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British Maritime Coal and Commercial Control in the First World War

Far More Than Mere Blockade

JOSEPH ZELLER

Abstract: The nature of British commercial control in the First World War has been understood primarily as a naval blockade which was actually only part of a complex and interwoven system. While Germany's blockade relied on the destructive potential of its shells and torpedoes, Britain's blockade employed more flexible and formidable powers, those of coal, geography, and commerce. Britain possessed advantages that ensured support abroad would make its way across to European shores while Germany's support could not. Britain's winning strategy, begun before the First World War and continued throughout the war, focused on maintaining commercial control of the world's trading routes and fuel.

THE GREAT WAR was a transformative event in which Canada played a significant role. That contribution was enabled by the elaborate system of commercial and fuel control that provided Great Britain and her allies with dominance over the world's waterways across which Canadian support, in addition to that of so many others, had to travel.¹

That aid required a robust shipping infrastructure with ample fuel, namely coal. This was true of all British, American, Canadian,

¹ This article represents ongoing doctoral studies and incorporates research findings from pending dissertation chapters.

Indian, Australian, and other overseas imperial holdings to arrive from abroad and fight for the Triple Entente. Weapons, ammunition, food, fuel, medical supplies, uniforms, and raw materials also required this maritime access and proved central to the war effort as a whole. This was especially true as ever greater numbers of Europe's own domestic labour force became soldiers who required food even as they could no longer participate in growing it over contested land which could no longer produce anything save casualties.²

Of equal importance is the fact that Germany and its alliance did not have access to such international relief and over the course of four long years was forced to subsist on an ever more overstretched economy until 1918 when they faltered and failed, requiring Germany and its allies to surrender.³ This blockade of Germany has historically been viewed as the primary aim of a predominantly military-based naval blockade of Germany. It is a notion that this article aims to disprove.

To some degree, this article responds to the gap most recently identified in Nicholas Lambert's *Planning Armageddon: British Economic Warfare and the First World War*. He noted that, "Evaluating the extent to which the blockade worked its dire strangulation upon Germany after 1916" remains a task yet undone.⁴ His well-written and well-substantiated research attempts to recognise both the extensive economic elements of blockade, while also maintaining its naval preoccupation by focusing on the admiralty's abortive efforts to bring about "economic Armageddon" at the outset of hostilities.⁵

This article examines the background, nature, and effect of coal and the British blockade, including the period after 1916. First, it establishes the significant role of commercial control, relying on coal and coaling stations established by Britain to protect its empire even before the First World War. Then, examining early in the war, it demonstrates the effectiveness of Britain's commercial control in "convincing" German-aligned countries and neutrals to change support to the Triple Entente. Finally, it explains the culminating stage of the blockade which led to surrender by the Central Powers.

² Stephen King-Hall, *The War on Sea, 1914-1918* (London, 1929), 10.

³ *Ibid.*, 74.

⁴ Nicholas A. Lambert, *Planning Armageddon: British Economic Warfare and the First World War* (London: Harvard University Press, 2012), 5031.

⁵ *Ibid.*, 500-501.



HMS *Ariadne* in Halifax looking toward drydock and Halifax Sugar Refinery (demolished 1917). Hull black with white strakes, funnels yellow. [Photo Courtesy of Dr. Mark Milner]

PRE-FIRST WORLD WAR: ESTABLISHING BRITISH COMMERCIAL CONTROL

Commercial control by the Triple Entente was fundamentally non-military in nature. Blockading Germany was largely a by-product of its activities, rather than its only goal. Britain required overseas trade in a way that few other nations did. Sixty-four percent of its people's caloric intake came from abroad.⁶ Even if it had not required the steady influx of raw materials to run its industry or the profits from international commerce to fuel its economy, food alone would have forced Britain to ensure the massive and steady flow of commercial shipping to its shore.

Largely as a result of this dependency, British control of coal formed a central element of its commercial system even before the actual outbreak of hostilities. This role was neatly summarised in the 1927 historical retrospective, *The British Coal Dilemma*:

⁶ Keith Neilson, "Reinforcements and Supplies from Overseas: British Strategic Sealift in the First World War," in *The Merchant Marine in International Affairs, 1850-1950*, Greg Kennedy, ed., (London: Routledge, 2000), 32.

