greater break-down detail in the study of the causes of fatalities, is available at www.jameshasik.com.

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