



THE PRIVATE MILITARY SERVICES INDUSTRY

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I. Introduction

In September 2007, 17 Iraqi civilians were shot and killed by employees of the United States-based company Blackwater.¹ The killings drew public attention to the growing use by governments of private companies in war zones, although their use has caused concern among some non-governmental organizations (NGOs), researchers and politicians for many years. Much has been written about the ethical, legal, security and governance issues raised by this practice. While this paper addresses these wider issues it does not seek to add to that literature but rather to address the less well-covered economic, industrial and commercial aspects of the wider military services industry.

Two trends led to the creation of the military services industry. The first was the large supply of discharged military personnel after the end of the cold war and the widespread demand for these personnel from both weak states facing internal conflicts and non-state actors operating in conflict zones.² The second trend was the increased privatization and outsourcing by the governments in advanced market economies of a wide range of functions that were previously carried out by military forces or defence ministries.³

The military services industry that has been created by these two overlapping trends can be viewed as part of the broader arms industry, which traditionally has been conceived of as providing military *goods* rather than *services*. However, some types of military service, such as equipment maintenance, were already an integral part of the arms industry even before the recent trend of military outsourcing. Most major military goods-producing companies have provided such services, but the above trends have generated

¹ Temple-Raston, D., 'Iraq victims, witness recount Blackwater shooting', US National Public Radio, 17 Dec. 2007, <<http://www.npr.org/templates/story/story.php?storyId=17284785>>. See also the initial US Department of State 'spot report' on the incident, 'SAF attack on COM team', 16 Sep. 2007, <<http://i.a.cnn.net/cnn/2007/images/10/01/blackwater.report.pdf>>; and US House of Representatives, Committee on Oversight and Government Reform, 'Additional information about Blackwater USA', Memorandum report from the Majority Staff of the House Oversight and Government Reform Committee, 1 Oct. 2007, <<http://oversight.house.gov/documents/20071001121609.pdf>>.

² See e.g. Wulf, H., *Internationalizing and Privatizing War and Peace* (Palgrave Macmillan: Houndmills, 2005), pp. 169–70; Singer, P. W., *Corporate Warriors: The Rise of the Privatized Military Industry*, Cornell Studies in Security Affairs (Cornell University Press: Ithaca, N.Y., 2003); and Holmqvist, C., *Private Security Companies: The Case for Regulation*, SIPRI Policy Paper no. 9 (SIPRI: Stockholm, Jan. 2005), <<http://books.sipri.org>>.

³ Dunne, J. P. and Surry, E., 'Arms production', *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2006), pp. 412–17.

SUMMARY

● The trend towards increased outsourcing of military activities has led to a rapid expansion of the military services segment of the arms industry in recent decades. Military services as defined here include technical services such as information technology and equipment maintenance, operational support such as facilities management and logistics, and actual armed 'security' in conflict zones. Some of the demand for the latter comes not from 'outsourcing' as such, but from internal conflict situations where state capacity is weak or absent. This paper discusses the background to the growth of the military services industry and presents an overview of the different types of military service, the size of the market and the companies involved.

The continuing expansion of the private military services industry raises many issues. The view that outsourcing is economically efficient can be challenged on a number of grounds, not least when these services are provided in operationally deployed contexts. The involvement of private companies in assisting military operations in armed conflict situations such as Iraq also raises serious concerns about the democratic accountability of armed forces, the status of civilian contractors in military roles, and the political influence of companies that have a vested interest in the continuation of the conflict.



a strong expansion in the military services industry. This has involved both the growth of new specialist military services companies and the increasing diversification of established arms-producing companies into military services. This expansion is reflected in the composition of the SIPRI Top 100 arms-producing companies; while the Top 100 for 1996 included only 10 companies specializing in military services, the Top 100 for 2006 included 18.⁴

The purpose of this paper is to describe and discuss the nature and scope of the military services industry, especially in the context of the outsourcing of activities by military establishments. The paper first discusses the background to the recent growth of the military services industry (section II), then describes the range of activities represented by this sector (section III) and presents available data on the size of the market for military services and on the major corporate players in this area (section IV). The paper focuses in particular on the military services industry in the USA and the United Kingdom, where the government markets for military services are largest. It discusses the economic, political, and peace and security ramifications of the private military services industry (section V) before presenting the conclusions (section VI).

The companies specializing in military services are often called private military companies (PMCs), private military firms (PMFs) or private security companies (PSCs). The usage of terms sometimes varies with the nature of the services provided or the type of customer (see section III). This paper employs a definition based on the nature of the service provided, rather than on the identity of the customer or a classification of the companies involved. Thus, military services are defined as services of a military-specific nature and purpose—that is, where the activities involved are designed or adapted specifically for a military goal. These may be activities contracted out by military establishments (armed forces and defence ministries) or military activities undertaken on behalf of other customers (e.g. other branches of government, multinational corporations, NGOs and intergovernmental organizations, IGOs).⁵

II. The development of the military services industry

The current increase in the sales of military services by private corporations began in earnest after the end of the cold war. As described by Peter Singer in one of the first comprehensive studies of the military services industry, the history of private actors in warfare is as old as war itself, but the current expansion of the market for private military services is probably the strongest since the 18th century.⁶ One of the main differences between the current private providers of military services and private military organizations in the past is the corporatization of military services. The services are now

⁴ For the number for 2006 see Perlo-Freeman, S. and Sköns, E., 'Arms production', *SIPRI Yearbook 2008: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2008), pp. 255–77. The number for 1996 does not necessarily correspond to the number in the Top 100 list as published in *SIPRI Yearbook 1998* because the SIPRI Arms Industry Database is continually updated and revised. On the SIPRI Arms Industry Database see also <http://www.sipri.org/contents/milap/milex/mex_about.html>.

⁵ The question of when armed 'security' services provided to non-military customers should be considered as military, rather than civil security, services is discussed in section III.

⁶ Singer (note 2), pp. 19, 40.



provided by private firms, operating as businesses to increase value for their shareholders, and many of them are part of bigger multinational corporations. Following Singer, a significant literature has developed, primarily focused on the legal, regulatory and governance aspects of the privatization of military services (see the bibliography).

The current increase in the market for military services is the result of several trends during recent decades that affect both demand (the use of private companies for the provision of military services) and supply (the increase in private companies engaged in the sale of military services).⁷ First, on the supply side, the reduction in military expenditure and layoffs of military personnel after the end of the cold war generated an excess supply of such personnel.