When war was declared in 1914 there was no industry in Great Britain more essential to the nation's existence. From 3,100 mines with an invested capital of £135,000,000 came a product worth £136,000,000. From these mines more than 1,118,000 men were deriving a livelihood. To these workers and their families, approximately 10 per cent of Great Britain's population, £93,000,000 was paid in wages. From these same mines, too, 3,800 royalty owners were securing an annual income of approximately £6,000,000, and some 130,000 investors were receiving a profit of £13,000,000. An industry with wages substantially higher than in most others in Great Britain; with unemployment almost negligible; with conditions constantly improving and an accident rate continually decreasing—an industry which, for almost three-quarters of a century, had been enjoying the fruits of uninterrupted growth and progress—such, in short, was the picture of British coal mining in the year preceding the outbreak of the World War.⁷

Britain was producing half of the coal being mined in Europe and one-fifth of what the entire world was producing overall. Most of Britain's coal was used domestically, but what was exported still made up the bulk of British foreign trade.⁸ The world relied on British coal supply, as did Britain, itself.⁹ Coal brought commerce to Britain's shores and to all parts of the empire, where well stocked depots provided cheap and efficient steaming coal to anyone wanting to buy it. *The British Coal-Mining Industry During the War* by Sir R.A.S. Redmayne, published in 1923, asserted:

*Of all the industries that contributed to the successful issue of the War, perhaps the most important was the coal-mining industry. It is quite clear that without an adequate supply of coal for the manufacture of munitions it would have been impossible to have brought the War to a successful conclusion...*¹⁰

⁷ Isador Lubin, Helen Everett, and the Institute of Economics, *The British Coal Dilemma*, The Institute of Economics Investigation in Industry and Labor (New York: The Macmillan company, 1927), 29.

⁸ Michael Peart Jackson, *The Price of Coal* (London: Croom Helm, 1974), 5.

⁹ Max E. Fletcher, "From Coal to Oil in British Shipping," *The Journal of Transport History* 3, no. 1 (1975), 6.

¹⁰ R.A.S. Redmayne, *The British Coal-Mining Industry During the War* (Oxford: Clarendon Press, 1923), 257, emphasis added.

The impact of this industry was global in reach. At its most fundamental, Britain possessed something that the rest of the world both wanted and needed: Britain's global coaling supply network. In 1914, although oil-driven shipping existed and was gaining importance, 88.96 percent of the world's total merchant fleet depended exclusively on coal, only 2.62 percent utilised boilers capable of burning both coal and oil, and 7.95 percent continued to rely solely on sail.¹¹ A mere 0.47 percent of merchant vessels were reliant on oil alone at the outbreak of hostilities. Coal remained supreme.¹² Britain supplied more than 80 percent of the eighty million tons of bunker coal required by world shipping before the war (sixty million tons from the United Kingdom and five million tons from the rest of the British Empire).¹³ Even general historians writing about imperial history at the time noted that British coal and commerce provided a central element of imperial might. Charles Campbell McLeod and Adam Willis Kirkaldy explained in their book, *The Trade, Commerce, and Shipping of the Empire* (1924):

For many a long decade the fuel resources of the United Kingdom have been the backbone of her trade, her shipping, and industries. Good, cheap, abundant coal is one of the great secrets of our manufacturing and commercial success ... Why did we become commercially supreme on the sea? ... our manufacturing industries require large quantities of raw materials, and our population requires many foodstuffs which are produced abroad. These raw materials and food stuffs are very bulky when compared with finished products. Thus although we supplied so many parts of the world with manufactured goods, the bulk of our imports would have been many times greater than the bulk of our exports, had the latter consisted exclusively of finished products. This would have meant full ships arriving at but half full or even empty ships leaving our ports. Fortunately, however, the development of our coal resources, and the demand for our coal by foreign nations gave us a bulky material for export which filled otherwise only partially loaded

¹¹ Fletcher, "From Coal to Oil in British Shipping," 6.

¹² Ibid., 8. This would remain the case until 1935.

