

To what extent was Napoleonic warfare made possible by solving the problem posed by logistics?

Logistics is defined by the modern British Army as:

*'The science of planning and carrying out the movement and maintenance of forces.'*¹

There have been a myriad of different definitions of logistics since Jomini's 'practical art of moving armies'² in 1836 but this definition is as relevant in the Napoleonic period as it is today, for without the means to move and maintain forces no successful military operations are possible. Indeed to campaign without adequate logistics is to court disaster.

To determine the effect of logistics of Napoleonic warfare it is first necessary to examine the characteristics of warfare in that period. Predominant amongst them are the initial utilisation by Napoleon of manoeuvre warfare to overwhelm his opponents in battle rather than wear them down with attrition. The search for the knock out blow that proved so successful in 1805-9, yet led to rapid defeat in 1812 and a more prolonged failure in the Peninsular³.

This was aided by Napoleon's perfection of the *corps d' armée* system of semi-autonomous combined arms formations. These mini-armies would operate in dispersed manner for movement and then concentrate for battle and brought a great tactical flexibility to the conduct of operations. Comprising elements of all arms; infantry, cavalry, artillery and logistics they were potent forces in their own right. In

¹ *Infantry Tactical Doctrine Volume 1, Pamphlet No.1, The Infantry Company Group, The Fundamentals* (1998) pp. 6-2

² From *Précis de l'Art de la Guerre*, quoted in J. Sinclair, *Arteries of War: A History of Military Transportation* (Shrewsbury, 1992) pp.1

³ R. Holmes, *Oxford Companion to Military History* (Oxford, 2001) pp. 623

logistics terms they spread the burden both on the undeveloped road systems of day and on the local resources all armies depended on.

Napoleon's total war methods were later countered or imitated by his opponents but defined the nature of warfare in the era. His methods and the results of his campaigns, the acceptance of risk and the consequent occupation of defeated countries were a quantum leap forward from the relatively limited warfare of the 18th century.

Although the stakes were higher, the logistical problems faced by armies of the period were very similar to those of their predecessors. The predominant need was the feeding of men and animals, the problems of ammunition resupply, medical and equipment support were more limited. The consequences of a failure in logistics was in the loss of discipline in an army as its starving members searched for food and the consequent problems of morale and command. If the failure of logistics was prolonged enough an army could disintegrate, sometimes catastrophically.

The problem of supplying food to armies had usually being solved by a combination of local supply and from supplies stockpiled in magazines. Local supplies would be obtained from the population by either requisition, paid or forced, or by looting by troops. Requisition was usually conducted by the armies' commissary staff, allowing the fighting arms to concentrate on their own duties, and the resulting supplies distributed to the troops. Naturally for troops to resort to looting led to a diversion from the main effort of the campaign and usually a lessening of discipline.

Supplying an army from stockpiles in magazines had its own limitations. Supplies would first have to be gathered and transported to the magazine. They would then have to be transported forwards to the troops that required them. This obviously required a large amount of transportation which would increase the further an army travelled away from its magazines. Consequently the army would be tied to its supply

trains, without which it would starve, limiting its room for manoeuvre whilst also forcing it to defend its lines of communication from enemy threats. The transportation and acquisition of supplies would usually be in the hands of private contractors hired by the governments concerned.

Napoleon's logistics arrangements followed this pattern throughout his career despite the well known ability of French troops to live off the land. This ability is said by some to have been institutionalised in the French Army by the collapse of the existing logistical establishment during French Revolutionary Wars⁴. However whilst the French might have been its most expert practitioners, it also existed in all other armies to a greater or lesser extent.

In 1805 Napoleon's arrangements for his campaign on the Danube involved the movement of 150 wagons from his camps at Boulogne, these would supplement 1000 wagons provided under contract by the Compagnie Breidt however the bulk of supplies would be carried by 3500 wagons requisitioned from the areas he was to campaign through⁵. These best laid plans went awry, the wagons from Boulogne ended up in the wrong place, the Compagnie Breidt only had a fifth of the wagons needed and locals proved unwilling to part with theirs for any length of time.