Second, there has been an increased demand for private military services due to four main interdependent factors: the changing nature of armed conflict, the increase in expeditionary operations undertaken by armed forces, changes in military technology and the loss of military expertise due to layoffs. In the post-cold war period armed conflicts have increasingly been internal armed conflicts in developing countries. Such conflicts have been of less relevance to the national security of developed countries, which have therefore been less interested in sending regular armed forces to resolve the conflict. The governments of developing countries facing such conflicts with limited military capabilities and multinational corporations or NGOs operating in conditions where state capacity may be weak or non-existent have thus turned to the private sector to fill the gap.

For military forces in developed countries the demand for personnel as a result of the 'global war on terrorism' and an increasing focus on expeditionary missions has led to increased operational pressure on personnel. Contracting out areas of work seen as non-core can give militaries a higher 'tooth-to-tail' ratio with more soldiers able to engage in operational activity. Furthermore, when the number of troops deployed on foreign military operations has been limited for political or strategic reasons (as in Iraq), troop numbers may be complemented by contracting out logistics and other support work and by the use of armed security contractors. This practice may carry perceived political advantages because the deaths of private contractors may be less politically sensitive than those of soldiers.

Changes in military technology brought about by the 'revolution in military affairs' have also created increasingly complex technical demands for the maintenance and operation of weapon systems, often requiring additional technical expertise that is most readily available from the equipment suppliers. Thus, the increased use of high technology in warfare has meant greater dependence on commercial technology and has involved private companies in the management of commercial technology.

A third factor behind the expansion in the market for military services is the overall change in economic and political thinking, with an expansion in privatization and a greater acceptance of outsourcing of government activities to the private sector. Outsourcing means the transfer of management, functions or services to an external service provider through a contractual

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⁷ Many of these trends are discussed in e.g. Singer (note 2) and Wulf (note 2).



arrangement, whether between private companies or from the public to the private sector. In the private sector, motivations for outsourcing of non-core functions include cost savings, quality improvement, access to new knowledge, expertise and skills, and risk management. Similarly, governments—in particular those most influenced by free-market economic theory—have contracted out services across the public sector, anticipating similar benefits expected by the private sector, or as a strategy to transform the relationship between the public and private sectors. Military outsourcing forms part of this trend.

Outsourcing of military functions to private industry is also part of a broader trend of privatization in the military sector. It began with the privatization of the production of military equipment, first by the sale of state military arsenals from the late 19th century, and more recently with the commercialization and gradual privatization of state-managed and state-owned arms-producing enterprises in the second half of the 20th century. Today

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the private arms industry has grown to a point where it accounts for a majority of arms production in most market economies. The privatization of research and development (R&D) came somewhat later and is still ongoing. The outsourcing of military services began in the late 1980s and has expanded significantly with the use of private contractors for the supply of military services in the military operations in Iraq since 2003. The recent increase in military outsourcing has also been explained as an effect of the post-cold war restructuring of the arms industry, in particular in the USA.⁸ The large arms-producing companies that were created as a result of concentration and specialization in the arms industry during the 1990s have continued their strategies of military specialization by expanding into military services markets.⁹ This argument is also in line with the thesis, developed in the early 1980s, that during industrial depressions, companies seek to expand their market at the expense of the public sector, pressuring government to privatize.¹⁰

III. Types of military service

There have been various attempts to identify and classify the private companies providing military services. Singer describes privatized military firms as 'business organizations that trade in professional services intricately linked to warfare'.¹¹ He divides these into military provider firms, which engage in armed force; military consultant firms, which provide training and consultancy closely linked to military operations; and military support firms, which provide support services such as logistics.¹² Herbert Wulf identifies six categories of private actors in the broader security sector: (a) private security companies, which provide security services to private citizens and

⁸ Wulf (note 2).

⁹ This process is documented and explained in Markusen, A. R. and Costigan, S. (eds), *Arming the Future: A Defense Industry for the 21st Century* (Council on Foreign Relations Press: Oxford, 1999); and Markusen, A., DiGiovanna, S. and Leay, M., *From Defense to Development?: International Perspectives on Realizing the Peace Dividend* (Routledge: London, 2003).

¹⁰ Kaldor, M., *The Baroque Arsenal* (Hill & Wang: New York, 1981).

¹¹ Singer (note 2), p. 8.

¹² Singer (note 2).



companies as well as to some governments; (b) defence producers, which engage in the research, development, production and financing of military equipment to military customers; (c) service providers, which engage in the provision of management and financing services to the military sector; (d) private military companies, which provide military services to military customers, humanitarian organizations and United Nations agencies; (e) non-statutory armed force, which are rebels, warlords and groups involved in organized crime; and (f) mercenaries, which are combat troops used by non-state actors.¹³ The consulting firm AMR International, which focuses on the outsourcing market, defines the ‘defence support services’ market as including information technology (IT), facilities management, maintenance, repair and overhaul (MRO) and logistics, and training.¹⁴

As mentioned above, this paper defines military services as services of a specifically military nature. Such services do not include purely civilian services provided to military customers, such as health insurance, cooking and cleaning—just as, for example, military goods do not include fuel supplied to armed forces. In practice, the distinction between military and non-military goods and services is difficult to draw. For example, in the case of goods, the sale of laptop computers to a defence ministry would not be considered an arms sale, but the sale of ‘ruggedized’ (i.e. modified for military use) laptops for use on military operations might. Likewise, in the case of services, it may be a fine judgement as to whether a particular service, such as an IT help desk, is essentially the same service that might be provided to a commercial company, or whether it is sufficiently integrated into operational matters as to be a military-specific service. However the key distinction is neither in the military or civilian identity of the customer nor, in the case of services, whether they were previously performed by uniformed personnel, but in the *nature of the service*—whether it is generic or military-specific. For example, military personnel might at one time have been responsible for helping soldiers find accommodation but, if contracted out to local estate agents, this would not be classed as a military service.

Military services include, on the one hand, those outsourced by the armed forces or defence ministries and, on the other hand, services of a military nature that are purchased by other parts of government and by private sector clients. Private *civil* security services in peacetime (e.g. individual, corporate and public security services, and contracted out prison services etc.) are not included. While such services may raise similar concerns to private military services, they replace or replicate the activity of civil law enforcement activities, rather than of the military. Of course, there may be circumstances in which this distinction is not completely clear.