¹³ Ibid., 3.

ships. With full cargoes in both directions, you can quote low freights. Empty ships in one direction entail heavy freights.¹⁴

Even the navy of the Austro-Hungarian Empire relied heavily on British coal. The Austro-Hungarian Empire possessed no domestic source of high quality coal. As late as 1912, it depended on Britain to supply more than 98 percent of its navy's needs.¹⁵ Despite its shared border with Germany, British sources remained cheaper, more available, and of higher quality than supplies from any other nation in Europe. Austria-Hungary attempted to resolve its dependency by stockpiling enough fuel to retain operational ability in the event of a short war. In 1913, it purchased 405,302 tons of high quality steaming coal from Great Britain (up from 153,248 in 1912 and 56,967 tons in 1904) while also seeking to secure a different source of supply.¹⁶ However, despite a willingness to pay more for coal of lesser quality, the very best it could achieve before the outbreak of hostilities was a German source that provided 12.1 percent of the amount desired and an American source from Virginia able to supplement an additional 11.6 percent of the requirement.¹⁷ As war loomed and the outbreak of hostilities threatened to cut all lines of British supply (as had been done with some regularity since the Franco-Prussian war almost half a century earlier), the Austro-Hungarian navy still outsourced 75 percent of its operational needs to British supplies. Its battle fleet required 1,000 tons of coal for each hour of operations. Despite rigorous rationing, supplies diminished so that by 1918, less than 100,000 tons of coal remained. An Austro-Hungarian captain later recalled: "the battle fleet was not in good form [because] for three years ... the crews had been largely inactive."¹⁸

Britain maintained this system through its commercial control over the largest and most powerful empire in the world by 1914, holding dominion over almost a quarter of the earth and over 500

¹⁴ Charles Campbell McLeod and Adam Willis Kirkaldy, *The Trade, Commerce, and Shipping of the Empire ... With Map, Etc* (London: W. Collins Sons & Co., 1924), 166–167, emphasis added.

¹⁵ Lawrence Sondhaus, *The Naval Policy of Austria-Hungary, 1867–1918: Navalism, Industrial Development, and the Politics of Dualism* (West Lafayette: Purdue University Press, 1994), 177.

¹⁶ *Ibid.*, 197.

¹⁷ *Ibid.*, 261.

¹⁸ *Ibid.*, 311.



Coaling HMS *Ariadne*, North America and West Indies Squadron. Halifax, 1903. [Library and Archives Canada PA-028472]

million people.¹⁹ British-owned shipping made up almost half (47.5 percent) of the world's total by tonnage (by 1919, it would be reduced to 39 percent).²⁰ Britain had almost four times the commercial tonnage as its next largest rival, Germany (5,100,000 tons) and ten times that of its third largest rival, the United States (2,000,000 tons).²¹

The peacetime importance of shipping control helps to explain why British power during wartime remained fundamentally non-military in nature. Britain had to ensure a steady trading flow in peacetime, as well as later in wartime, and could not afford to alienate the many neutral overseas empires involved in that trade. Great Britain relied on its network of economic, diplomatic, and logistical assets to guarantee that in whatever direction the trade, there would be good reason for those carrying it to stop at the British Isles. Its military encouraged this process through passively safeguarding it

¹⁹ Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (New York: Oxford University Press, 1981), 17.

²⁰ Charles Ernest Fayle, *The War and the Shipping Industry* (London: H. Milford, Oxford University Press, 1927), 330, 415.

²¹ S. G. Sturmev and the International Maritime Economic History Association, *British Shipping and World Competition* (St. John's: International Maritime Economic History Association, 2010), 32.

and allowing the trade to pass without direct interference, lest that trade go elsewhere to another power better able to cater to its needs.

EARLY FIRST WORLD WAR: DEEPENING COMMERCIAL CONTROL

The Royal Navy's relatively small number of water engagements is sometimes compared unfavorably to the constant fighting in the trenches during the course of those four years of war.²² The navy's lack of action was not because the navy lacked importance or that the force was somehow undedicated or incompetent. Rather, it was the opposite; this force was central to the war effort but performed its role best when disturbing it the least.²³ Sir Julian Corbett, one of the greatest British naval thinkers and historians of his age, observed this in 1915, in his pamphlet entitled *The Specter of Navalism*:

"Navalism," as Germans picture it—that is, the use of naval predominance to deny the world the freedom of the seas and temper with national independence—has never existed ... Her policy knows nothing between an embrace and the stab in the back, and in her aborted vision, that always sees red, international trade is only disguised hostility. She has not yet acquired the wit to make it a bond of peace and see in it a field of rich harvest...²⁴

Understand that for an Empire to endure it must be felt by the rest of the world as a convenience. Let it once lose hold of this fundamental secret and sooner or later nations will combine to remove it as a common nuisance. For this reason alone, and from no special political virtue, British naval supremacy can never become anything that approaches "Navalism." Plain common sense has always forbidden it, and always will, till the Anglo-Saxon spirit becomes Germanized and a leopard changes his spots.²⁵

²² Wolfgang Wegener, *The Naval Strategy of the World War* (Annapolis: Naval Institute Press, 1989), 13.