In spite of this the Napoleon opened the campaign which was to climax on 2 December 1805 with the victory at Austerlitz a mere 67 days after crossing the Rhine. Lacking effective logistical support from the supply train he drove ahead anyway, living off the land and stores captured from intact Austrian arsenals. At times, especially in Austrian occupied Bavaria, pickings were very slim indeed but improved the further east along the Danube he penetrated. Napoleon's bold decision to go for

⁴ P. J. Haythornthwaite, *Napoleonic Source Book* (London, 1990) pp.109

⁵ Sinclair, *Arteries of War*, pp.4

broke and force battle in the face of depleted supplies ultimately secured the defeat of the 3rd Coalition.

The operational dominance of Napoleon and the tactical superiority of French troops combined to overcome the problems caused by logistics. However it is extremely doubtful that, operating some 1000km from bases in France, any contemporary system of supply from the rear could have functioned over such a time scale. The key to the campaign lay in the understanding that living off local supplies could give enough of a margin, however small, to create a chance of forcing a decision.

Learning the lessons of the 1805 campaign Napoleon made an effort to rectify some of the deficiencies of his creaking logistics train for the next year's operations. He replaced French contractors with German, and attempted to make better use of the Danube and other waterways in transporting supplies⁶. However these measures were to prove insufficient and the French Army faced near starvation during the Eylau campaign⁷. The result of the campaigns of 1807-8, nevertheless, was the utter defeat of the Prussians, the destruction of the Russian field army at Friedland and the Peace of Tilsit.

Whilst attempts to improve supply from the rear largely failed. Napoleon always ensured that the levels of supply found from local supplies were maximised. The movement of seven French corps across the Saxon frontier in 1806 as a classic *bataillon carré*⁸ in lateral columns enabled the foraging footprint to be as wide as possible. The rapid movement of troops at the start of the campaign also prevented areas from being over exploited. It was only during the Eylau campaign in June 1807 when constrained in the relatively poor land of East Prussia and Prussian Poland south of Königsberg that the reliance on local supplies began to fail.

⁶ Sinclair, *Arteries of War*, pp.5

⁷ Haythornthwaite, *Napoleonic Source Book*, pp175

Again Napoleon had shown that during an advance of any distance supply from the rear was simply not going to be able to deliver the supplies necessary. However by striking deep into enemy territory he could keep his troops supplied just well enough to be able to win a decisive battle. What the campaign of Eylau showed was that against an enemy that was not defeated and remained in the same areas local sources of supply would dry up. In essence once on the advance supply from local sources became paramount, but supplies brought up from the rear could provide a reserve as well as aid the army's recovery after victory.

In the campaigns of 1805-7 Napoleon had solved the problems caused by logistics by appreciating the strengths and limitations of the different forms of supply available to him. By combining the strengths of both his army and his tactics with the most efficient form of supply, local requisition, he placed his forces in a position to deliver the knock out blow. The situation was far from ideal, however, as the privations of the troops in 1807 revealed.

In response to the continuing failure of Compagnie Breidt and the supply train Napoleon created a militarised transportation service, the *Train des Équipages* to supplement civilian contractors and requisitioned transport. This originally comprised seven battalions each of four companies; the battalion establishment was later increased to six companies. These were initially equipped with vehicles purchased from the contractors, although Compagnie Breidt was initially untouched as its services were still required. The soldiers of the *Train des Équipages* were armed and expected to be able to at least defend themselves as well as be more willing to go forward to deliver supplies than the civilian contractors. Eventually they were expanded to a strength of twenty three battalions⁹.

