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British Army Logistics and Contractors on the Battlefield

David M Moore and Peter D Antill

Introduction

The threat that was presented to the Western Alliance by the Soviet Union and Warsaw Pact during the Cold War forced the United Kingdom to concentrate scarce resources on providing combat systems that delivered the maximum deterrent value. This unfortunately, tended to be at the expense of combat service support (CSS), forcing the British Army to rely on the secure lines of communication through the Low Countries and the prepositioning of stocks both forward and in the rear areas. CSS was characterised by a cumbersome acquisition process and the lack of awareness of the total cost of acquisition, storage, distribution and ultimately, disposal. Even so, such reliance on the 'shop-window' of combat capability was in many ways a false economy, particularly when it came to actually using those forces in the Gulf War:

"At the outset of Granby, what had long been known within the confines of the Army became more general public knowledge: that many of the Challenger I tanks were not battle-worthy. Challenger I availability in 1990 in BAOR was just 23 per cent – at any one time over three quarters of the tanks were under repair or otherwise out of service." [1]

The collapse of the Warsaw Pact and Soviet Union has forced the West to focus on force projection, expeditionary operations and manoeuvre warfare, given that there is no longer a direct threat to Western Europe. This move from a just-in-case approach to nearer a just-in-time one with a greater emphasis on the ability of commanders to more accurately predict their requirements will be dependant on total asset visibility and guaranteed lines of communication. It has proven difficult for the Armed Forces, particularly the Army, to adjust to the new situation:

"The British Army is primarily trained and equipped to fight in continental Europe . . . . The Army's logistic system is also, quite properly, optimised to fight on the North German Plain – a battle in which the opposition has been assumed to be coming at us; a battle in which we would fight in prepared positions over well-known ground, using supply routes which have been reconnoitred and rehearsed hundreds of times."[2]

In working to reduce the risks still inherent in trying to provide such operational logistic support, the military should remain aware of the potential contribution that industry can provide. Traditionally, the military has had a less than enthusiastic attitude about the potential benefits to be gained from industry. Contracts were often characterised by a confrontational attitude but are now moving to a far more positive stance and a co-operative relationship where both risks and benefits can be shared. There is a continued importance in gaining value for money but contracts should be of a longer-term nature with an in-built flexibility to allow the contract between the military and service provider to mature and evolve. The best

[1] House of Commons Defence Committee. *Implementation of the Lessons Learned from Operation Granby*, HC43 / 928, Fifth Report, Session 1993 – 4, 25 May 1994, paragraph 39.
[2] Hayr, Sir Kenneth. "Logistics in the Gulf War", *RUSI Journal*, Autumn 1991, pp. 14 – 19.

contracts are built on trust and co-operation and an understanding of the difficulties faced by both parties.

The Strategic Defence Review (SDR), published in July 1998, aimed to "remodel Britain's defence policy and Armed Forces to meet the challenges of the next century. The government's aim is strong, modern and cost-effective defence, now and for the longer term".[3] It is very likely that there will be a continuing, if not increased contribution to international peacekeeping and humanitarian intervention operations (as Bosnia and Kosovo have shown), some of which may be of considerable duration and logistically very challenging. The size and scope may also vary from a battalion-sized battlegroup to a full division (as per the Gulf War), although the review outlined the requirement that the Armed Forces should be able to carry out two medium-sized contingency operations at the same time. It also highlighted that the Armed Forces will need to go to the operation rather than have the operation come to them, that would have been in the case of a Warsaw Pact invasion of Germany. The areas that they may have to deploy to are unlikely to have the same level of infrastructure as those of Western Europe and the deploying forces may "have to sustain non-warfighting operations for indefinite periods whilst retaining the ability to respond to other contingencies. This calls for rather different force projection capabilities than we have needed in the past."[4]

Joint Rapid Reaction Forces have now been set up[5], building on the Joint Rapid Deployment Force created in 1996. This has been organised as a pool, from which a task organised joint force can mount short notice medium size operations. As such, sustainability, which can be defined as "the ability of a force to maintain the necessary level of combat power for the duration required to achieve its objectives"[6], has grown in importance and necessity now that the Cold War is over. The difficulties involved in achieving the right level of sustainability should not be underestimated as "setting appropriate levels of logistic sustainability is a difficult task in an environment where there is no apparent adversary, and where the new risks are less clearly defined than before".[7]

