Early Experiments in civil-military cooperation: The South-Eastern and Chatham Railway and the port of Boulogne, 1914-15

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Abstract

The transport network in France was responsible for providing everything the British Expeditionary Force [BEF] required in order to both survive and conduct operations on the Western Front. The appointment of Sir Eric Geddes to the position of Director-General of Transportation in the autumn of 1916 is now widely accepted as having provided the BEF with the logistical platform from which to build the war-winning machine of 1918. Yet prior to Geddes' arrival in France, the BEF had already begun engaging with Britain's transport experts. This article examines the work of the South-Eastern and Chatham Railway [SECR] at the port of Boulogne during 1915. It illustrates that the BEF, far from being insular, was highly active in harnessing civilian support. However, due to the as yet incomplete understanding of the character of the war, the long-term contribution of the SECR was severely restricted by the short-term inability of the company, and the BEF, to adequately comprehend the colossal material effort required for victory on the Western Front.

Keywords

Logistics, civil-military relations, industrial warfare, administration, efficiency

Introduction

John Terraine once lamented that 1918 was the 'forgotten' year of the First World War. Ignored by partisan, influential writers on the conflict such as Lloyd George and Basil Liddell Hart, the final year of the conflict – the year of victory – was submerged by a narrative which placed undue stress upon the vast, indecisive struggles of 1916 and 1917. From this ferment brewed the 'myths' that Terraine, and a generation of 'revisionist' historians in his wake, have battled to debunk. The outcome has been the production in the past two decades of a wealth of literature on the military campaigns of 1918, in which the scale, complexity and proficiency of the British Expeditionary Force's [BEF] 'war machine' has been cited as evidence to dismiss criticisms of the British high command's hide-bound, technical backwardness. Consequently, the faltering genesis of that 'machine' in the period 1914-1915 tends to have been

overshadowed.[1] During 1915, the BEF more than trebled in size. Over 650,000 men were added to the ration strength between January and October alone.[2] The historiography of the year, dominated by the dismal failure at Gallipoli, the training of Kitchener's recruits and the 'shells scandal', has overlooked the administrative achievement of ensuring this increase took place without the troops experiencing starvation. Using the extant records of the directorates most intimately connected with the task of managing the logistical implications of the BEF's expansion, this article seeks to correct this imbalance and demonstrate that the BEF – even prior to the renowned civilian mission led by Sir Eric Geddes during the Battle of the Somme – actively sought out and engaged with experts from Britain to help solve recognisably 'civilian' problems of transport and supply.[3]

Unlike Geddes' wide-ranging mission, the experiment at Boulogne spearheaded by Francis Dent was small-scale and localised in scope. It was subject to restrictions set both by a British Army still attempting to comprehend the magnitude of the war in which it had become embroiled, and those of a French Army and state unwilling to relinquish command and influence over the foreign forces engaged on their soil. The result of these twin constraints was to limit this 'early experiment' to what Brown described as an 'ad hoc' attempt to solve the key constraint governing operational success on the Western Front; the sufficient and reliable supply of myriad goods to the fighting troops.[4] Such attempts were largely uncoordinated and vacillating, hindered by problems inherent in the expansion of the British commitment to the war and the consequent decentralisation of command on British lines of communication which ultimately remained under the control of the dominant power in the coalition, the French.[5]

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[1] I.M. Brown, 'Growing Pains: Supplying the British Expeditionary Force, 1914-1915' in *Battles Near and Far: A Century of Operational Deployment*, ed. by P. Dennis and J. Grey (Canberra: Army History Unit: Department of Defence, 2004), pp. 33-47.

[2] I.M. Brown, *British Logistics on the Western Front, 1914-1919* (London: Praeger, 1998), p. 103.

[3] K. Grieves, 'The Transportation Mission to GHQ, 1916', in *'Look to Your Front!' Studies in the First World War by the British Commission for Military History*, ed. by B. Bond et al (Staplehurst: Spellmount, 1999), pp. 63-78.

[4] M. Van Creveld, *Supplying War: Logistics from Wallenstein to Patton* (Cambridge: Cambridge University Press, 1977), p. 1; Brown, *British Logistics*, p. 139.

[5] Decentralisation of administrative tasks was viewed as necessary 'in view of the large increases in the forces in the field'. See The National Archives [TNA]: Public Record Office [PRO] WO 95/27 Quarter-Master General, French to Kitchener, 18 January 1915; TNA: PRO WO 95/74 Director of Supplies, diary entry, 20 December 1914.

The challenges of expansion

The preparations of the War Office prior to August 1914 made no plans for the extraordinary increase in size of the BEF which took place after the initial engagements had proven indecisive.[6] The pre-war 'conversations' between French and British staffs led to an agreement by which the logistics of the BEF were to be 'manned and controlled by the French', who would undertake 'the work of construction, repair, maintenance, traffic management and protection' required to supply the British both in France and beyond the Belgian frontier once the anticipated advance began.[7] As a result, aside from liaison officers to coordinate movements at the ports of disembarkation, the BEF set sail without a labour force to assist in the task of unloading supplies at the Channel ports. The expansion of the BEF meant that transporting large numbers of troops to and from the battlefields would require an increasing amount of port space to be dedicated to the disembarkation of soldiers, with the corresponding necessity for further room to be set aside to deal with the numerous shipments of foodstuffs, munitions, vehicles and other supplies required to preserve the fighting efficiency of the force.[8] The creation of opposing trench lines over the winter months also gave rise to demands for 'many kinds of tools and stores required in siege warfare'; large quantities of sandbags, barbed wire and entrenching tools being demanded to help secure the front line.[9]