On the basis of an analysis of company information in their annual reports, websites and public statements, table 1 presents a more comprehensive and detailed list—although tentative and non-exhaustive—of types of military service provided by private industry, illustrating the main activities in this industry.

¹³ Wulf (note 2), pp. 43–47.

¹⁴ de Guilhermier, R. and Welsh, W., *Defence Support Services Report 2007* (AMR International: London, 2007).



Table 1. Types of military service provided by private companies

Service	Description	Example companies
<i>Research and analysis</i>		
Research and development	Basic research and technology development	SAIC, CACI, Battelle, Mitre
Analysis and planning	Strategic research and consulting, threat analysis, war-gaming etc.	SAIC, Booz Allen Hamilton
<i>Technical services</i>		
Information technology services	Software development, information technology systems support, infrastructure development simulation etc.	EDS, CSC, most major prime contractors
System support	Supporting operation of military equipment and systems	Prime contractors, research companies
Equipment maintenance, repair and overhaul		Most major prime contractors
<i>Operational support</i>		
Facilities management	Integrated management of military bases	Babcock, Serco, Northrop Grumman, Chugach Alasta Corp.
Logistics	Supply to armed forces in operational conditions	Halliburton
Training	Simulation, managing firing ranges, weapon systems training	L-3 Communications, Northrop Grumman, Lockheed Martin, DynCorp
Intelligence services	Intelligence gathering, surveillance, interrogation, counterterrorism	CACI, SAIC, Booz Allen Hamilton
Weapon destruction and disposal	Destruction of weapons and unexploded ordnance clearance, clearing of firing ranges, weapon collection and destruction, demining	Washington Group, Parsons Corp.
<i>Armed force</i>		
Armed security	Protection of diplomats, company sites and civilian convoys in conflict zones	Blackwater, DynCorp, Armor Group

Sources: Company annual reports, websites, press releases and presentations.

Research and development work linked to the development of specific weapon systems, while not a good but a service, is mostly seen as part of the arms production process, and thus not as a separate military service. Somewhat distinct from this is the conduct by private organizations of basic research and technology development, previously carried out by government research laboratories but now outsourced or privatized. This is the activity referred to by the ‘research and development’ category in table 1. While the ultimate end of such basic research will mostly still be weapon systems, its immediate output is an intangible (a characteristic of services), and it forms an important aspect of the recent outsourcing trend.

‘Technical services’ is a broad category relating to the operation and support of military equipment and systems. It includes: IT services, which may be linked to particular systems or general design, implementation and support of IT infrastructure for defence ministries and armed forces; systems support (i.e. the ongoing support and operation of military systems after their entry into service); and equipment MRO. While in the past MRO activities may have been carried out by service personnel, it has long been common for equipment manufacturers to do this. It may be tied to original equipment contracts, but some companies or divisions specialize in MRO as a distinct activity.



‘Operational support’ consists of tasks traditionally carried out by service personnel, and which involve private companies directly in operational matters. Some of these come close to what might be considered ‘core’ military tasks. These include facilities management, which can involve the full-scale operation of all aspects of a military base—from administration via logistics to equipment support. In some cases ‘logistics’ is just supply chain consultancy. In other cases it includes the management and operation of procurement and supply systems for military bases and operations; training, sometimes in specific systems (e.g. with simulation software) but also operation of firing ranges or weapon training, tasks previously considered core military activities;¹⁵ intelligence services, including surveillance and counter-terrorism; and destruction and disposal of weapons (which may be in the context of humanitarian operations, regular domestic peacetime operations or active war-fighting operations, such as in Iraq).

‘Armed force’ is the ‘sharpest’ (i.e. closest to the battlefield) and most controversial end of the military services industry, consisting of private companies providing armed security to governments, corporations, IGOs and NGOs. Where such companies are employed by governments—for example, in developing countries facing insurgencies or in Iraq to protect US State Department convoys—this also represents an outsourcing of military activities by the state.

A distinction must be made, although the division may not always be clear, between civilian security services (e.g. providing security guards for a company’s premises in peacetime) and military security services, where the supply of armed force is of such a scale and intensity that the service provided may reasonably be considered as replicating the role of a conventional military force. For example, the contractors that protect US State Department convoys in Iraq operate in potentially hostile terrain against armed insurgent groups and employ heavy military equipment, such as armoured vehicles. They take on a role that would otherwise be filled by a conventional military force. Thus, this is considered a military service. Similar considerations may apply in some cases when a private sector organization operating in a conflict zone is a customer for such services.¹⁶

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In sum, the military services industry encompasses a spectrum of activities ranging from the ‘tooth’ to the ‘tail’ of military activity that may be contracted out to the private sector.

¹⁵ Cases involving the provision of combat training to overseas armed forces currently engaged in armed conflict, e.g. MPRI’s training of the Croatian armed forces during the conflict in the former Yugoslavia, may be considered as verging on mercenarism. Singer (note 2).

¹⁶ See Singer (note 2). ‘For example, firms, such as Armor Group or Southern Cross Security, which offer area defence and installation security within conflict zones, are often conceived as “passive” . . . [However] rather than being simple security guards in the domestic conception, such firms stake out the control of zones and fend off military attacks, sometimes using military-style force . . . [T]he facilities that such firms deploy to guard are often strategic centres of gravity’. Singer (note 2), p. 89.



IV. The size of the market for outsourced military services

While some attempts have been made to estimate the overall value of the market for military services¹⁷—including services provided to non-state customers and to weak governments facing internal conflict—such estimates are highly uncertain due to the lack of reliable data. Few governments publish information that would enable private military services to be identified within their overall military contracting, and companies rarely present financial data in a way that enables such distinctions. However, it is clear that the largest military service companies rely on contracts from governments in industrialized countries for the bulk of their revenues. More data are available on such contracts.

Military services represent a significant proportion of military contracts, particularly in those countries—notably the UK and the USA—where outsourcing has been most strongly pursued. In a study of the privatization of the US military sector, Ann Markusen found that by 1996 service workers accounted for nearly three out of four US Department of Defense (DOD) contract-created jobs. She concludes that ‘While large weapons systems . . . still dominate the popular image of a defense contract, services are actually the modal purchase.’¹⁸ Similar figures for more recent years are difficult to obtain, but an analysis of DOD contract awards to private companies broken

Of the total of \$295 billion in DOD prime contract awards in 2006, 38.5 per cent (\$113.4 billion) were for ‘other services’

down into main type of activities shows that the financial value of contracts for military services is significant. Of the total of \$295 billion in DOD prime contract awards in financial year 2006, only 48 per cent (\$142.2 billion) was for equipment and supplies, while 13.5 per cent (\$39.4 billion) went to research, development, testing and evaluation (RDT&E) and 38.5 per cent (\$113.4 billion) for ‘other services’.¹⁹ While some companies in the DOD list provide only civilian services, the majority of the contract value in the category ‘other services’ is provided by companies whose services to the DOD appear to be wholly or mostly military.

