The Role of Ports in Supplying the Western Front

A key component in any military capability is logistics; support to the personnel engaged, the equipment used and the replenishment of stores. During the First World War, there were limited numbers of motor vehicles, an embryonic road network, and air transport was novel and unreliable, this meant that logistics was the domain of the railway networks, ports and harbours. For the British Expeditionary Forces (BEF), there existed the added complication of the English Channel, which required a sea passage for any deployment or provision of support.

The combination of maritime and railway transportation systems existed on both sides of the Channel. Stores and personnel travelled between factory and barracks to warehouse and front line via train, canal barge, ferry and then back to trains and barges. Returning soldiers, the wounded and refugees traversed the route in reverse utilising the same infrastructure and facilities.

Mark Whitmore from the Imperial War Museum highlights that: “Maintaining these huge forces in the field - up to 2 million men were serving on the Western Front - required vast amounts of supplies. Every bullet, blanket, bandage, artillery battery or tin of bully beef had to be manufactured and transported where and when it was required. By 1918 each Division of about 12,000 men needed about 1,000 tons of supplies every day - equivalent to two supply trains each of 50 wagons. When an offensive was being planned, even larger quantities of material had to be concentrated in preparation for the operations that might last for months.”
UK-side of the Channel

The key points of departure for men and supplies from the UK were the Channel ports, often facilities were both extended and developed from scratch at convenient locations along the coast. The primary ports and their main roles were: Southampton, Dublin, Glasgow, Queenstown, Belfast, and Jersey: troops and horses; Newhaven: stores; Liverpool: mechanical transport and frozen meat; Avonmouth: mechanical transport and petrol; London: stevedores; Devonport: Siege Brigade; Dover: Naval Brigade & troops. Portsmouth was used for ship building, repairs and refit, as were a number of smaller ports such as Littlehampton.

A major harbour was constructed at Richborough whose purpose was to provide the B.E.F. with its heavy equipment - tanks, guns, railway locomotives, ammunition, horses and fuel. Here, the first use of specially designed sea-going Roll On / Roll Off ferries began in 1918, this complemented and extended the existing barge services (which continued throughout the war).

Ports west of Southampton also contributed to the transport and deployment of men and material but due to longer journey times they were not as extensively used. As an example, Plymouth became a major landing port for US troops deployed from the continental US prior to embarking for France.

Volumes of Shipping During six weeks of 1914

Archibald Hurd’s 1924 volume ‘The Merchant Navy’ gives a detailed account of the scale of sea transport required from the numbers recorded as embarking at English and Irish ports over a six week period between August 9th and September 21st – 1914. During this six week period, a minimum of 93,364 tons of ammunition, stores, food, forage, petrol, vehicles, etc., were carried in addition to personnel and horses. Numbers of personnel and horses included:

<table>
<thead>
<tr>
<th>Port</th>
<th>Officers</th>
<th>Other Ranks</th>
<th>Horses</th>
<th>Nurses and Civilians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southampton</td>
<td>5,028</td>
<td>171,708</td>
<td>51,434</td>
<td>1,389</td>
</tr>
<tr>
<td>Newhaven</td>
<td>66</td>
<td>409</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>--------------</td>
<td>---------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Avonmouth</td>
<td>58</td>
<td>4,547</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Liverpool</td>
<td>16</td>
<td>1,741</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Devonport</td>
<td>30</td>
<td>844</td>
<td>421</td>
<td>-</td>
</tr>
<tr>
<td>Belfast, Dublin &amp; Queenstown</td>
<td>826</td>
<td>25,921</td>
<td>10,184</td>
<td>-</td>
</tr>
<tr>
<td>Totals</td>
<td>6,024</td>
<td>205,040</td>
<td>62,039</td>
<td>1,398</td>
</tr>
</tbody>
</table>

**Southampton**

Although sending troops via Dover to France was fairly straightforward and logical, the military recognised that it would have to spread the load. It had long planned to use Southampton as a major embarkation point for troops heading to Europe and as early as August 1914 it was designated Military Embarkation Port No. 1 – an importance it retained throughout the war. Andrew Roden in his 2014 book ‘Trains to the Trenches’, details that during the Somme Offensive in July 1916, 118,496 casualties arrived at Dover and Southampton. On just one day, the 6th July, a record 10,112 were landed, 7,902 at Southampton and 2,210 at Dover. These men then boarded trains to hospital facilities around the country. Some of those landed at Southampton would have been taken to Royal Victoria Hospital at Netley *(Find out more about Netley Pier in WW1).*