With the 'peace dividend' bringing a reduction of the defence budget by some 23% in real terms and the British Armed Forces being cut back by a third, new operational imperatives have placed increasing strain on the Armed Forces, particularly in their ability to sustain overseas operations.[8] This is particularly so with the creation of the Defence Diplomacy mission. A strong element of this would include the traditional 'showing the flag' visits by the Royal Navy and Royal Marines.[9] This paper will examine British Army logistics, the nature of future conflict and whether the increased use of contractors will be of benefit to the British Army, how they could help with the problems of a shrinking budget and overstretch, and what issues still need to be addressed.

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[3] Ministry of Defence. *The Strategic Defence Review*, The Stationary Office, London, July 1998, p. 53.
[4] *Op Cit. The Strategic Defence Review*, Supporting Essay 6, p. 4.
[5] *Op Cit. The Strategic Defence Review*, pp. 23 – 26. Also: Ministry of Defence. *What do you know about … Joint Rapid Reaction Forces*, C200, DISN-Pubs 1, 8/98.
[6] White, M S. "How Can We Meet the Logistic Requirements of Forces Deployed at Some Distance from the UK?", *RUSI Journal*, October 1996, p. 32.
[7] Saunders, D J. "UK Logistics Planning – The Way Ahead", *RUSI Journal*, December 1992, p. 24.
[8] *Op Cit. The Strategic Defence Review*, p. 6.
[9] *Op Cit. The Strategic Defence Review*, pp. 14 – 15. Also: Ministry of Defence. *Defence Diplomacy*, C400, DISN-Pubs 3, 3/99; Ministry of Defence. *What do you know about … Defence Diplomacy*, C200, DISN-Pubs 1, 2/99.

British Army Logistics

Throughout the history of warfare, it has always been the more competent commanders that have recognised the importance of logistics to an operation. For logistics is not merely the amassing and storage of materials and equipment, but also the timely and balanced arrival of those resources to the very forces that require them. An army's logistic system is its link with the home industrial base and has been described as "the bridge connecting a nation's economy to its warfighting forces."[10] However, it has been the grand armoured thrust, the daring commando raid and the massed strategic air offensive that has always captured the public's imagination. The harrowing trek of a convoy of supply trucks, the desperate strategic airlift of food and medical supplies or the long awaited arrival of the roll-on / roll-off cargo ship with ammunition and fuel rarely do. "Finally, I have no reason to believe that logistics will ever have much military sex-appeal, except to serious soldiers, but this book is written in the hope that I am wrong."[11]

During the Cold War the main threat to NATO and the UK was from the Soviet Union and the Warsaw Pact. NATO adopted the strategy of a positional defence in Germany combined with 'flexible response'[12] and the forces in the Central Region were configured what has been called a 'layer cake'.[13] As a result, 1st British Corps was stationed on the North German Plain close to its predetermined deployment positions (between the 1st German and 1st Belgium Corps), and had developed a plan to counter a Soviet attack, whose capabilities, doctrine and routes would be relatively well known, and which had been practised and refined over the decades.[14] In essence, the plan called for NATO forces to inflict maximum casualties and delay the advancing Warsaw Pact forces (known as 'Forward Defence'[15]) in order to allow reinforcements from the United Kingdom and the USA (such as the Reforger units) to be transported to Germany.