⁸ G. E. Rothenberg, *The Art of Warfare in the Age of Napoleon* (London, 1977) pp.148

⁹ J. R. Elting, *Swords Around a Throne: Napoleon's Grande Armée* (London, 1988), pp. 564

Napoleon's next military venture was into the Iberian Peninsula, which raised its own extra logistical problems as there were no filled magazines on that frontier and the Spanish countryside much poorer than that found in western Europe. Nevertheless the French invasion was initially successful, defeating the Spanish and placing Joseph Bonaparte on the throne. However the continued resistance of Spanish guerrillas and outside intervention by the British forced the French into a prolonged campaign.

To maintain control in Spain the French needed to spread their forces wide to keep the guerrillas suppressed. This in turn eased their logistical burden, creating a lower density of troops to be fed from the country. However when facing British forces French units would have to concentrate to avoid being overwhelmed piecemeal. This massing of forces would then allow the guerrillas to increase their activities, take units away from local sources of supplies and force them to rely on supply convoys. Needless to say the supply convoys were dramatically vulnerable to guerrilla forces and would need large escorts to reach their destinations intact further reducing the combat power available to face the regular troops.

This combination of Anglo-Portuguese regulars and Spanish guerrillas proved extremely hard from the French to combat. An attempt to land a knock-out blow on Wellington in 1810 ended with Massena's troops before the Line of Torres Vedras outside Lisbon. Eventually far more of Massena's soldiers were lost to starvation and Portuguese peasants than British fire. Unable to force a decision the French armies in Spain were forced to sit at the end of their long supply lines being subjected to the constant attrition of manpower that became the 'Spanish ulcer'. The problems caused by logistics were not solved and as a result huge numbers of troops were kept tied up for little strategic gain losing, on average, 100 men a day¹⁰.

¹⁰ D. G. Chandler, *On The Napoleonic Wars* (London, 1966), pp.156

When the Austrians again tried to contest with the Emperor in 1809 Napoleon responded with a less than normally ad-hoc logistic effort. This time his *Intendent Général* Pierre Daru was sent to Bavaria to establish a chain of logistics depots eastwards along the Danube. Troops were mainly fed by supervised requisition and only the forward cavalry allowed to fend for themselves. The chain of depots was reinforced by river barges and once more captured Austrian depots proved a valuable source of supply¹¹.

The willingness of the Austrians to commit to battle combined with the short duration of the campaign, conducted on productive terrain, produced the perfect conditions for a typical Napoleonic victory. Whilst the Austrians certainly put up a better showing than those under the unfortunate General Mack of 1805 they were still, just, outclassed by the French. In this case the problems of logistics had been solved, thanks to a bit of foresight and the French could fight without suffering too much of the attrition caused by logistical deficiencies.

It is perhaps ironic that the greatest defeat of Napoleon in which logistics plays a major role is the campaign in which the greatest care was taken over logistic preparation. The Russian campaign was preceded by extensive preparations by the new *Intendent Général* Mathieu-Dumas who was instructed to place the rear areas of the *Grande Armée* on a military basis¹². The initial moves were to divide the rear areas of Germany and Poland into three military districts (*arrondissements*) and set up five main supply routes running from the Rhine to the Vistula. Boats, wagon trains and cattle were gathered together whilst bakeries, hospitals and the like were readied. The statistics are revealing. Over twenty six battalions of the supply train were equipped with no fewer than one and a half thousand wagons capable of carrying 110000 kg of

¹¹ Elting, *Swords Around a Throne*, pp 565-6

supplies. This was supplemented by 200 river boats, around 50000 head of cattle and over 28000 hospital beds in East Prussia alone¹³.

As the *Grande Armée* moved into Russia supplies were brought forward and large depots established in Vilna, Minsk and Kovno, smaller magazines were set up in Smolensk, Orsha and Vitebsk. However supplies from the rear only reached the front in a spasmodic way and many troops discarded their reserves of food and cold weather gear rather than manpack them. Initially this had little effect on the forward troops as they successfully lived from the land on the fat of Russian harvests, but less successful troops soon began to weaken thanks to reduced rations and long marches. In particular Napoleon's more or less willing allies were particularly badly hit. The Bavarian Corps in particular suffering 50% casualties before even encountering the enemy¹⁴.