In other countries, there are similar trends, although they are not as marked as in the USA. The value of the ‘defence support services’ market in the UK has been estimated by a British services company to be worth £4 billion (\$7.3 billion) in 2005.²⁰ The consulting firm AMR International estimates the value of the defence support services market to be €1.7 billion (\$2.1 billion) per year in Germany, and €1.1 billion (\$1.4 billion) in Australia, the largest such markets outside the USA and the UK.²¹ According to estimates by the European Defence Agency (EDA), in 2006 outsourcing represented

¹⁷ Singer (note 2), p. 78

¹⁸ Markusen, A. R., ‘The case against privatizing national security’, *Governance*, vol. 16, no. 4 (Oct. 2003), pp. 471–501.

¹⁹ US Department of Defense, ‘100 companies receiving the largest dollar volume of prime contract awards—fiscal year 2006’, <http://siadapp.dmdc.osd.mil/procurement/historical_reports/statistics/p01/fy2006/top100.htm>, table 3.

²⁰ Serco Group, ‘Defence and Home Affairs’, Presentation to Merrill Lynch seminar on defence and home affairs, 2 Nov. 2005, <<http://www.serco.co.uk/investors/downloads/otherpresentations/>>, p. 8.

²¹ de Guilhemier and Welsh (note 14).



7 per cent of the combined military spending of EDA participating member states, or a total of €14.1 billion (\$17.5 billion).²²

The main companies providing military services to the US Department of Defense

Contracts from the DOD for services are a major source of income for many US corporations. This can be seen from the annual DOD list of prime contract awards, which divides contracts into the categories of ‘RDT&E’, ‘other services’ and ‘equipment and supplies’. Many of the contracts in the ‘other services’ category are for military-specific services, while others are for purely civilian services, such as health care, which although supplied to a military customer are not essentially different from the services provided to civilian customers. The top 30 companies receiving DOD military services contracts in financial year 2006 are listed in table 2, along with the types of services they provide. A number of the major service providers in the technical services categories also provide outsourced R&D work, for example running government research laboratories. While these companies are noted in the R&D category, the value of their RDT&E contracts is not included in the total because most of the contract value in this category in the DOD list goes to the major equipment producers and are most likely linked to specific equipment programmes.

Many of the companies in this list are also major equipment manufacturers. These companies have expanded into the military services market, chiefly in the technical services categories. However, there is significant variation between companies. While Boeing, the world’s largest arms-producing company in 2006, ranks as number 12 on this list, with just 5.4 per cent of its contracts in the service category, Northrop Grumman, which ranks fourth on the SIPRI Top 100 list, is the second biggest provider of military services to the DOD, with over a quarter of its DOD contracts in this category.²³

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²² European Defence Agency, ‘European defence expenditure in 2006’, 19 Nov. 2007, <<http://www.eda.europa.eu/genericitem.aspx?area=Facts&id=286>>. The outsourcing category is considered as a subset of equipment procurement, R&D, operations and maintenance, and construction and infrastructure. The €14.1 billion (\$17.5 billion) figure clearly does not include procurement from private arms producers, as this far exceeds €14.1 billion. The 26 participating member states of the EDA are the members of the European Union other than Denmark.

Shortly before this paper went to press, 2 reports were published as part of a British Government review of the public services industry that supplies outsourced services to the public sector generally. The reports estimate the value of the industry in the defence sector to be £10.1 billion (\$20.2 billion) in the UK in 2007/08, \$177.5 billion in the USA in 2005, €7 billion (\$8.1 billion) in France in 2005, €2.6 billion (\$3.3 billion) in Spain in 2006, and 17.3 billion kronor (\$2.3 billion) in Sweden in 2006. These figures include not only civilian services, but also all privately provided R&D—presumably including that which is directly linked to specific weapon systems and therefore excluded from the definition used here. (The US figure is calculated based on 2005 figures for overall spending but uses input–output tables from 2000 to estimate the services share. It, in fact, exceeds by some margin the total of \$143 billion for the ‘other services’ and ‘RDT&E’ categories reported by the US DOD for financial year 2005.) See Oxford Economics, ‘The public services industry in the UK’, July 2008; and Oxford Economics, ‘The public services industry: international comparison’, July 2008, both available at <<http://www.berr.gov.uk/about/economics-statistics/economics-directoratepage46937.html>>.

²³ The SIPRI Arms Industry Database (note 4). See also Perlo-Freeman and Sköns (note 4).

Table 2. The top 30 US Department of Defense contractors for military services, financial year 2006

Rank	Company	Service contracts ^a		Sectors
		Value (\$ m.)	% of total ^b	
1	KBR (Halliburton) ^c	5 978	98.6	Logistics, FM
2	Northrop Grumman	4 206	25.3	IT, systems support, FM, training, logistics, MRO
3	L-3 Communications	3 572	68.7	IT, systems support, MRO, training
4	Lockheed Martin	3 225	12.1	IT, systems support, MRO, training
5	SAIC	2 238	69.7	R&D, IT, systems support, training, logistics, intelligence
6	EDS	2 013	100.2	IT
7	BAE Systems	1 520	32.1	IT, systems support,
8	DynCorp International ^d	1 423	100.0	MRO, logistics, FM, systems support, armed security, intelligence
9	Raytheon	1 412	14.0	IT, systems support, FM, logistics, training
10	URS Corporation	1 282	93.6	Systems support, logistics
11	CSC ^d	1 195	81.2	IT, training, systems support, intelligence
12	Boeing	1 095	5.4	Systems support, MRO, logistics
13	ITT	879	34.9	IT, systems support, logistics, FM, training
14	Booz Allen Hamilton ^e	799	64.2	Intelligence
15	Chugach Alaska Corporation	587	99.0	FM
16	Parsons Corporation ^f	526	100.0	FM, UXO
17	CACI International	503	73.9	R&D, IT, logistics, systems support, intelligence
18	Shaw Group ^g	489	94.2	FM, UXO
19	Tetra Systems	486	98.4	Systems support, UXO
20	ARINC	473	97.7	IT, systems support, training
21	Jacobs Engineering	462	91.5	R&D, IT, systems support
22	Engineered Support Systems	402	55.1	Systems support
23	Honeywell	385	22.9	MRO, systems support
24	NJVC	369	100.0	IT
25	IAP World Services	364	100.3	FM
26	General Electric	361	15.5	MRO
27	Battelle	358	69.0	R&D, systems support, IT, UXO
28	Washington Group ^h	357	99.7	UXO, FM
29	Mitre Corporation	357	54.8	R&D, IT, systems support
30	VSE Corporation	348	113.7	Logistics

FM = facilities management; IT = information technology; MRO = maintenance, repair and overhaul; R&D = research and development; UXO = destruction of weapons and unexploded ordnance.