Furthermore, the BEF were not the only body reliant upon the Channel ports. Both the Belgian and French armies also drew supplies from the ports, demands exacerbated by the loss of much of France's industrial heartland to the Germans, losses which left the French increasingly dependent upon imports of coal from Britain.[10] Enormous quantities of coal were required for the heating of homes, for powering the factories that were to produce all kinds

[6] Brown, *British Logistics*, pp. 75-6.
[7] A.M. Henniker, *History of the Great War. Transportation on the Western Front, 1914-1918* (London: His Majesty's Stationery Office, 1937), p. 13. This was emphasized in the instructions issued to supply officers on mobilization. See TNA: PRO WO 33/686 Instructions for the Inspector-General of Communications, Part II, p. 1.
[8] Henniker, *Transportation*, p. 90.
[9] TNA: PRO WO 95/3950 Inspector General, Robertson to Maxwell, 29 November 1914.
[10] On the eve of war, the area directly affected by the German invasion accounted approximately three-quarters of French coal and coke production. See J. Lawrence, 'The transition to war, 1914', in *Capital Cities at War: Paris, London, Berlin, 1914-1919*, ed. by J. Winter and J. Robert (Cambridge: Cambridge University Press, 1997), pp. 135-63 (p. 152).

of war *matériel* and for the operation of the railways upon which the majority of supplies for the coalition were sent forward.[11] Such a resource was clearly vital to the wellbeing of the forces and fundamental to the French war effort, however it was not merely coal which 'monopolised' the limited capacity of the docks. Significant quantities of wine were also being stored in dockside warehouses, 'to the detriment of efficient working of disembarkation of troops and stores'.[12]

It was not only supplies and troops entering France that drew upon the resources of the ports. The extent of the German advance meant that Calais - earmarked by the Royal Navy for the evacuation of sick and wounded soldiers - was also receiving a considerable influx of Belgian refugees looking to obtain passage to Britain. Although land existed for the expansion of sidings and storage accommodation, alongside the construction of additional harbour space at the Channel ports, such projects were time consuming, expensive and required significant quantities of skilled labour. As the French Army had suffered nearly a million casualties by the end of 1914, the coalition's senior partner was unable to provide the manpower required for such large-scale engineering works. In addition, previously reserved occupations such as the stevedores provided for the use of the BEF were increasingly required to replace the fallen in the French ranks.[13]

With so many compelling demands placed upon them, it was imperative that the available space on the Channel coast was worked with the utmost efficiency. However, an investigation into the BEF's rail transport arrangements in October 1914 – commissioned by Lord Kitchener and undertaken by the Canadian railway expert Sir Percy Girouard – examined Boulogne's suitability as an army base and concluded it 'to be in a somewhat disorganised condition'.[14]

[11] TNA: PRO WO 95/3951 Inspector General, Cowper to Marrable, 27 November 1914.
[12] WO 95/3951, Moore to Marrable, 25 November 1914. However, as pointed out to the plaintiff wine, far from being the 'matter of pure luxury' it was considered in Britain, was in fact 'the staple beverage of all classes' in France, formed part of the military ration and was, therefore, argued to be an integral element of the French war effort. See Cowper to Marrable, 27 November 1914.
[13] WO 95/3951 Shortland to Maxwell, 9 December 1914; Maxwell to Kitchener, 12 December 1914; Robertson to Huguet, 11 January 1915.
[14] TNA: PRO WO 32/5144 Report on rail transport arrangements for British Army on the continent by General Sir E. Girouard, p. 13; Girouard to Cowans, 24 October 1914.

Girouard concluded that, in light of the inability of the French to supply the required labour, it would be necessary for Britain to provide the 'sheds, sidings and many other works' deemed 'requisite to get anything like the full capacity out of such places as Boulogne, Calais, Dunkirk, Ostend or even Zeebrugge'.[15] By December, the situation at all the ports in use by the BEF was deteriorating, a problem deepened by a deficiency of cranes suited to the tasks of unloading military supplies and a lack of covered accommodation under which to shelter items such as hay and oats from the winter weather.[16] On the basis of Girouard's observations, officers in the BEF prepared a project for the extension of sidings and storage accommodation around the Bassin Loubet, one of the two docking basins at the port of Boulogne, a job described by the Inspector-General of Communications [IGC] as 'vital' and 'urgent' were the BEF to develop Boulogne as a supply base.[17]

The accomplishment of this task, in addition to all the other duties being thrown upon them in the opening months of the war, was beyond the limited number of Royal Engineers in France.[18] As a result, arrangement of the civil engineering work required at the port was passed on to the Railway Executive Committee [REC] to delegate to a capable individual. The Chief Engineer of the South-Eastern and Chatham Railway [SECR], Percy Tempest, took on the responsibility.[19] Between December 1914 and September 1916, the SECR would provide the tools, material, labour and supervision for the provision of sidings; loading platforms; roads and railways; storehouses; workshops; the laying of over two miles of drain pipes and even the construction of a 700 foot long sea wall.[20] The contribution of the company to the operations at Boulogne would not, however, be restricted to engineering. Tempest was joined at the Bassin Loubet by the General Manager of the SECR, Mr (later Sir) Francis Dent who, along with forwarding Tempest's estimates for the costs and duration of the intended works,