²³ Ibid., 14.

²⁴ Ibid., 4–7.

²⁵ Ibid., 8.

Britain's navy did not exist to fight any particular battle or destroy any specific fleet or ship nearly as much as it existed to safeguard commerce. It was a factor helping to convince ship owners and suppliers that Britain was committed to putting goods aboard a merchant ship and sending these goods to Britain or wherever it needed them. For the sake of their livelihoods and putting food on their own tables, these thousands of merchant ships provided the food Britain used to fill its own tables. It was the independent decisions of these ships' individual investors, captains, and crew members which decided the fate of nations. In 1915, an article in the London *Daily Telegraph* declared: "The British Navy has not dashed under the German shore guns, or danced among the enemy's mine-fields; yet it has undisputed command not of one, but of every sea"²⁶

Germany tried to influence this community by force alone: first through its surface raiders in 1914 and then through use of its U-boats, particularly their unrestricted campaigns from 1915 onwards. Partly as a result of this tremendously successful, or at least destructive, campaign, Germany lost. With every vessel that it sank, Germany made new enemies and diminished its available international pool of shipping while Britain acquired an ever larger portion. Germany's supplies, received from its sole point of access across the Baltic, constituted British leavings that Britain did not need to secure its requirements. As British shipping losses mounted due to German sinkings, Britain was forced to acquire an ever larger portion of what remained until Britain needed everything and Germany was left with nothing. This left Germany convinced that it had been betrayed and abandoned by the neutral nations that international shipping had increasingly come to represent. Germany was then willing to alienate these neutrals, just as Germany felt it had been alienated. One of the German navy's own internal memorandums stated:

As England is trying to destroy our trade it is only fair if we retaliate by carrying on the campaign against her trade by all possible means. Further, as England completely disregards International Law in her actions, there is not the least reason why we should exercise any restraint in our conduct of the war. We can wound England most seriously by

²⁶ As quoted in Arthur Jacob Marder, *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, 1904-1919*, vol. 2. *The War Years: To the Eve of Jutland* (London: Oxford University Press, 1965), xxvi, 130, 466.

injuring her trade. By means of the U-boat we should be able to inflict the greatest injury. We must therefore make use of this weapon, and do so, moreover, in the way most suited to its peculiarities. The more vigorously the war is prosecuted the sooner will it come to an end, and countless human beings and treasure will be saved if the duration of the war curtailed. Consequently a U-boat cannot spare the crews of steamers, but must send them to the bottom with their ships.²⁷

British effort was directed towards coaxing neutral powers to become Britain's allies or supporters, while the German blockading efforts were increasingly defined by treating neutrals as enemies. Coal and access to commercial sea-lanes offered a positive element by which to encourage support in exchange for quantifiable and necessary benefit, whereas Germany relied on destruction of seaborne trade. Germany pushed neutrals away, while Britain, with its recourse to coal and commerce, enticed them. The British blockade operated according to policies integral to controlling international transport and trade, regulating traffic directed towards Great Britain and intercepting goods and shipping directed towards Germany. A British Admiralty report provided the following summary:

It would be difficult to over-estimate the importance to the allied cause of the British control over coal and oil cargoes and bunker facilities. The policy by which these were restricted was based on measures launched almost haphazard in the early days of the war to prevent the use of British coal by German raiders and the German fleet, and to deprive of British bunkers (and so to immobilise them) any vessels suspected of un-neutral service.²⁸

The system of coal-driven leverage used by Britain during the war was called "bunker control." This term refers to the means by which Britain restricted and rationed access of coal, the fuel on which international oceangoing commerce relied, to control where it went. The British Empire could follow this strategy because coal was a relatively inefficient fuel source which took up a great deal

²⁷ Reinhard Scheer, *Germany's High Sea Fleet in the World War* (London: Cassell and Company, 1920), 222.