^a The contract value includes all contracts in the category 'other services', including civilian services. Thus, companies are ranked by their overall services contracts (but the table includes only companies with a significant share of military services contracts).

^b This column is for 'other services' as a share of all Department of Defense (DOD) prime contracts for each company. The reason for a figure greater than 100% is that penalties for poor performance often appear as a negative contract value in the 'equipment & supplies' contract category.

^c Halliburton's DOD contracts were through its KBR subsidiary, which was divested in 2007 and is now an independent company. The figures include contracts with the US Army to restore Iraqi oilfields, which are not included in SIPRI arms sales figures.

^d In the DOD Top 100 list, DynCorp International is listed as a subsidiary of CSC (formerly the Computer Sciences Corporation). However, DynCorp was sold to Veritas Capital in Feb. 2005, and floated on the New York Stock Exchange in May 2006. Thus, DynCorp's contract value has been deducted from that of CSC in this table. All DynCorp's contracts are assumed to fall into the 'services' category, based on information in its annual report.

^e Figures for Booz Allen Hamilton include non-military management and policy consultancy services.

^f Figures for Parsons Corporation include contracts with US Army in Iraq for civil construction (non-military work).

^g Figures for Shaw Group include contracts for managing privatized military accommodation (non-military services).

^h Figures for Washington Group include non-military disarmament activities.

Sources: US Department of Defense, '100 companies receiving the largest dollar volume of prime contract awards—fiscal year 2006', <http://siadapp.dmdc.osd.mil/procurement/historical_reports/statistics/p01/fy2006/top100.htm>, table 3; and company annual reports and websites.



The number one military service supplier is KBR, whose DOD contracts are almost all in the services category. Most of these contracts are associated with the US military presence in Iraq, through the Logistics Civil Augmentation Program (LOGCAP) III logistics supply contract and the (civil) contracts to restore Iraqi oilfields.²⁴

Other companies high on the list include specialist IT companies, such as CSC and EDS, and the research and technology company SAIC. Lower down the list are companies specializing in particular areas, such as facilities management, weapon destruction and particular areas of IT and technical services.

The majority of the companies in this list are engaged primarily in areas nearer to the 'tail' of military activities, in line with the idea that a key motive for outsourcing is to achieve a higher 'tooth-to-tail' ratio. Two key exceptions are KBR, much of whose work takes place in the context of the ongoing US military campaign in Iraq, where supplementing a relatively small troop strength would appear to be a more important driver; and DynCorp, the only company in the list that provides armed security services.²⁵ Some major companies, however, have subsidiaries engaged in activities much closer to the 'sharp' end: for example, Northrop Grumman owns the military training company Vinnell, which has a contract to train the new Iraqi Army,²⁶ while L-3 Communications owns another military training company, MPRI.

The main British companies providing military services

Military outsourcing is extensively practiced in the UK, in keeping with a broader government policy of employing public-private partnerships (PPPs). In particular, most major new public construction and investment projects are financed using private finance initiative (PFI) schemes, whereby construction and management of a project is carried out by a private contractor, with the government paying an annual management fee.²⁷ In some cases, the British Ministry of Defence (MOD) applies this approach to major military equipment programmes.²⁸ More generally, there is extensive outsourcing by the MOD across the R&D, facilities management, IT, technical services, MRO and training areas. Comparable data to the US DOD prime contract list on which table 2 is based are not available for the UK. However, some of the major British companies with a strong focus on these areas are presented in table 3.

²⁴ Revenues from these civil contracts are not included in SIPRI data for Halliburton's arms sales. Perlo-Freeman and Sköns (note 4).

²⁵ Because these contracts are with the US Department of State, they are not included in the figures.

²⁶ Centre for Public Integrity, 'Windfalls of war', Vinnell Corporation profile, <<http://www.publicintegrity.org/WOW/bio.aspx?act=pro&ddlC=64>>.

²⁷ On the British Ministry of Defence's policies and procedures for PFI projects see British Ministry of Defence, 'Private finance', 8 Mar. 2006, <<http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/FinanceandProcurementPublications/Private+Finance/>>.

²⁸ An example is the Future Strategic Tanker Aircraft programme, approved in June 2007 whereby the AirTanker consortium will produce, own and maintain 14 Airbus A330 air-to-air refuelling aircraft. AirTanker consortium, 'AirTanker', Press release, 6 June 2007, <http://www.airtanker.co.uk/press_releases/AirTanker_Financing_Competition_Press_Release_-_6_June_2007.pdf>.

Table 3. The main British companies in military services and outsourced research and development, 2007

Arms sales figures are in US\$ m. at current prices and exchange rates.

Company	Arms sales, 2006 ^a (\$ m.)	Activities
QinetiQ	1 610	The company was created from the privatization of the main British research and development agency, the Defence Evaluation and Research Agency. It continues to provide research to the MOD, as well as IT, training and systems support. Although it has some production activities, the great majority of its work falls in the research and services categories.
VT Group	1 400	The VT Services Inc. division provides facilities management, IT services and logistics to the US Department of Defense, while VT Support Services provides MRO, training and logistics services to the British MOD. The company does not provide information on the civil–military breakdown of its divisional revenues but, at a rough estimate, at least two-thirds of its estimated arms sales for 2006 fall in the services category.
Babcock ^b	760	Most of its 2006 arms sales are in the services category, especially from its management of British naval bases at Rosyth and Coulport, but it also has activities in MRO (especially naval), training and systems support.
Serco	1 170	Serco provides facilities management, training, logistics, technical services and MRO.
Armor Group	263	The company is one of the few publicly traded companies providing armed security services, including in Afghanistan and Iraq and for energy and extraction companies worldwide, as well as military training and demining services.