[15] WO 32/5144, Report on rail transport arrangements, pp. 10-3. The inclusion of Ostend and Zeebrugge in Girouard's deliberations demonstrates the mindset of the period, that trench warfare was merely a temporary expedient.
[16] TNA: PRO WO 95/74 Director of Supplies, diary entry, 9 December 1914; 13 December 1914.
[17] WO 95/3951 Maxwell to Robertson, 30 November 1914; TNA: PRO WO 158/2 Director of Supplies: British Armies in France and Flanders Pt I, p. 146.
[18] WO 95/3951 Robertson to Kitchener, 28 November 1914.
[19] E.A. Pratt, *British Railways and the Great War; Organisation, Efforts, Difficulties and Achievements*, 2 vols. (London: Selwyn & Blount, 1921), II, pp. 634-5.
[20] The construction work at the port would continue, under the supervision of the SECR, until September 1916. See 'Special War Services by the South-Eastern and Chatham Railway', *Railway Magazine*, May 1920, p. 347.

also added his view that the capacity of the port was suffering due to inefficient goods handling practices both from ship to quayside and from dock to railway.[21] For the next year, the SECR would actively assist the military authorities in France as the BEF sought to improve the throughput of goods from ship to rail at Boulogne.

Francis Dent and the Bassin Loubet

Dent's pre-war career gave him prior experience in solving the problems identified at Boulogne. A lifelong railwayman, Dent had entered the General Manager's office of the London and North-Western Railway [LNWR] at seventeen, and over the following two decades had served the company in a variety of roles and locations. Dent's abilities and 'efficient work in each of these positions' led to a series of promotions, and was typified by Dent's approach to congestion at Broad Street Station, one of the busiest stations in turn-of-the-century London.[22] With traffic numbers and the volume of merchandise to be handled through the station rising, it had been feared that the station would require significant expansion. However, through various arrangements, including a generous bonus payment scheme for the station's workforce, Dent accelerated the turn round of goods and rendered the station enlargement unnecessary.[23] The challenges of improving efficiencies within the limited storage space available at Boulogne were, therefore, intelligible and recognisable to a man like Dent, whose career continued to blossom after the Broad Street reorganisation.

Dent's commitment to economic working practices,[24] and skills as a freight transport organiser led to his appointment as Chief Goods Manager on the SECR in 1907. Four years later he became General Manager. This promotion not only brought Dent a wage packet which reflected his social status as a leading railway manager in Edwardian Britain, but also brought him into close professional contact with the pre-war British Army, being appointed

[21] WO 95/74 diary entry, 11 December 1914. It is not clear from the existing records whether Dent's initial observations were actively requested by the Supplies Directorate, or if Dent's visit to Boulogne coincided with one of his numerous trips to France in the early months of the war in conjunction with his role as chair of the Ambulance Trains for the Continent subcommittee of the REC.
[22] 'The New General Manager of the South-Eastern and Chatham Railway', *Railway Magazine*, April 1911, p. 304.
[23] 'Retirement of Sir Francis Dent. General Manager, South-Eastern and Chatham Railway', *Railway Magazine*, April 1920, pp. 252-3.
[24] 'New General Manager', p. 304.

to the REC in May 1913. The REC, which comprised the General Managers of the railway companies most intimately involved in the mobilisation process for the BEF, was a permanent consultative body and a forum for discussion and knowledge-sharing between railway companies, established in the wake of the Agadir Crisis to help accelerate Britain's military response in the event of war. It would administer the railways of Britain under instruction from the government throughout the conflict. Dent's contribution on behalf of the SECR would largely consist of ensuring that: the locomotives, train crews and rolling stock would be available; and that the troops would be collected from their peace stations and transported to their ports of embarkation on the assigned date and time listed on their mobilisation timetable. The location of the SECR, serving Woolwich and the south-east, also led to the company being appointed as 'secretary railway' to the army's Eastern Command, a role involving significant levels of civil-military interaction in order to ensure all details of the mobilisation scheme were kept up-to-date.[25]

Thus in 1914 Francis Dent was a highly-experienced professional railway manager, a man with a recognised talent for promoting efficiency and conversant with the intricacies of military demands. At forty-seven years of age he was too old to enlist in the ranks, however by the time he arrived at Boulogne Dent had already made a number of contributions to the war effort. Following the completion of the mobilisation programme, Dent had acted as chairman of a subcommittee of the REC charged with the duty of providing ambulance trains for the higher-than-expected numbers of wounded soldiers arriving back in Britain. Dent, working alongside two Surgeon-Generals from the Royal Army Medical Corps and a representative of the War Office, was tasked in September 1914 with standardising a design for new ambulance trains and supervising their production. Within weeks of his appointment, Dent was charged with overseeing the production of ambulance trains for use in France as well as Britain. By December, plans were already underway for British firms to build bespoke ambulance trains

[25] The complexity of these arrangements is illustrated in the surviving timetables, which detail the precise nature of the schedule required to be kept by the railway companies. For an example, see TNA: PRO WO 33/684 Eastern Command mobilization railway programme, Part I and II, 1914.

consisting of staff-cars, kitchen-cars, pharmacy-cars and stores cans alongside carriages designed to take stretchers and 'sitting up' cases.[26]