The logistic implications of a clash between these two giants would have been enormous. Despite its "economic weakness and commercial and industrial inefficiency, the Soviet Union possessed mighty and highly competent armed forces. Indeed, they were probably one of the few efficient parts of the Soviet Union."[16] Also, despite its high ideals, NATO had a number of drawbacks, the most serious of which was its lack of sustainability. In a major shooting war, so long as the Soviets performed reasonably well, NATO would probably have lost due to the fact it would have run out of things with which to fight. In a static war, logistics is somewhat simpler in the modern age, as ammunition can be stocked and fuel expenditure is limited (thus allowing one to stock that as well). In a highly mobile war, the main consumable used will be fuel rather than ammunition, but in a highly attritional conflict, the reverse will apply. Ammunition will be used to a larger extent than fuel.[17]

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[10] *Op Cit*. White, M S. p. 31.
[11] Thompson, J. *The Lifeblood of War – Logistics in Armed Conflict*, Brassey's (UK) Ltd, London, 1991, p. xvi.
[12] The key element of NATO strategy, that of "flexible response", was adopted in 1967, and took over from "massive retaliation". This strategy demanded a balance of conventional and nuclear forces sufficient to deter aggression, and should deterrence fail, be capable of actual defence.
[13] Evans, M. 'NATO's Evolving Concept for Armoured Warfare on the Central Front: Implications for the British Army', *British Army Review*, August 1991, pp. 22 - 27.
[14] Edmonds, M. 'British Army 2000 – External Influences on Force Design', *SCSI Occasional Paper No. 21*, HMSO, 1996, p. 60 - 1.
[15] *Op Cit*. Evans, M.
[16] *Op Cit*. Thompson, Julian. p. 289.
[17] *Ibid*. pp. 291 – 292.

The foundations of the current British Army logistics doctrine is distinctly centred on the previous planning for the NATO / Warsaw Pact confrontation. Resupply is still conducted by a hierarchical multi-layered system of stock holding, which has inventory management at each level, and provisioning in the previous level. Material is in essence pushed forward, thus refilling the following level of stockholding to a pre-planned level.[18] Such a system involving a 'back-to-front' process invariably has costs associated with storage, the amount of stock held, transportation onto the next level and double handling.[19]

The current system is thus a traditional linear or echelon one, consisting of lines of support, which are known as the first, second, third and fourth line. The first, second and third lines are provided by logistic units, which have deployed on the operation being carried out, and are either organic to the combat units themselves or attached to higher headquarters. For example, the first line would be the battlegroups themselves (battalion), second line would be the parent formation (brigade or division), and third line would be at the theatre headquarters (Joint Force Headquarters or Combat Service Support Group). Finally, the fourth line is the United Kingdom Home Base (Logistic Support Base Area) and typically involves the MoD, non-deployable storage locations, defence agencies and the defence industrial base. The Home Base is responsible for the construction of fighting power, the sustainment of that fighting power, as well as its final rehabilitation after use.[20] Material that arrives in the theatre of operations at the Point of Entry (POE) will be held in the inventory of the Rear Support Group (RSG) and then moved forward as requirements dictate, by 3rd and 2nd line transport. Such a technique utilises both push and pull elements in that stock is initially 'pushed' forward with regard to the out-load plan being used, and then distributed as required. It is however, firmly based on the Just-in-Case philosophy in order to minimise risk given the lack of accurate information about expenditure rates that can be passed down the line. While many elements of the British Army's logistic system have been rationalised, its overall structure is still a product of the Cold War, and is still echeloned in nature. "The requirement for a review of logistics practices has been given added impetus by the change in emphasis away from massed armoured warfare towards intervention operations by rapid deployment forces".[21]

Contractor Logistic Support

With the end of the Cold War the British Army has moved away from static defence and is increasingly looking at expeditionary warfare. Thus the deterrent value of a weapon system is no longer the most important factor, it is whether that weapon system can actually be deployed, used and supported adequately. Logistic support must now be responsive to the needs of the combat forces, and any ineffective or obsolete parts of the logistics system must be dealt with as they ultimately reduce the warfighting capability of the British Army.[22] The use of contractors *per se* is not a new one, indeed "throughout modern history there has been a greater or lesser use of contractors with various degrees of success."[23] But why indeed