²⁸ Control over neutral shipping in war: bunker control, 1914–18, ADM 186/56, British National Archives (BNA), 5, emphasis added.

of space aboard a commercial vessel and imposed a limited range, thus requiring numerous refueling stops for vessels crossing the oceans. In much the same way that modern cars must stop at many gas stations while driving from one coast of Canada to the other, these merchant ships had to stop at their respective fuel depots, of which Britain held a near monopoly. The 181 coaling stations controlled by Great Britain were among the most desirable and well-developed refueling points across the world. They constituted the only worldwide network able to access and facilitate all of the world commercial sea lanes and trade routes.²⁹ Whether the goods were American, Chinese, Russian, or German, it was almost guaranteed that at some point between their origin and destination they would be forced to depend on British bunker facilities located within one of its coaling stations. This reliance was tremendously important as all of Europe had invested heavily in overseas empires which were only accessible so long as Great Britain allowed them to be. In a world where 84 percent of the land on earth fell under European dominion, access abroad mattered. Former British wartime director of ship requisitioning, secretary of the Allied Maritime Transport Council, and chairman of the Allied Maritime Transport Executive stated: "The monopoly of bunkers, without which ships cannot move, is a very effective instrument for determining what cargoes ships which desire to sail shall carry."³⁰

Even in the earliest months of the war, the British government was exercising discretion over the sale and use of its best coal. In fact, every contract of sale for Britain's most coveted Welsh anthracite had long included in peacetime the clause that in the event of war the agreement would be voided in favour of its nation's needs.

Besides including a clause voiding the contract in the event of war, all merchants of British coal, even those in neutral harbors of Brazil, the United States, or China had to sign an agreement whereby they would not provide a blacklisted ship with any type of coal from

²⁹ Fletcher, "From Coal to Oil in British Shipping," 3.

³⁰ J.A. Salter, *Allied Shipping Control* (Oxford: Clarendon Press, 1921), 107.

any source.³¹ Otherwise, they would be blacklisted themselves. Any ship proven to be carrying contraband intended for enemy powers was placed on a blacklist. Not only would this ship be denied British coal, but the owner of this ship would now be blacklisted, as would all other ships owned by that owner. If, for example, a Brazilian private coal merchant provided any fuel, even fuel that was Brazilian or American in origin, to a blacklisted ship, that merchant would be risking the future stability and prosperity of his business because his license to deal in British coal would be revoked. As most trading ships were part of large fleets owned by large corporations, this was a particularly terrifying threat.³² J.A. Salter described coal and coal bunker's persuasiveness:

Great Britain and her Allies controlled the main sources of supply of bunker coal in Europe and the Middle East, and the main bunker depots on most of the great trade routes of the world. *This provided a most effective instrument by which to induce neutral owners to allot their tonnage to work that was in the interests of the Allies*, as the following short statement of the world's sources of supply and the principal coaling depots will show.

³¹ Charles Edward Evans, *Hints to Coal Buyers [with Five Plates.]* (Cardiff: Business Statistics Publishing Co., 1909), 46. The standard prewar contract for Welsh anthracite included justifications needed to cancel sales (emphasis added): "This contract is subject to the usual exceptions of Strikes, Lock-Outs, Riots, Accidents, Epidemics, Dismissal and usual or unusual stoppages of all descriptions, at Colliery or Collieries, Factory or Factories, from which the above coals, coke, or fuel, are to be drawn, and on or at Railways or Docks, or of Vessel's crew, or Dock hands, including Force Majeure, preventing or delaying production, deliveries or chartering, and such time of deliveries to be proportionately extended as customary, except in case of a general strike of Associated Collieries in South Wales, when Sellers shall have the option of cancelling this contract, *In case of European War, Epidemic, at port or ports of shipment and/or delivery, or imposition of quarantine on vessels from such port or ports, Sellers shall have the option of cancelling this contract.* It is also agreed that Sellers shall have the right of suspending deliveries or of cancelling balance of contract, if payment for any delivery is in arrear, or in, case Of Purchasers being bankrupt or making any acknowledgment that they are unable to pay in full, Any Vessel being chartered and advised, and which is expected due to load within the stipulated time of shipment of this contract, shall be accepted in full execution of the same." Although this type of clause was neither unique to Great Britain or the commodity of coal such conditions still represented an increasingly successful desire to retain control in times of need.