Dent's next contribution, at Boulogne, would be of a different order altogether, demonstrating the uncoordinated nature of Britain's response to the multitude of short-term challenges thrown up by her increasing involvement in the war. Although primarily a passenger rail line in peace time, the SECR also controlled the two principal ferry services running from Dover-Calais and Folkestone-Boulogne, providing the company with both a working knowledge of the Channel ports and offices at both. Indeed, even before Tempest and Dent arrived, staff of the SECR had been made available for the BEF's use at Boulogne.[27] This, coupled with his prior experiences, led Dent to offering to spend a fortnight at the port, studying 'the situation on the spot' before putting forward detailed suggestions as to how efficiency could be improved at Boulogne.[28] The period of investigation led Dent to observe that: 'Boulogne is a very good port for quick handling and, by using it properly, the transit of supplies to the front is much accelerated'.[29] To ensure that 'proper' use was made of Boulogne, Dent suggested that the SECR should take responsibility not only for the building work at the Bassin Loubet, but for the operation of all areas of the port reserved for the BEF. Dent's proposal entailed the SECR taking over the 'work of discharging ships, stacking supplies and loading trains, [and] providing all the personnel' for these tasks rather than relying upon an increasingly unreliable supply of labour from the French.[30]

Essentially, Dent was offering to supersede a suggestion made by the Director of Railway Transport the previous month, that an experienced officer of the SECR could act as a Deputy Assistant Director of Railway Transport with an experienced military officer acting as an 'adjoint' to the civilian specialists.[31] The SECR would replace the existing system whereby the

[26] Pratt, *British Railways and the Great War*, I, pp. 195-227.
[27] TNA: PRO WO 95/64 Director of Railway Transport, Twiss to Murray, 21 November 1914.
[28] WO 95/74 diary entry, 11 December 1914.
[29] TNA: PRO WO 95/3952 Inspector General, Dent to Cowans, 31 December 1914.
[30] WO 95/3952 Dent to Clayton, 28 December 1914; Clayton to Dent, 30 December 1914.
[31] WO 95/64 Twiss to Murray, 21 November 1914.

navy was responsible for the discharge of the ships onto the quayside, and the army for the forward transport and storage of goods.[32] In a memorandum issued to the Director of Supplies, Dent outlined the rationale behind his recommendations. The object of the Bassin Loubet in peace time 'was to ensure quick transit between steamer and train. The hangars were laid out with a view to easy checking and customs examination',[33] and the boats engaged in supplying the port were, by and large, the railway steamers used in peace time. The work of discharging ships, stacking supplies and loading trains was no different to the work undertaken at the railway ports controlled by the SECR in peacetime. In fact, the military work would be 'simple' when compared to ordinary trade practices, as the vast majority of supplies would be arriving in bulk and would not require lengthy customs examinations upon arrival in France.[34] There was, Dent concluded, 'nothing in the way of checking or loading that would not be easy enough for a railway checker' to perform.[35]

By managing the port using civilian working methods, Dent believed the dock to be capable of turning over 5,000 tons per day, provided that 'certain factors that operate against quick work' were eliminated. The proposed solution to these factors, including the new sidings and accommodation then under construction, were designed to produce a system whereby the majority of supplies were transferred directly from ship to rail. Those required urgently at the front could therefore be sent forward quickly; items not immediately required could be moved to storage sites away from the docks, keeping the quayside free for the discharge of arriving vessels.[36] With the quantity of food alone to be handled daily through the Channel ports projected to reach 4,400 tons per day once Kitchener's volunteers arrived,[37] Dent's estimates were understandably appealing to the officers charged with ensuring the BEF continued to receive sustenance. The Director of Supplies, Major-General Frederick Clayton,

[32] TNA: PRO WO 95/3953 Inspector General, Proceedings of second meeting of committee on Mr Dent's scheme held at Boulogne on 15 February 1915; Brown, *British Logistics*, p. 88.
[33] WO 95/3952 Boulogne – Memorandum by F.H. Dent, 28 December 1914.
[34] WO 95/3952 Boulogne – Memorandum.
[35] WO 95/3952 Dent to Clayton, 28 December 1914.
[36] WO 95/3952 Boulogne – Memorandum. Dent believed the full capacity of the docks to be 7,000 tons per day, the lower estimate being a reflection of the staff during the war which consisted of 'boys and men not of military age'.
[37] WO 95/3952 diary entry, 16 January 1915.

was sceptical of the figures Dent estimated were achievable at Boulogne however, and had reservations over the practicality of the 'quick transit' scheme being suggested.

A central part of Dent's plan to maximise efficiency at the Bassin Loubet involved the loading of cargo in Britain so that 'each ship should have approximately sufficient of everything to make the greater part of one or more supply trains'.[38] This would ensure that trains could be made up directly from the quayside, reducing the amount of 'double-handling' required in unloading ships, storing within the harbour and then transferring to rail. Any surplus stock on each ship, or perishable items which had to be 'turned over', would go into systematised stores for later despatch. Such a system was however, unfeasible as a solution to the BEF's transport problems, as exemplified by the transportation of food.