[18] Headquarters, Quartermaster General. *Material Support Strategy II (Version 2) Draft Paper*, D Mat Sp (A), October 1998, p. 1.
[19] Headquarters, Quartermaster General. *Material Support Strategy Paper*, D/DMSD(A)97/101 MSD 1a, 24 June 1994, p. 3.
[20] The Royal Logistic Corps. *Logistic Support Doctrine*, Volume 1, Pamphlet 1, Army Code Number 71570, 1997, pp. 5-3 and 5-4.
[21] Hammick, Murray. 'Logistics comes of age', *International Defence Review*, July 1992, pp. 665 – 673.
[22] Evans, Brig P A D. 'Contractors on the Battlefield', *Royal Logistic Corps Review*, 1999, pp. 1 – 3. Also: Evans, Brig P A D. 'Contractor Support: A View from Land Command', *Focused Logistics II Briefing*, Royal United Services Institute, 7 / 8 February 2000.
[23] Smart, Peter. 'Support to the Front Line', *RUSI Journal*, February 2000, pp. 67 – 70.

should we increase the use of contractors in our operations? SDR noted that there were "weaknesses in our ability to sustain forces overseas, particularly where local facilities are limited" and stated the intention to "where appropriate, we will consider the use of contractors to assist with logistic support".[24] There are several additional reasons[25]:

- Overstretch – this is a continuing problem for our armed services, and with the Kosovo peacekeeping operation, the British Army has faced some of the highest levels of operational deployment since the Second World War. In many instances, logistics and support troops may well become the limiting factor on any operation, and contracted support could well ease the burden. Such a contracting out of services would offer flexibility, help with surge capacity and also release those assets, in *rouelment*, that are still Army owned to be available for additional operations that may come along in the mean time.

- Financial – with declining budgets, the MoD has to try and gain as much value for money in logistics as possible, and concentrate scarce resources on procuring expensive and limited combat systems, along with the troops to man and maintain them.

- Lifecycle Equipment Costs – Contractors are now under pressure to be involved in the complete lifecycle of their equipment, especially in the very high-tech areas. It would be advantageous for the MoD to involve contractors in the complete lifecycle of a piece of equipment so that they could build a greater level of reliability into systems in order to reduce the maintenance burden. By reducing the amount of maintenance needed, it logically follows that the amount of spare parts that have to be moved through the supply chain can thus be reduced. Correspondingly, the number of faulty parts moving back up the chain is reduced as well. As an example, during the Gulf War, the Challenger 1 main battle tank was found initially to have a poor Mean Time Before Failure rate, around 723 kilometres, instead of the planning figure of 1,235 kilometres.[26] Thus as the Challenger was substantially less reliable than anticipated, then far more spares had to be moved down the supply chain, more man hours of work had to be put in to fix the problems and more faulty parts had to move back up the supply chain. In reducing the amount of inventory held in the combat area, reducing the throughput in the supply chain, and having a greater visibility in the supply chain, it would be possible to reduce the logistics infrastructure. Less inventory requires less people to maintain it and less space to store it, as well as fewer troops to guard it in the theatre of operations. Fewer consumables will mean less personnel and transport assets will be needed to move these items (which in turn will mean fewer consumables will be required to keep those assets running).

- Host Nation Support – during the Cold War the provision of Host Nation Support (HNS) was virtually guaranteed (by the Federal Republic of Germany) in the event of a Warsaw Pact invasion. As shown in recent operations and what will be true for future ones is that it is unlikely that the British Army will deploy into an area that has the same level of infrastructure, have a Host Nation that is willing to provide the same level of HNS, or even have a Host Nation (as in Kosovo). There are some gaps in the Army's capability

[24] Cited in Cowan, General Sir Sam. 'Perspectives on Current MoD Policy', *RUSI Journal*, February 2000, pp. 65 – 66.
[25] *Ibid*. Also *Op Cit*. Evans, Brig P A D. 'Contractors on the Battlefield'.
[26] Moore, David M. Bradford, Jeffrey P. Antill, Peter D. 'The Role of Logistics in Modern Warfare: Operations Desert Shield and Desert Storm', *RMCS Research Paper*, 1999, p. 14.

just at the moment which are problematic (such as port operations and water supply) and must be addressed one way or another.

- Changes in Warfare – Many operations, particularly peacekeeping ones, which involve extended duty in static locations (such as Bosnia and Cyprus) thus create a need for accommodation and services that are up to a reasonable level if the troops are to stay there for a long time. This can also be influenced by the possible intervention of news cameras - the 'CNN factor' – that has an effect on the public's perception on how our soldiers are treated.