³² Fayle, *The War and the Shipping Industry*, 9.

A. *Europe*. The British Isles represented practically the only source of supply during the war, the amount of Westphalian coal finding its way whether from Germany or Rotterdam being negligible.

B. *Africa and Australasia*. Durban, South Australia, New Zealand, Newcastle (N.S.W.), and Freemantle.

D. *India*. Calcutta.

E. *Far East*. North China and Japan.

F. *America*. Pacific Coast; British Columbia and Chile; Atlantic Coast: New York, Baltimore, Virginia, and Pensacola.

The areas from which coal was obtained were thus under British control with two exceptions, the Far East and the American continent.³³

British bunker control meant that shipping voluntarily registered their cargo and destination ahead of time and voluntarily stopped for inspection at a British port. This arrangement eventually developed into a comprehensive system of commercial regulation, transport visas and examinations which derived its name from the code-word describing it: "Navicert." This system first became operative in March 1916 when it was applied to cargoes shipped from the United States to the Scandinavian countries adjacent to Germany. It, in essence, provided a commercial passport to particular consignments of goods before they were shipped which was transmitted ahead by telegraph and rechecked at the ships destination. This process insured the consignment an undisturbed passage.³⁴

It is interesting to note that the system was originally introduced as a means for captains to inquire prior to setting off whether the goods on board would be allowed through, based on current contraband definitions. If approved, the ships would be rewarded with expedited docking and coaling. While this new system of British assessment was evolving, Germany's armed force blockade remained its only recourse. Ships sunk and lives lost could not be returned or remedied.

³³ Salter, *Allied Shipping Control*, 104–105, emphasis added.

³⁴ Hugh Ritchie, *The "Navicert" System During the World War* (Washington: Carnegie Endowment for International Peace, 1938), 1.

While bunker control would undoubtedly become the most important element of British commercial influence, it was not the only system put in place to influence the decisions of international commerce. Rather, it was part of a complementary and overlapping system that Britain came to wield over the course of hostilities. Originally, Britain, like the rest of Europe, based its war plans on the assumption of a short war and had, therefore, sought to minimise economic disruption to its affairs by allowing as much business as possible to continue normally. The exception was a small list of contraband items of a ‘provably warlike nature.’³⁵

In 1914 and 1915, due to narrow interpretation of terms relating to contraband and warlike goods, neutrals were allowed to engage in trade with Britain for coal. However, by 1916, the British supply system had developed into an explicit attempt at rationing the amount of coal that specific neutrals could import in order to prevent surplus production from being sent to Germany. Sweden, Norway, Denmark, and the Netherlands were especially important to this process, as all had coastal access to the Baltic Sea and to the Central Powers at a point beyond direct British interdiction. British policy would greatly discourage the flow of supplies to belligerents, causing great disruption both to belligerents and neutrals. One British diplomatic *attaché* recalled:

The shortage of coal in Germany soon became a question of extreme gravity. Italy was making insistent demands for German coal in return for sulphur and other commodities of great war value. Moreover, it was necessary for Germany, in order to conserve her gold, and thereby prevent an adverse exchange, to export as much as possible to the Scandinavian countries in return for their imports of food, iron ore and other commodities. But the most serious aspect of the case was that, as the war progressed, certain firms in Scandinavia on account of their dealings with Germany were placed on our Black List; they were thus unable to obtain British coal ... Up to the year 1914 the Scandinavian countries had been accustomed exclusively to use British coal, which is by far the best in Europe. The boilers in all classes of their men-of-war were designed for burning Welsh coal, their railway locomotive boilers for English coal, and in the large industrial works for instance, the majority of the pulp and paper mills the furnaces were arranged for English “smalls” (called in the trade “D.C.B.,

³⁵ Ibid.