The bulk of a soldier's ration was meat and bread. The meat was taken from cold storage ships berthed at Boulogne, the bread baked (in December 1914 at least) in an open field. French transport provided the link between the bakeries and the railways.[39] Neither commodity would therefore be on board the ships whose cargo was being transferred direct to rail. The other rations sent forward were varied.[40] Fresh meat would be exchanged for preserved, whilst vegetables, bacon and butter would also be rotated to ensure that 'Tommy' received a diet that was not endless 'tea and dog biscuits'.[41] Additionally, items such as petrol and lubricating oil which were required at the front were not transported on the same ships as food to prevent contamination. In short therefore, 'you could not pack a train for any formation straight from the ship except as regards hay and oats'.[42]

[38] WO 95/3952 Boulogne – Memorandum.
[39] As a demonstration of the 'ad hoc' nature of the BEF's approach in the early months of the war, the bakery at Boulogne was originally set up on the only space available for it, the seafront itself. See WO 158/2 Supplies, p. 154.
[40] WO 95/3952 Clayton to Dent, 30 December 1914.
[41] A. Weeks, *Tea, Rum and Fags: Sustaining Tommy, 1914-18* (Stroud: History Press, 2009), pp. 7-10.
[42] WO 95/3952 Clayton to Dent, 30 December 1914.

Despite these detailed criticisms Clayton was, at this point of the war at least,[43] sufficiently amenable to civilian observations to encourage further discussion of Dent's suggestions, as was the Quartermaster-General, William Robertson. Both saw potential benefits in allowing the SECR increased responsibility in the operation of the port, and a committee was formed to consider discuss amendments and improvements to Dent's scheme. The membership of the committee emphasises the number of departments with vested interests in the supply procedures of the BEF, officers being drawn from the staffs of: the Principal Naval Transport Officer; Director of Railway Transport; Director of Supplies (Clayton himself was to preside); the Director of Works and the Director of Ordnance Services.[44]

The complexity of the intended operations and Dent's commitments to the REC were such that a comprehensive statement of the intended arrangements was not submitted in time for the committee's first meeting in late January 1915.[45] Nevertheless, both the naval and military elements saw the 'advantage' of centralising responsibility for the management of Boulogne and were willing to accept Dent's offer subject to approval from GHQ, the War Office and, naturally, the French authorities.[46] In the two weeks following the committee's first meeting, Fred West – the Goods Superintendent of the SECR's London district – was tasked to 'ascertain the system of work of the various departments and to discuss various points with the officers in charge'.[47] Upon the completion of his fortnight-long investigation the committee reconvened to examine West's report, a combination of observations regarding the existing situation at the port and recommendations to help the BEF 'obtain the maximum amount of efficiency and economy' going forward.[48]

[43] Clayton's open-minded approach to civilian investigations of the working practices on the lines of communication would not last. A series of 'missions' took place between January 1915 and the summer of 1916, during which time Clayton's attitude towards civilian 'interference' underwent a sea change. This culminated with a scathing rejoinder to a report by the shipping magnate Sir Thomas Royden issued in July 1916. See University of Warwick Modern Records Centre, Papers of Sir William Guy Granet, MSS.191/3/3/14 Remarks on the Report of the Commission sent out by the Shipping Control Committee.

[44] WO 95/3952 Robertson to Maxwell, 9 January 1915.

[45] WO 95/3953 Clayton to Twiss, 3 February 1915.

[46] WO 95/3952 diary entry, 29 January 1915; WO 95/64 French to Kitchener, 23 February 1915. The committee's approval was retained despite Dent's subsequent downward revision of the estimated capacity of the Bassin Loubet to 3,536 tons per day.

[47] WO 95/3952 Commandant, Boulogne Base to Clayton, 27 January 1915.

[48] WO 95/3953 Bassin Loubet – Boulogne. Mr West's Report, 13 February 1915.

The second meeting of the committee focused upon the importance of installing an appropriate 'single authority' to centralize control of the supply system within the port. The committee suggested that the navy, due to their inexperience in managing the land-based transport required to shift supplies away from the quayside, should cede responsibility for the work of discharging ships to that 'single authority'. Once a ship had been successfully berthed at the port, therefore, the navy's responsibilities at Boulogne would be completed until the ship was ready to depart.[49] The naval representative on the committee accepted the decision.[50] With the SECR experienced in the operation of railway ports, their commercial connections to Boulogne, and the involvement of the company in the construction works being supervised by Tempest, the committee concluded that the SECR represented 'the most suitable' entity to take on the responsibilities of the 'single authority'.[51]

Despite consensus having been achieved in France, the change in procedure required ratification from the War Office, which was inexorably slow to arrive. Permission was first requested on 4 February; confirmation finally arrived on 17 March, effectively putting the scheme into stasis for six critical weeks.[52] Further delays were necessary in order for Dent to 'collect his own staff' for work in the port, for those men to observe the 'routine working of a port' prior to taking over, and for arrangements between the SECR and the French rail authorities to be finalised. Following discussions between Dent, the Director of Railway Transport and representatives of the *Commissions Regulatrices*, the SECR was finally authorised to take over 'all the work of shunting, marshalling and the making up of trains in the Bassin Loubet at Boulogne' from 25 April'.[53] The working of the other ports at which the BEF received shipments would continue to operate under the existing system.

[49] WO 95/3953 Clayton to Shortland, 16 February 1915.
[50] WO 95/3953 Proceedings of second meeting. The acquiescence of the naval authorities was deemed paramount to the continuation of negotiations. See WO 95/74 diary entry, 17 January 1915.
[51] WO 95/3953 Clayton to Maxwell, 16 February 1915; TNA: PRO WO 95/75 Director of Supplies, diary entries, 24 and 26 February 1915.
[52] WO 95/3953 diary entries 5 and 27 February 1915; TNA: PRO WO 95/3954 Inspector General, diary entries, 8 and 17 March 1915.
[53] WO 95/3954 Clayton to Maxwell, 21 March 1915; TNA: PRO WO 95/3955 Inspector General, diary entry 20 April 1915; TNA: PRO WO 95/58 Director of Ordnance Services, diary entry, 19 April 1915.