IT = information technology; MOD = Ministry of Defence; MRO = maintenance, repair and overhaul.

^a This is for total arms sales, not only for research and development and services.

^b The arms sales figure does not include Devonport Management Ltd (DML) as it was not owned by Babcock in 2006. DML had arms sales of \$780 million in 2006, which can be expected to be transferred to Babcock in 2007.

Sources: SIPRI Arms Industry Database; and company annual reports and websites.

Construction and management of military accommodation and bases is a major focus of PPP activity, overseen by Defence Estates, an agency of the MOD that is responsible for the management of its 240 000 hectares of property, with an annual budget of over £1 billion (\$1.8 billion).²⁹ The Defence Estates employs a mixture of PFI schemes and more regular prime contracts to outsource management of the estate, with slightly over £500 million (\$900 million) spent on rent to private sector owners, management contracts and PFI schemes in 2005–2006.³⁰ Companies involved in these outsourced facilities management contracts, directly and through joint ventures, include BAE Systems, VT Group, Babcock, Serco, DynCorp, Aspire Defence, AMEC, Interserve and the French company Sodexo. In some cases, however, these contracts are only for specific, essentially civilian, services such as accommodation or domestic services.

Where did Blackwater go?

Some of the most widely discussed companies are not listed in either table 2 or 3, for a number of reasons. Some companies operating in Iraq have their major contracts with the US Department of State, rather than the DOD,

²⁹ See the Defence Estates website, <<http://www.defence-estates.mod.uk/>>.

³⁰ Based on Defence Estates, *Agency Annual Report & Accounts 2005/2006*, HC1273 (Stationery Office: London, 10 July 2006), <<http://www.official-documents.gov.uk/document/hc0506/hc12/1273/1273.pdf>>.



whose contracts are the source for table 2.³¹ This includes Blackwater, which received \$593 million in revenues from US federal contracts in 2006,³² placing it on a level with companies halfway down the list in table 2. Second, many of the companies of greatest concern, which operate at the ‘sharp’ end of the industry, have considerably lower revenues than those listed in tables 2 and 3.³³ Triple Canopy, for example, a major US provider of armed security in Iraq, was said to have revenues of around \$170 million in 2007,³⁴ while Aegis Defence Services, a British company prominent in Iraq, was claimed by its Chief Executive, Tim Spicer, to have annual revenues of £62 million (\$113 million) in 2005.³⁵ The bulk of the revenues of the military services industry is generated by the R&D, technical services and operational support sections of the market.

The bulk of the revenues of the military services industry is generated by R&D, technical services and operational support

V. The ramifications of the private military services industry

The increasing role of private companies in providing military services is controversial. Some of the concerns raised by the practice are similar to those expressed in regard to the privatization and outsourcing of other areas of government activity, while others are specific to the military sector. An important difference between the provision of military goods and military services by private companies is that in the latter case private companies are often engaged directly on the battlefield, and thus have a direct role and interest in war fighting and armed conflict.

First, in the case of the provision of armed security by private companies, there is the issue of the privatization of violence—the fact that private companies may be engaged in applying lethal force. Wulf describes how the ‘deployment of private companies has a deep impact on how the state monopoly of violence is exercised and controlled’, as long as ‘these companies are presently not accountable to parliament or the public’.³⁶ While a key principle of modern states is that they alone have the exclusive legitimacy to exercise violence—the state monopoly of violence—the reliance on private companies for its execution increases the distance between decision making and implementation of force, creating an intermediate actor with its own private, profit-maximizing goals. This thus challenges both the ability of government to exercise direct control over the use of force and the accountability of security providers to the electorate.

³¹ Of the 182 000 individuals operating under US Government contracts in Iraq, 127 000 have contracts with the DOD. Elsea, J. and Serafina, N., US Congress, Congressional Research Service (CRS), *Private Security Contractors in Iraq: Background, Legal Status and Other Issues*, CRS Report for Congress, RL32419 (CRS: Washington, DC, 11 July 2007), <<http://fas.org/sgp/crs/natsec/RL32419.pdf>>.

³² US House of Representatives (note 1).

³³ As many of these companies are not publicly traded, primary financial data for them are less readily available.

³⁴ Falconer, B. and Schulman, D., ‘Blackwater’s world of warcraft’, Mother Jones.com, 20 Mar. 2008, <<http://www.motherjones.com/news/feature/2008/03/blackwaters-world-of-warcraft.html>>.

³⁵ Boles, T., ‘Dog of war builds £62m business’, *Sunday Times*, 5 Feb. 2006.

³⁶ The impact of privatization of war and peace on the state monopoly of violence is extensively discussed in Wulf (note 2).



The involvement of private companies in the prosecution of armed conflict creates a class of corporations with a direct vested interest in the perpetuation of such conflicts

Second, the legal status of private armed contractors is problematic.³⁷ International humanitarian law arguably covers the responsibilities of private contractors operating in war zones and defines the protections afforded them, for example in the event of capture.³⁸ However, the question of which courts might have both the authority and the ability to prosecute human rights violations by contractors may be unclear in some circumstances. The US Congressional Research Service found in 2007 that some contractors operating for the US departments of Defense or State in Iraq—which had been granted immunity from prosecution in Iraqi courts—might not come under the jurisdiction of US civil or military courts.³⁹ This was illustrated and brought to greater public attention by the Blackwater shooting case in September 2007, which led the US Congress to pass legislation in 2007 for tighter oversight of these contractors.⁴⁰

Third, the involvement of private companies in the prosecution of armed conflict—whether in an armed or a support capacity—creates a class of corporations, including some major military contractors, with a direct vested interest in the perpetuation of such conflicts. Considering the lobbying power of many arms-producing companies, this extension of the ‘military-industrial complex’ from the production of arms to the actual theatre of war may have potentially troubling implications regarding the influence of these companies on government policy.

Fourth, the involvement of civilians in military operations can generate military concerns, primarily regarding security of supply. Private employees, as opposed to soldiers, can refuse to go into dangerous situations or may simply choose to leave their jobs. Companies may go bankrupt, and profit-seeking business practices such as ‘just in time’ supply may be inappropriate in a war situation, where capacity may be urgently needed. Such concerns apply as much to companies, such as KBR, that provide logistical supplies in operational situations as to armed contractors.