However the real problems came with the Russian refusal to accept defeat, even after Borodino and the occupation of Moscow. Unable to protect his long lines of communication, force a decision or feed his troops in the winter. Napoleon had no real choice but to retreat back on his depots to try and regenerate his heterogeneous force. The retreat, harassed by weather and Cossacks and hindered by weakened troops whose supply wagons were too often laden with loot rather than food has passed into legend for its suffering. The rear areas were in chaos with several depots captured, and even those which remained had to be forced to give up their supplies and were besieged by stragglers. Inadequate medical support meant that most of the wounded were left behind to their deaths. The *Grande Armée* disintegrated.

1812 was absolutely an attempt at a classic Napoleonic warfare, a high stakes gamble at forcing Russia back into compliance with the Emperors' wishes. Napoleon had learned from the mistakes of his previous campaigns and made thorough

¹² Elting, *Swords Around a Throne*, pp 566

¹³ Chandler, *Campaigns*, pp.757 and Elting, *Swords Around a Throne*, pp.566

preparations of his rear areas, stockpiled supplies and massed the means of transporting them. However the usual pattern of living from the land broke down under the sheer weight of his 600 000 strong army, which could not be supplied from the rear no matter how comprehensive the preparations.

It is often said that Napoleon's predilection for fast moving formations living off the land arose from his experience in the Marengo campaign, whilst his ultimate nemesis Wellington learned the value of painstaking logistical preparation in India. Indeed Wellington's Peninsular Army was probably the best supplied and supported army of its time. Which given its problems when cut off from supply in the retreat to Corunna or the retreats from Talavera and Burgos was probably fortunate.

However by and large Wellington's style of warfare was not typically of the Napoleonic era. His tactical and operational conduct was primarily defensive, playing to his strengths of largely abundant supply but limited manpower. He was constantly aware of the need to protect his lines of communication and never took the risks Napoleon did to force a decision. Indeed even during the campaign running up to the Battle of Vittoria, widely regarded as his most ambitious in terms of manoeuvre, his outflanking movements always took him closer to the coast and maritime supply. Wellington consistently utilised his own logistic strength to expose his enemies to attrition compounded by their own logistic failings.

Throughout Napoleon's early, most productive, campaigns there is an almost dismissive attitude to the need for comprehensive logistical preparations. This could be said to be a tacit admission of his awareness that supply from the rear will not prove sufficient to support the leading troops. Indeed that supply from the rear will not be a major factor in the success or failure of the campaign. Instead faith is placed in the

¹⁴ Chandler, *Campaigns*, pp. 759

ability of troops to live off the land and measures are taken to maximise the efficiency of these techniques. The *corps d'armée* are spread as widely as possible and troops are given orders and control measures imposed to make the local supplies last as long as possible, to take only from villages on one side of the road for example. The army is kept moving as much as possible to pass through fresh areas of supply.

This does not solve the problem of logistics, time and again the French Army is on the verge of starvation and possible disintegration. However when combined with Napoleon's aggressive manoeuvrist strategy and the superiority of French troops it was enough to be able to force a victory on an enemy that stood and fought.

The potential dangers of this method must have been obvious to Napoleon as he made serious efforts to increase the professionalism of his logistical set-up. As his enemies began to understand and copy his strategies and the high stakes total war he favoured his original ad-hoc methods were no longer sufficient. The events in Russia and Spain are in many ways the negative image of his Danube campaigns of 1805 and 1807, prolonged, indecisive and ultimately disastrous.

It might be fair to say that decisive Napoleonic warfare actually enabled logistical problems to be solved by its rapid movements, living off the land and a defeated enemy's depots. It was when that decisive warfare broke down against an obstinate enemy in barren countryside that the logistic solution of rapid and dispersed movement broke down. When it did, those very decisive movements deep in an enemy's territory rendered it extremely difficult for supplies from the rear to be brought up. It was then that the style of warfare became once again largely an attritional conflict in which the weakness of French logistics would contribute to their eventual defeat.

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