The result of these delays was to increase congestion at Boulogne, as huge quantities of supplies were despatched to a port largely incapable of handling them.[54] With demands from the front rising exponentially as the BEF went into battle at Neuve Chapelle, the War Office was attempting to despatch as many ships, as quickly as possible, to ensure supplies were made available to the troops. Unfortunately, this meant that ships were arriving in quick succession rather than leaving a sufficient interval to ensure each ship's cargo could be discharged and, crucially, cleared from the quayside before the next ship was berthed. Further problems were experienced as a result of staff at Boulogne receiving incomplete or insufficient information regarding the contents of each arriving ship. As an example, the SS *Juno* set out for Boulogne on 13 March, with port staff informed only that she carried 'general cargo'.[55] With limited crane facilities available, it was imperative that the port authorities received prior notice of the stores arriving so that they could be directed to the most suitable berth and dealt with punctually. Without this information, Clayton warned, the supply services could not guarantee that urgent supplies would be processed in time.[56]

To alleviate this issue,[57] Dent suggested the installation of a bespoke telephone line between Boulogne and the SECR's offices in London, Folkestone, Dover, Calais and Dunkirk. Such a system would allow for early information to be received as to the contents of each ship prior to their arrival, allowing those on the French side of the Channel to direct the incoming traffic to the most suitable berth and to arrange for the provision of any specific requirements, such as specialist unloading gear, to be made available.[58] The War Office had no problem with the installation of the line; however, although the BEF had been granted 'every latitude' for the improvement of local transport facilities within the zone populated by the fighting troops, schemes for more permanent installations of this type had to be signed off by the French.[59]

[54] WO 95/3963 Inspector General, British Lines of Communication in 1915, p. 1; Brown, *British Logistics*, pp. 80-2.
[55] TNA: PRO MT 23/353 Naval Transport Officer, Boulogne, Telegram: Hamilton to Shortland, 15 March 1915.
[56] WO 95/3954 diary entry, 23 March 1915.
[57] Brown, *British Logistics*, p. 99.
[58] WO 95/3954 diary entries, 12 and 23 March 1915.
[59] WO 95/3953 diary entry, 27 February 1915.

The installation of telephone facilities for the use of the SECR was clearly not considered a priority at *Grand Quartier Général*, as by the end of October 1915 no decision had been obtained regarding the matter. Clayton had clearly felt all along that the French were 'unlikely' to accede to Dent's request,[60] but following an appeal from Dent to 'badger' Joffre's staff a further enquiry was made and a subsequent refusal from Joffre arrived in early November.[61] The reason given was that the French were disinclined to grant such privileges as requested by Dent to a civilian firm. Not only would the proposed telephone lines be of use during the war, they would also potentially give the SECR a competitive advantage once peacetime returned, to the possible detriment of French firms operating in the same sphere. Furthermore, the French had perceived that a 'custom' of unauthorised use of the telephones in the SECR's offices had 'grown up' during 1915, and argued that the existing facilities were sufficient for the SECR's requirements.[62]

Although the 'telephones incident' may appear superficial, the disagreement demonstrates the limits of the 'business arrangement' between France and Britain during the war.[63] Throughout the conflict, French and British authorities were involved in a complex series of negotiations, within which the post-war economic and strategic considerations of each partner provided an underlying context which militated against complete cooperation. Despite ostensibly seeking the same goal (the defeat of Germany), the war aims of the two powers were in many respects profoundly different, requiring both to participate constantly in a process of discussion and compromise in order to preserve the delicate connection between the two countries.[64] The absence of a formal 'contract' prior to the war,[65] coupled

[60] WO 95/3955 diary entry, 7 April 1915.
[61] TNA: PRO WO 95/3961 Inspector General, diary entry 31 October 1915; TNA: PRO WO 95/3962 Inspector General, diary entry 8 November 1915.
[62] WO 95/3962 diary entry, 8 November 1915.
[63] G. Sheffield, 'Introduction', in *Britain and France in Two World Wars: Truth, Myth and Memory*, ed. by R. Tombs and E. Chabal (London: Bloomsbury, 2013), pp. 19-28 (p. 19).
[64] E. Greenhalgh, *Victory through Coalition: Britain and France during the First World War* (Cambridge: Cambridge University Press, 2005).
[65] The Franco-British alliance of 1915 largely failed to meet any of the criteria posited as essential for the creation of a successful partnership. See J. Hughes and J. Weiss, 'Simple Rules for Making Alliances Work', *Harvard Business Review*, 85 (2007), 122–31 (pp. 122-3).

to the lack of any organ for collective decision-making,[66] reinforced the primacy of national considerations to the potential detriment of coalition requirements. In 1915, the relative strength of the French in terms of 'land power', and the location of the expanding BEF on French soil – something that had not been anticipated on such a scale prior to 1914 – acted as a powerful bargaining tool in such discussions. The French retained the 'upper hand' and would do so until after the attrition of 1916 further 'equalised' the relative strengths of the allied forces on the Western Front.[67] Consequently, the installation of a bespoke telephone system to assist British logistics was not deemed of sufficient importance to the war effort to overrule the national concerns of post-war industrial positioning.