The above concerns point to what is widely perceived as a general inadequacy in, or even complete absence of, national and supranational regulation of the activities of private military and security contractors. Such regulation would more clearly define their role, hold individuals and companies liable for their actions, and increase the transparency and accountability of their activities to democratic scrutiny. Various authors have proposed approaches to filling this regulatory gap, at national and regional levels.⁴¹

A further set of concerns question the claim that outsourcing brings greater efficiency and lower cost. Markusen argues that gains from public

³⁷ These issues are addressed by several authors in Alexandra, A., Baker, D.-P. and Caparini, M. (eds), *Private Military and Security Companies: Ethics: Policies and Civil-Military Relations*, Cass Military Studies (Routledge: London, 2008). See also Holmqvist (note 2), pp. 30–32.

³⁸ Gillard, E.-C., ‘Business goes to war: private military/security companies and international humanitarian law’, *International Review of the Red Cross*, vol. 88, no. 863 (Sep. 2006).

³⁹ Elsea and Serafina (note 31).

⁴⁰ The legislation was part of the year 2008 National Defense Authorization Act passed in Dec. 2007. See Conference Report for FY08 National Defense Authorization Act, <<http://www.house.gov/hasc/Conf08.shtml>>, p. 6.

⁴¹ Holmqvist (note 2); Bailes, A. J. K. and Holmqvist, C., *The Increasing Role of Private Military and Security Companies* (European Parliament: Brussels, Oct. 2007); and Krahnemann, E., ‘Security governance and the private military industry in Europe and North America’, *Conflict, Security and Development*, vol. 5, no. 2 (2005), pp. 247–68.



sector outsourcing generally depend on three conditions: meaningful competition, a clear perception of requirements by the contracting authority, and effective monitoring and oversight by the client.⁴² However, many areas of military outsourcing are dominated by a few major companies, and once a large long-term contract has been awarded it creates a ‘bilateral monopoly’ (sole customer and sole supplier) whereby the contractor is in a strong position to increase charges and lower quality. Once a service has been contracted out for a long time, the customer—in this case the armed forces—can lose the capacity to monitor the service provider.

Furthermore, a long-term contracting relationship can lead to the ‘capture’ of the contracting process by the private firms and even to corruption. The close relationship between contractor and customer can create a ‘revolving door’ between government and industry, with senior personnel often moving from one to the other, and can result in a high degree of lobbying power for firms intimately connected with government activity.

Some of these factors can be observed in one of the largest and most controversial recent cases of military outsourcing: that of Halliburton, through its now-divested subsidiary KBR, for a major logistics contract (LOGCAP III) for deployed US forces worldwide, in particular in Iraq. According to a 2005 US congressional report, government auditors from the Defense Contract Audit Agency had identified \$1.2 billion of ‘questioned and unsupported costs’ charged by Halliburton to the US Army under LOGCAP in Iraq.⁴³ While the LOGCAP III contract was competitively awarded, once agreed it created an open-ended contract with specific ‘task orders’ then awarded for each item of work. Thus, Halliburton enjoyed a monopoly position for the ongoing work once the contract was signed. The open-ended nature of the contract also violates the principle that a clear perception of requirements by the customer is a prerequisite for successful outsourcing. The report also criticized the lack of oversight of the contract, largely due to severely inadequate staffing for the purpose.

Government auditors identified \$1.2 billion of ‘questioned and unsupported costs’ charged by Halliburton to the US Army

The US Government Accountability Office (GAO) has conducted a number of studies on the performance of logistics contracts in Iraq (under LOGCAP) and elsewhere and has found serious deficiencies in the planning, monitoring and oversight of the contract in Iraq.⁴⁴

Some of the problems arising with LOGCAP and other contracts related to the military operations in Iraq may in part be attributable to the difficulties of managing—by whatever means—rapid surges in military procurement. During 2007 a successor LOGCAP IV contract was being negotiated, which sought to address some of these problems. However, the new system has also

⁴² Markusen (note 18), p. 477.

⁴³ US House of Representatives, Committee on Government Reform Minority Staff Special Investigations Division, ‘Halliburton’s questioned and unsupported costs in Iraq exceed \$1.4 billion’, 27 June 2005, <<http://oversight.house.gov/story.asp?ID=880>>. The \$1.4 billion includes \$200 million under the Restore Iraqi Oil (RIO) contract.

⁴⁴ US Government Accountability Office (GAO), *DOD’s Extensive Use of Logistics Support Contracts Requires Strengthened Oversight*, GAO-04-854 (GAO: Washington, DC, July 2004), <<http://www.gao.gov/new.items/d04854.pdf>>; and US Government Accountability Office, *High-Level DOD Action Needed to Address Long-standing Problems with Management and Oversight of Contractors Supporting Deployed Forces*, GAO-07-145 (GAO: Washington, DC, Dec. 2006), <<http://www.gao.gov/new.items/d07145.pdf>>.



been criticized, and the desirability of outsourcing logistical support for military operations at all remains under question.⁴⁵

The problems—economic, political and military—associated with outsourcing may be particularly acute in the context of complex operational deployments such as those in Iraq.⁴⁶ Some of these may also apply to activities further from the battlefield. For example, it has been suggested that the increased outsourcing of military R&D has not only eroded the ability of in-house military laboratories to conduct research, but also their ability to evaluate and monitor the research of private sector contractors.⁴⁷ In the case of major capital investment projects—frequently the subject of private finance initiatives in the UK—the transference of risk to the private sector, which is one of the main motivators of PFIs, can prove illusory. In the case of major cost overruns, the government may be in a position where it is preferable for it to bear the extra costs rather than to face the collapse of its private sector partner.⁴⁸ Claims of superior quality or value from the private sector are also open to question. For example, the US Navy–Marine Corps Intranet (NMCI), designed and operated by EDS, has reportedly generated considerable frustrations among its users due to systems failures and service delays and has acquired numerous nicknames, such as ‘No More Contracted Infosystems’. ‘I’ve been NMCI’d!’ is reportedly a frequent lament of the system’s users.⁴⁹

It has been suggested that the increased outsourcing of military R&D has eroded the ability of in-house military laboratories to evaluate and monitor the research of private sector contractors

In May 2007 the US GAO published an overall assessment of outsourcing of operations and maintenance (O&M) services from the DOD.⁵⁰ Its task was to assess the impact of the increase in outsourcing of O&M services on the rapid increases in O&M expenditure that have taken place since 2001. It concluded that there was insufficient data to assess whether outsourcing had served to limit or exacerbate these cost increases.