If overall, we can assume that the role of contractors will increase, if only gradually, then what are the factors that are required for success, and what policy issues still remain to be answered? Firstly, while a lot of policy work is beginning to take shape, the key to any success in using contractors on the battlefield is their involvement in contingency planning. "This is absolutely fundamental to the success of contracted support. Historically, when contractors have been deployed on operations, and a lot of us have been involved in it, it has been on a pretty *ad hoc* and frankly risky basis."[27] This will hopefully eliminate the risk of misunderstanding and misalignment, and hence mistrust, lack of confidence and thus a failure of support. Planning will help each party to understand where the other is coming from, what their needs are and how each can benefit the other. Secondly, it is probable that "continued budgetary pressure will force the military to outsource all non-core business to industry and consider more imaginative ways of reducing overheads".[28] This will mean the outsourcing of a great deal of what is generally described as administrative functions, usually considered in terms of the activities that take place in the United Kingdom Home Base. The real difficulty is in the correct assessment of what level of stock is necessary for future operations. The three criteria outlined in SDR was that the armed services should only keep that stock which cannot be provided within agreed preparedness times by industry, such stock should only be bought for deployable forces and non-deployable assets should be used to support those elements that are deployed. Another difficulty is that what exactly should the Army keep as a strategic asset? What assets should be Army owned and operated, Contractor owned and Army operated, Army owned and contractor operated and finally contractor owned and operated? Obviously as you work down the list, risks increase in that industry may fail to meet its obligation, although this may not happen in reality.

The deployment of contractors to a theatre of operations is a more difficult task, as it will be incumbent on the operational commander to evaluate when the time is appropriate to start handing tasks over to them. It is assumed that the environment in the theatre of operations should be relatively benign when contractors start to replace military assets, but what exactly does 'relatively benign' mean and how can the military insure itself against contractors being exposed to sudden and unexpected danger? It may well take up to thirty days to make such a judgement, and so it would make sense to retain sufficient military capability to be able to conduct operations (up to whatever scale is necessary) for the first thirty days. It must be remembered that our armed forces lack the immediate resilience to cope with the possible consequences of a high level of risk – that is, a large number of casualties. Should there be any restrictions on contractors hiring local labour and what status should these personnel be afforded? If contractors do increase in number on the battlefield then the servicemen and women involved will be able to make direct comparisons to their counterparts in industry.

[27] *Op Cit*. Smart, Peter.
[28] *Op Cit*. Evans, Brig P A D. 'Contractors on the Battlefield'.

The armed forces must not underestimate the effect on morale and discipline if their personnel see the contractor responding to different codes of conduct and enjoying a better quality of life in a theatre of operations.

Sponsored reserves have been created (in the 1996 Reserve Forces Act) and it is likely that the Army will insist that a certain number of contractor's employees must be sponsored reservists in the future. Sponsored reserves will be similar to the Territorial Army, enjoying similar training, conditions and benefits, but their service will be conditional in that it will be similar work to their day-to-day jobs. The advantage of this is that they will be able to be mobilised by the Secretary of State for Defence and become service personnel once deployed.[29] Additionally, the individual's job will be guaranteed once they return and it should ease training requirements in that they should already be qualified at the job they will be doing. The concept has been criticised however, as "tendering for mercenaries"[30], few companies will be able to win the tenders and they will be veiled in secrecy, and if the sponsored reserve makes a mistake, who takes the blame, the MoD or private company? What status will the sponsored reservist have as regards the Hague and Geneva conventions, and what about those contractor personnel that are not sponsored reservists? It will be important for the military to accurately define what the peacetime training for these reservists will be if they to play their role, and possibly fight and survive on a future battlefield. The employment of these reservists will be dependent on the graduated readiness plan and how they fit into it and whether the contractor can respond to these short notice requirements.

Future Conflict

Logistics has finally come of age. Rather than being considered merely a support function it is now recognised as a force enabler, or even multiplier. Logistics can be considered "a key determinant in its own right, a crucial element of effective planning and an essential element of combat power".[31] Future operations are likely to be joint in nature and involve a multinational coalition of some type. As such, the UK's logistic system will have to be modified to be as flexible as possible to cope with such situations.