A failure of 'civilianization'?

Although the work of the SECR employees at Boulogne did not create problems related specifically to the integration of civil and military labour, the continued growth of the BEF and consequent increase in demand for stores to be processed through the Channel ports created immense strain in the system. Dent was also increasingly disengaged from the project. Such were the competing demands for men of recognised organisational ability, that Dent's commitments were numerous by the summer of 1915. In addition to his responsibilities with the REC, Dent was personally involved in the interviewing of applicants for commissions in the Railway Operating Division, and in the identification and organisation of Belgian railwaymen from among the refugees in Britain. Consequently, the day-to-day operations at the Bassin Loubet were left to Francis Flood-Page, the company's Northern District Superintendent. Although clearly a capable man (he would receive the Military Cross in 1916),[68] Flood-Page lacked both the experience and authority of the SECR's General Manager.

Despite encouraging early signs of 'considerable progress' being made in the arrangement of the storage accommodation, by mid-May – just weeks after the SECR had taken over – the

[66] G.J. De Groot, *Douglas Haig, 1861-1928* (London: Unwin Hyman, 1988), p. 168.
[67] Even then, as Philpott has demonstrated, there was a 'reticence' among both British and French leaders (political and military) to accept the 'give and take' of alliance politics. See W. Philpott, 'Managing the British Way in Warfare: France and Britain's Continental Commitment, 1904-1918', in *The British Way in Warfare: Power and the International System, 1856-1956: Essays in honour of David French*, ed. by K. Neilson and G. Kennedy (Farnham: Ashgate, 2010), pp. 83–100 (p. 85).
[68] I am indebted to Jim Greaves of the South-Eastern and Chatham Railway Society for providing this information.

level of congestion at Boulogne reached a stage at which the Director of Supplies had to authorise the stacking of stores 'in the open'.[69] The following month, the sustained increase in demand for ammunition from the front led GHQ to request additional labour to be sent to Boulogne to ensure that the shells required at the front could be discharged and sent forward every day.[70] For the specialist duty of handling potentially lethal explosives, the Army Service Corps [ASC] was required to transfer men from Calais on a temporary basis to alleviate the immediate problem.[71] By late August, the Director of Supplies (Brigadier-General E.E. Carter) had clearly begun to lose patience with what he deemed 'the so called Dent scheme's' inability to clear the ports as promised by the railway company the previous winter.[72]

A report was commissioned by Carter following an inspection of the port and discussed at a conference held by the IGC on 1 September. The report focused upon the 'difficulties which had been experienced since the introduction of the working under [the] SECR', and concluded with a decision being made to revert back to the 'old method' of removing supplies for a fortnight's trial.[73] The ASC regained the responsibility for the removal of stores from the quayside, with the personnel of the SECR retained purely for the discharge of ships and as labour to be directed by the military. The trial was found to be 'an unqualified success, as ships were offloaded and deal with more quickly', with all the military departments concerned wishing for the scheme to continue.[74] The naval departments were less satisfied, however, and a report proposing a reversion to the 'old method' of discharging ships was forwarded to the Principal Naval Transport Officer on 1 October.[75] Despite the protestations of the IGC who was ill-disposed to 'disturb the existing arrangement',[76] the War Office was forced to concede

[69] WO 95/75 diary entries, 3 and 14 May 1915.
[70] TNA: PRO WO 95/3957 Inspector General, diary entry, 15 June 1915.
[71] WO 95/3957 diary entry, 15 June 1915; TNA: PRO WO 107/296 Report upon the Work of the Quartermaster-General's Branch of the Staff and Directorates Controlled. British Armies in France and Flanders, 1914-1918, p. 61. Officers attached to Boulogne purely for training purposes only also found themselves pressed into action to help clear the backlogs. See Imperial War Museum, Private Papers of Sir Eric de Normann, 72/72/1 de Normann to his mother, 3 September 1915.
[72] WO 95/75 diary entry, 25 August 1915.
[73] WO 95/75 diary entry, 1 September 1915.
[74] WO 95/3961 diary entry, 12 October 1915. Those consulted were from the same departments as contributed to discussions regarding the commencement of the experiment.
[75] TNA: PRO MT 23/443/4 Naval Transport Work Overseas. Report of Proceedings of Principal Naval Transport Officer, 3 October 1915. This report does not appear to have survived.
[76] WO 95/3961 diary entry, 12 October 1915.

that with the labour on shore now back in the hands of the army, it was illogical for the labour on board the ships to remain outside the control of the navy.[77] The argument was particularly compelling when it is remembered that of all the supply ports under the control of the BEF during 1915 (Boulogne, Calais, Le Havre, Marseilles and Rouen), only Boulogne had been subject to the 'single authority' experiment involving the employment of civilian experts in coordinating roles. As a result, the SECR surrendered responsibility for the unloading of ships on 24 October; six months after the experiment had begun it had been terminated.[78]