Overall, the efficiency of outsourcing is likely to vary with the extent to which the key conditions—competition, clarity of requirement and effective monitoring—are present. In some cases, for example technical support for complex systems, the company that designed the systems may simply be in a far better position to provide the activity than the military customer, to a degree that outweighs other concerns. However, there are many grounds, both theoretical and from actual experiences of outsourcing, for questioning the claim that private provision necessarily entails better value.

⁴⁵ See May, R., ‘LOGCAP only gets worse’, *Defence Monitor*, vol. 36, no. 4 (July/Aug. 2007), pp. 4–5.

⁴⁶ In addition to KBR/Halliburton several other private contractors operating in Iraq have been subject to criticism. See e.g. McDonald, J. and Rosen, I., ‘Billions wasted in Iraq?’, CBS News, 12 Feb. 2006, <<http://www.cbsnews.com/stories/2006/02/09/60minutes/printable1302378.shtml>>; and Cray, C., ‘The 10 most brazen war profiteers’, *Alternet*, 5 Sep. 2006, <<http://www.alternet.org/waroniraq/41083/>>.

⁴⁷ DeYoung, D. J., ‘The silence of the labs’, *Defense Horizons*, no. 21 (Jan. 2003), pp. 1–8.

⁴⁸ An example of this in the military sector is the construction of nuclear submarine facilities at the Royal Devonport Dockyard by DML in the late 1990s. See British National Audit Office, *Ministry of Defence: The Construction of Nuclear Submarine Facilities at Devonport*, Report by the Comptroller & Auditor General, HC90 Session 2002–2003 (Stationery Office: London, 6 Dec. 2002).

⁴⁹ Hoffman, M., ‘Even “satisfied” customers find frustrations in NMCI’, *Defense News*, 10 Dec. 2007, p. 15.

⁵⁰ US Government Accountability Office (GAO), *Trends in Operations and Maintenance Costs and Support Services Contracting*, GAO-07-631 (GAO: Washington, DC, May 2007), <<http://www.gao.gov/new.items/d07631.pdf>>.



VI. Conclusions

Private companies play an increasing role in providing a range of military services, much of which represents activities outsourced by the armed forces and defence ministries. This rapid expansion began in the early post-cold war period but has been reinforced by the Iraq conflict.

While military outsourcing is most widespread in the UK and the USA, and military services represent a financially significant segment of the British and US arms industries, the same trend is also present in other countries. Military services cover a range of activities—including research and analysis, technical services, operational support and armed force—thus expanding the scope of the arms industry into activities close to, or even on, the battlefield.

Services (military and civil) constituted 38.5 per cent (\$113 billion) of all US DOD contracts awarded in 2006.⁵¹ The major private military services companies in the USA include both major equipment producers and specialist service firms. Most of the firms with the largest service contracts are engaged in activities such as research, technical support and operational support activities, including facilities management or logistics.

The continuing expansion of the private military services industry raises many issues. The view that outsourcing is economically efficient can be challenged on a number of grounds, not least when these services are provided in operationally deployed contexts. The involvement of private companies in assisting military operations in armed conflict situations such as Iraq also raises serious concerns about the democratic accountability of armed forces, the status of civilian contractors in military roles, and the political influence of companies that have a vested interest in the continuation of the conflict.

The view that outsourcing is economically efficient can be challenged on a number of grounds

Bibliography

- Avant, D., *The Market for Force* (Cambridge University Press: Cambridge, 2005).
- Bailes, A. J. K. and Holmqvist, C., *The Increasing Role of Private Military and Security Companies* (European Parliament: Brussels, Oct. 2007).
- Bryden, A. and Caparini, M. (eds), Geneva Centre for the Democratic Control of the Armed Forces (DCAF), *Private Actors and Security Governance* (LIT Verlag: Vienna and Berlin, 2006), <<http://www.dcaf.ch/publications/kms/details.cfm?lng=en&id=25736>>.
- Chesterman, S. and Lehnardt, C. (eds), *From Mercenaries to Market: The Rise and Regulation of Private Military Companies* (Oxford University Press: Oxford, 2007).
- Cilliers, C. and Mason, P. (eds), *Peace, Profit or Plunder?: The Privatisation of Security in War-torn African Societies* (Institute for Security Studies: Pretoria, 1999).
- Gillard, E.-C., 'Business goes to war: private military/security companies and international humanitarian law', *International Review of the Red Cross*, vol. 88, no. 863 (Sep. 2006), pp. 525–72.

⁵¹ US Department of Defense (note 19).



- Gumedze, S. (ed.), *Private Security in Africa: Manifestations, Challenges and Regulation*, Institute for Security Studies (ISS) Monograph Series no. 139 (ISS: Pretoria, Nov. 2007).
- Holmqvist, C., *Private Security Companies: The Case for Regulation*, SIPRI Policy Paper no. 9 (SIPRI: Stockholm, Jan. 2005), <<http://books.sipri.org>>.
- Krahmann, E., 'Security governance and the private military industry in Europe and North America', *Conflict, Security and Development*, vol. 5, no. 2 (2005), pp. 247–68.
- Markusen, A. R., 'The case against privatizing national security', *Governance*, vol. 16, no. 4 (Oct. 2003), pp. 471–501.
- Percy, S., International Institute for Strategic Studies, *Regulating the Private Security Industry*, Adelphi Paper no. 384 (Oxford University Press: Oxford, 2006).
- Singer, P. W., *Corporate Warriors: The Rise of the Privatized Military Industry*, Cornell Studies in Security Affairs (Cornell University Press: Ithaca, N.Y., 2003).
- Stoker, D. (ed.), *Military Advising and Assistance: From Mercenaries to Privatization, 1815–2007* (Routledge: London, 2008).
- Wulf, H., *Internationalizing and Privatizing War and Peace* (Palgrave Macmillan: Houndmills, 2005).

Abbreviations

DOD	Department of Defense
EDA	European Defence Agency
GAO	Government Accountability Office
IGO	Intergovernmental organization
IT	Information technology
LOGCAP	Logistics Civil Augmentation Program
MOD	Ministry of Defence
MRO	Maintenance, repair and overhaul
NGO	Non-governmental organization
O&M	Operations and maintenance
PFI	Private finance initiative
PMC	Private military company
PMF	Private military firm
PPP	Public–private partnership
PSC	Private security company
R&D	Research and development
RDT&E	Research, development, testing and evaluation



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THE PRIVATE MILITARY SERVICES INDUSTRY

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