**Dover & Folkestone**

Whereas Southampton was the focal point for the BEF embarkation and had a few days’ notice to prepare, Dover and Folkestone were in the firing line from the very first day of the war with the arrival of thousands of refugees fleeing from the rapid German advance via French and Belgian ports across to Folkestone. On one day 6,000 refugees were landed from Ostend alone, many of them arriving with just the clothes they stood in. The South Eastern & Chatham Railway (SECR) had to deal with the problem of feeding them, finding temporary shelter and then moving them away from the coast to more permanent accommodation. The port of Dover was exclusively taken over by the naval and military authorities and three SECR steamers were also requisitioned for use by the Royal Navy *(Empress, Engadine and Riviera* operating between Dover / Folkestone and Calais / Boulogne).*

Dover Marine station, unfinished at the start of the war, was hurriedly completed. It received steamers conveying the sick and wounded, with over 1,250,000 servicemen arriving
during the war. In addition, leave and draft sailings accounted for the passage of a further 1,750,000 men (Roden 2014).

At Folkestone the Harbour Branch had to cope with an extraordinary amount of war-time traffic with 9,253,652 British officers and men, 537,523 allied troops and 846,919 Red Cross and other workers travelling through. Also handled were 102,641 tons of military and Red Cross freight, 383,098 tons of mail and parcels, 63,985 tons of Expeditionary Force Canteens and 402,968 tons of coal to power the vessels using the port.

Richborough

To increase port capacity, Richborough was developed in 1916 to help provide the B.E.F. with its heavy equipment (tanks, guns, railway locomotives, ammunition, horses and fuel). The River Stour was diverted by cutting a channel to create a new wharf for the cross-channel barge service, with 242 barges in use from here. Between 1916 – 1918 the barge facility exported 1,257,545 tons with a best day record of 6,374 tons in 24 hours.

From 1918 the port operated roll-on roll-off train ferries, the first time these ships had been used in Britain. These train-ferries were more practical for larger and heavier cargos, such as tanks. They had four lines of rails and could carry 54 standard 10-ton waggons. Even heavy locomotives and 14” guns weighing 302 tons each were safely carried to France.

Newhaven

The government took control of Newhaven port from the outbreak of the war, suspending all passenger services to France indefinitely. The port and town of Newhaven were designated a ‘Special Military Area’ under the ‘Defence of the Realm Regulations’ and the Harbour station was closed to the public. The port and harbour facilities, rail sidings and warehousing were greatly enlarged and electric lighting installed to allow for 24-hour operation.

In order to maintain the regularity of shipping, additional workers were sought to load ships at the quayside. Newly employed Chinese Labourers were used at Newhaven Harbour after 1917. Similarly, by February 1918, 100 women were employed to work the docks. Within a month this number had risen to over 400.

The East Sussex First World War Project details how Newhaven played a huge role in supplying the army abroad during the war. Over 866,021 train trucks had delivered war material to the quayside at Newhaven. These supplies had then been delivered to France by 165 ships making a total of 8,778 voyages across the Channel. Over 6 million tons of were delivered to France during these supply trips, transporting around 6,000 tons per day. Eleven of these ships were lost to enemy attacks from mines, submarines, aeroplanes or destroyers with a loss of 99 sailors. The names of those lost are inscribed on the Newhaven Transport Memorial.
French-side of the Channel

The key ports of Boulogne, Calais and Dunkirk on the coast of Northern France, were used by the British from August 1914 due to their proximity to the south coast of England. Between November 1916 and June 1917 forty-three per cent of all British imports shipped into France came through the 3 key ports. Numerous hospitals were set up near the ports to treat the wounded, especially for the worst cases which could not be evacuated to England.

Other French ports receiving war material include Dieppe, Rouen, St Nazaire, Saint Valery sur Seine, Nantes, Le Havre and Ostend. A key feature of the recipient ports was their infrastructure with several having access to both significant canal / waterway links as well as railway links to Paris and the areas of the Western Front.

Boulogne: In total 1,700,000 soldiers passed through the port of Boulogne-sur-Mer between 1914 and 1916. A French report of the period, indicates the presence of 1,226 officers and 70,000 in Boulogne-sur-Mer.

Calais: A key port for the supply of arms and reinforcements to the Western Front. In the summer of 1918, there were 2,024 officers and 90,189 privates stationed in the town. The train ferries which began service from Richborough in 1918 landed in Calais with tanks, guns, locomotives and wagons bound for English units fighting on French soil. Operation of the ferries continued until 21 January 1921 to allow the repatriation of military equipment to Britain.

Le Havre: The port consists of a series of canal-like docks, that connect Le Havre to the Seine. The city served as a base for British warships with 1.9 million British soldiers passing through during the war.

Researched and written by Andrew Daw (MAT HLF Forgotten Wrecks Volunteer).