Conclusion

In his pioneering study of British logistics, Ian M. Brown concludes that the decision to revert back to military control at the port was 'apparently a case of anti-civilian phobia', with critics fearing that the SECR personnel's inexperience of warfare may have rendered them incapable of supplying the demands of military warfare.[79] This conclusion overplays the dominance of 'ingrained distrust' of civilians within the BEF.[80] Throughout 1915, as the British Army began to grapple with the complexities and challenges of warfare on a scale previously unimagined, the BEF sought the advice of technical experts on everything from shipping to shoe repairs.[81] The 'Dent scheme' was not persevered with into 1916 and beyond because the nature of the British war effort to that point had not provided the required impetus for the military, and indeed political, authorities to re-evaluate the *entire* logistical bedrock underpinning the BEF's existence.[82] Although congestion remained a considerable issue on both sides of the Channel, it had not as yet become the compelling factor in operations that it would become during the following summer when the BEF engaged in offensive action on a hitherto unimagined scale.[83] Despite being largely ignored in subsequent works, the 'Dent mission' is worthy of study as it demonstrates how the evolving industrial character of the Western Front was fully developed

[77] WO 95/3961 diary entry, 26 October 1915.
[78] WO 95/3961 Thomson to Macgregor, 24 October 1915; Clayton to Macgregor, 25 October 1915.
[79] Brown, *British Logistics*, pp. 88-9; WO 158/2-3
[80] D. Lloyd George, *War Memoirs of David Lloyd George*, 2 vols. (London: Odham's Press, 1938), I, p. 83.
[81] TNA: PRO MT 23/457/23 Difficulties and congestion at various ports. Constitution of Committee of Enquiry, 1 November 1915; WO 95/3957 diary entry, 17 June 1915.
[82] As the QMG's final report states: 'The stationary character of the warfare of the first two years placed no undue strain upon the Quartermaster General's Branch'. See TNA: PRO WO 107/69 Work of the Q.M.G's branch of the staff: and Directorates controlled, British Armies in France and Flanders 1914-1918: Report, p. 1.
[83] J.C. Harding-Newman, *Modern Military Administration, Organization and Transportation* (Aldershot: Gale & Polden, 1933), p. 16.

neither at the end of 1914 when Dent made his initial observations, nor in October 1915 when the experiment was drawn to a close.

Although there was a clear realisation within the military of the potential benefits of utilising civilian expertise to increase labour productivity and improve fluidity on the transport network in northern France. However, there was neither the political will to expand this process to cover all ports, nor the urgent requirement for this expertise to be employed on anything other than an 'ad hoc', localised level until the demands of the Somme emphasized the inherent weaknesses in the extant structure. The 'unmistakable proof of the value, indeed, the necessity of centralised control' had yet to surface.[84] As Geddes would later bemoan in his survey of British transportation on the Western Front, the emphasis placed upon decentralisation of command had led to the development of a transport system in which staff duties had become heavily 'compartmentalised' and in which no single authority – civil or military – controlled the entire logistics network from factory to front line.[85] The single-dock experiment at Boulogne was essentially little more than tinkering with one link in a long and complex chain; one with numerous weaknesses.

As a result, the SECR's failure to generate the projected levels of productivity – in part the result of French protectionism, as well as that of Dent's overambitious estimates and the continuing increases in demands being made on the port – overshadowed the long-term improvements made by the SECR. The relatively small-scale of the experiment combined with the undesirable complications of operating different working practices at Boulogne to the other BEF ports to see the system 'shelved' before the end of 1915.[86] The SECR would, however, leave behind a port which was in a much better position than any other in use by the BEF to deal with the colossal demands of industrial war, as was proven by the results of Sir Eric Geddes' investigations into the efficiency of the transport network in late 1916. Geddes found that Boulogne was the only port in use by the BEF during the Battle of the

[84] WO 107/296 Report upon the Work of the Quartermaster-General's Branch, p. 12.
[85] Granet Papers, MSS.191/3/3/4 Geddes to Lloyd George, 15 September 1916, p. 9.
[86] Brown, *British Logistics*, p. 106, f.n. 52.

Somme adhering to the principles of contingency (by ensuring that the port was not being asked to work at more than eighty per cent of its capacity) to allow time for dealing with inevitable fluctuations in the arrivals of ships and sufficient flexibility to cope with unforeseeable emergencies.[87]

During a period in which the eventual scale of the war remained beyond the comprehension of the authorities, the experiments of 1915 involving the SECR at the port of Boulogne demonstrate both the types of skills required to sustain the Western Front, and the contribution that even those not trained, and in many cases too old to fight, could make to the successful prosecution of the war. Yet it would take the gargantuan struggles of 1916 at Verdun and the Somme, and the corresponding failure of the extant system of supply to sustain both conflagrations, to create the necessary conditions – political, military and inter-allied – to demonstrate the need for a comprehensive reassessment of the logistics network on the Western Front. Unlike Geddes, freed from his responsibilities to the North-Eastern Railway to oversee the installation of an entirely new, all-encompassing transport directorate with the support of Lloyd George, Haig and the French; the Bassin Loubet in 1915 was, for Francis Dent, just one of numerous concerns for the General Manager of the SECR. At the end of 1915 the importance of the particular job being carried out by the SECR, and indeed of particular role played by 'the science of transportation' in the prosecution of industrialised warfare,[88] was yet to be fully understood. In the developing historiography on the conduct of the First World War, this continues to be the case.

[87] Granet Papers, MSS.191/3/3/102 Memorandum by Sir Eric Geddes, 26 November 1916, pp. 4-5.
[88] M.G. Taylor, 'Land Transportation in the Late War', *Royal United Services Institution. Journal*, 66 (1921), 699–722 (p. 701).