The future battlefield (or battlespace if one includes air, sea and space forces) is likely to be more complex, more dynamic, and non-linear. The lower force densities (than that of a NATO-Warsaw Pact confrontation or even the Gulf War) means that there is less likely to be a well defined 'frontline' or 'rear area', and will involve manoeuvre warfare and deep battle. "The battlespace is changing as we move away from the linear battlefield of the Cold War to a non-linear, fragmented battlespace. It is envisaged that high intensity conflict would take place in three dimensions, day and night, in all weathers and 24 hours a day."[32] Even relatively minor conflicts could have repercussions for the rest of the international community with efforts to monitor, prevent or manage conflicts. The spectrum of future conflict is now seen as a continuum in Figure 1:[33]

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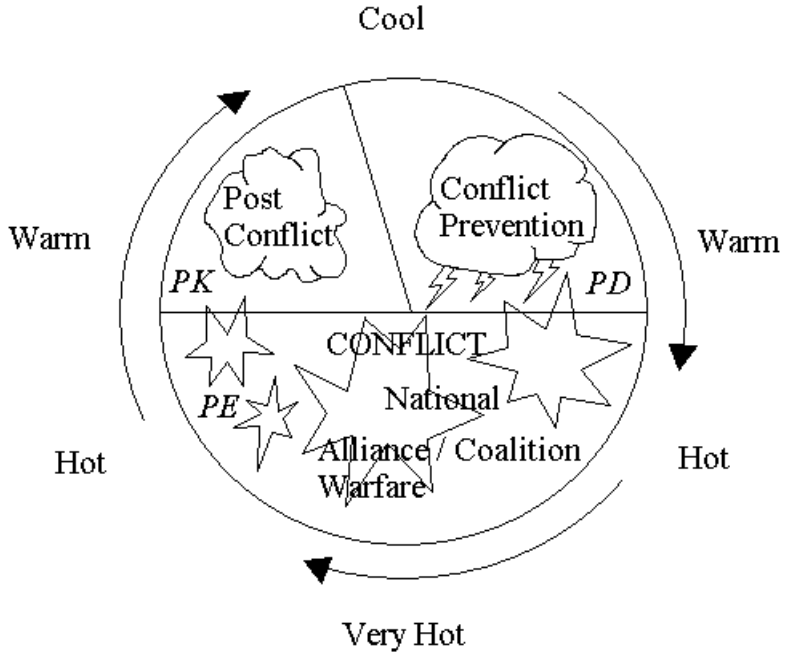
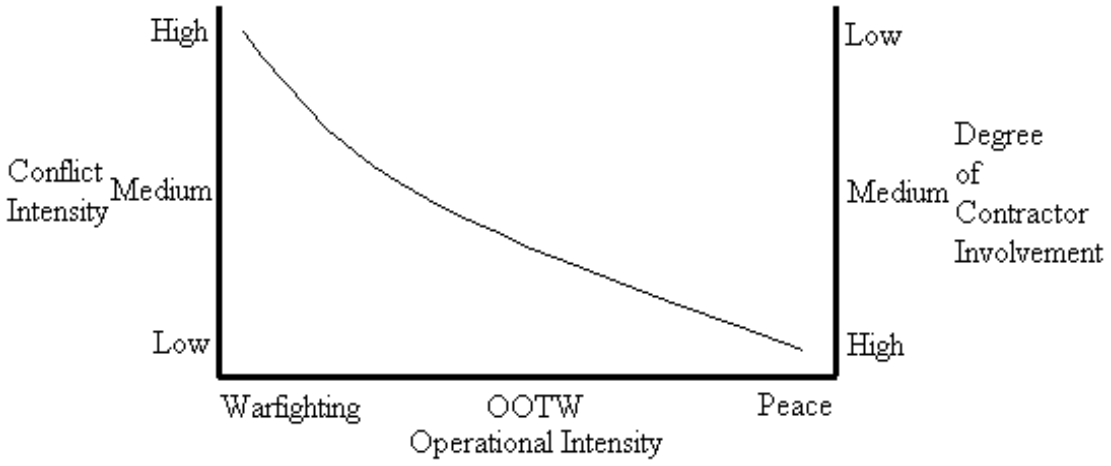
[29] *Op Cit*. Evans, Brig P A D. 'Contractors on the Battlefield'.
[30] David Luxton, cited in Martin, Daniel. 'Sponsored Soldiers', *Defence Review*, Autumn 1999, p. 28.
[31] United Kingdom Doctrine for Joint and Multinational Operations. *Joint Warfare Publication 0-10*, Interim Edition, 1998, p. 8-1.
[32] Lewis, J. *Support to the Future Army*, Supply Chain Management in Defence and Aerospace Conference, 21 April 1999.
[33] Developed from Lewis, J. *Support to the Future Army*, Supply Chain Management in Defence and Aerospace Conference, 21 April 1999 and Bellamy, Dr C. *Spiral Through Time: Beyond 'Conflict Intensity'*, SCSI Occasional Paper No.35, August 1998. PD – Preventative Deployment; PE – Peace Enforcement; PK – Peace Keeping.



As such, increasing importance is being placed on post and pre-conflict activities in order to reduce the likelihood of actual conflict breaking out. In order to operate effectively throughout this possible range of deployments in both national and multinational operations, the Army must be organised and logistically supported effectively and flexibly. While contractors are used extensively in the Home Base, this is in a situation that could be described as peacetime. The use of contractors will increase as the environment in a theatre of operations settles down and the threat is reduced, and so will correspond to the top half of the circle, especially where there is traditional peacekeeping and preventative deployment operations. Another method of showing this is shown in Figure 2:[34]



Conclusion

[34] *Op Cit*. Evans, Brig P A D. 'Contractor Support: A View from Land Command'.

Contractors must be up to the challenge of meeting the customer's needs (in this case the Defence Logistics Organisation) and enhance their chances of success by providing logistic support more effectively, and allow the Army to concentrate on its core task – that of warfighting. A letter from the Duke of Wellington to the British Foreign Office illustrates the point:[35]

"Gentlemen,
Whilst marching to Portugal to a position which commands the approach to Madrid and the French forces, my officers have been diligently complying with your requests, which have been sent to me by dispatch rider to my headquarters. We have enumerated our saddles, bridles, tents and tent-poles and all manner of sundry items for which His Majesty's Government holds me accountable. I have dispatched reports on the character, wit and spleen of every officer. Each item and every farthing has been accounted for with two regrettable exceptions for which I beg your indulgence. Unfortunately the sum of one shilling and ninepence remains unaccounted for in one infantry battalion's petty cash. And there has been hideous confusion as to the number of jars of raspberry jam issued to one cavalry regiment during a sandstorm in western Spain. This reprehensible carelessness maybe related to the pressure of circumstances since we are at war with France. A fact that may come as a bit of a surprise to you gentlemen in Whitehall.
This brings me to my present purpose, which is to request elucidation on my instructions from His Majesty's Government so that I may better understand why I am dragging an army over these barren plains. I construe that perforce, it must be one of two alternative duties given below.
One, to train an army of uniformed British clerks in Spain for the benefit of the accountants and copyboys in London. Or perchance, to see to it that the forces of Napoleon are driven out of Spain. I shall pursue either one with the best of my ability, but I cannot do both."

The situation as it is in the post Cold War world and after SDR means that the Army (and the armed forces as a whole) must try and obtain better value for money from their logistic and support operations. This will be necessary to maximise the resources available for the purchase of increasingly complex and technologically sophisticated equipment and to enable the Army to keep hold of adequate personnel to run and maintain those systems. "But if we are to remain a professional force, capable of intervention and support operations, then we must retain a rapidly deployable, coherent military capability in the logistics and engineering areas, within an integrated support chain which has a balanced civil component."[36]

[35] Cited in Smart, Peter. *Op Cit*.
[36] Cross, Brig Tim. 'Logistic Support for UK Expeditionary Operations', *RUSI Journal*, February 2000, pp. 71 – 75.

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