Yorkshire Slack, Newcastle Prime and Broomhill Smalls”). Moreover, many large works in Scandinavia had installed patent mechanical stokers, which necessitated the use of small coal for which the furnace arrangements were designed. *There was hardly an industry, large or small, in the three countries that was not entirely dependent upon coal, and, what is more important, upon British coal.*³⁶

Britain dealt with each Scandinavian outlier in a slightly different fashion reflecting its nation’s particular situation, but on the whole they were forced to police themselves and coal was rationed primarily to ships that had already agreed to use it for another round trip to Britain with additional supplies.

Britain also leveraged its empire’s banking institutions and maritime insurance assets to influence neutrals and hinder the economic and commercial activities of its foes.³⁷ These other British facilities would eventually come to synergise well with coal’s power. While coal remained essential to a ship’s physical operation, the other elements ensured an effective and coordinated system of blockade operation as a whole. Great Britain’s near monopoly over international telegraph communications also allowed for the system of coal distribution to be meticulously organised and carefully coordinated, as British sources were able to make instantaneous use of information denied to their enemy counterparts for days if not weeks.³⁸

Due in large measure to these British communication and inspection networks Britain was able to excel at the timely identification of efforts of deception and contraband smuggling. Many attempts at blockade running were aborted by the careful work of the Shipping Intelligence Section and Britain’s vast array of information access.³⁹ Britain proved most adept at seeing through even the most convoluted of circumstances when identifying belligerents. For example, the merchant ship *ss Island* was built in the British

³⁶ M.W.W.P. Rear-Admiral Consett and O. H. Daniel, *The Triumph of Unarmed Forces (1914–1918)* (London: Williams and Norgate, 1923), 117.

³⁷ Henry William Carless Davis, *History of the Blockade: Emergency Departments* (London: Foreign Office, 1921), 10.

³⁸ *Ibid.*, 38.

³⁹ Archibald Colquhoun Bell, *A History of the Blockade of Germany and of the Countries Associated with Her in the Great War: Austria-Hungary, Bulgaria, and Turkey, 1914–1918* (London: H.M Stationary Office, 1937), 104–105.

Isles in 1894 as the ss *Strath Carron*.⁴⁰ Its ownership transferred between various British firms until 1900 when the ship was sold to a Danish company. In fact, the ship's name and registration was changed at least four times before being identified and blacklisted by Britain shortly after the onset of war in 1914. As the vessel was in an American port at the time, Britain was unable to seize it. However, even though wartime measures had yet to fully gestate, the lack of refueling prospects still rendered this German resupply vessel inoperable, leading the blacklisted owner to "sell" the ship to an American firm. In March 1915, while under American ownership, the vessel was stopped while attempting to return from the United States to Denmark and seized by the British because of evidence still linking its ongoing operation with its now blacklisted former owner. The ship spent a year impounded in a British port as the American owners tried to prove that the vessel had been legitimately sold and was therefore no longer subject to seizure. Their efforts failed and through some unknown dealings, ownership reverted to the original blacklisted owner. The ship was finally released in August 1916 to its formerly blacklisted Danish owner who managed to remedy his blacklisted status, only to be seized by Germany on its maiden voyage from Denmark.⁴¹ Although not technically liable for seizure according to German regulations, the ship was still taken because, unlike up-to-date British records, Germany's were six months out of date and still listed the vessel as a British vessel because during its time in British impound, the British Admiralty used it to transport coal under yet another name.⁴²

The situation of the ss *Island* was by no means unusual. Keeping track of worldwide shipping was central to British effectiveness. The process required time and manpower to create and maintain.⁴³ Another example of the importance and effectiveness of British intelligence infrastructure is seen in the case of the American Norfolk

⁴⁰ Translation of the Berlin Imperial Prize Courts ruling of May 30th 1917, 1918 General, Co 323/775, BNA, 78.

⁴¹ Ibid. Presumably they were removed from the blacklist somehow but no details on the subject were available.

⁴² Translation of the Berlin Imperial Prize Courts ruling of May 30th 1917, Co 323/775, 1918 General, BNA, 78.

⁴³ Bell, *A History of the Blockade of Germany and of the Countries Associated with Her in the Great War*, 413.

Smelting Company which in 1917 attempted to send a cargo of copper to Italy aboard the ss *Ascot*.

During that 1917 voyage, Britain, through its far-reaching web of information, tracked the ship to a port in Italy, there confiscated its cargo and blacklisted the Norfolk Smelting Company because it was determined that the Norfolk Smelting Company was, in fact, controlled by an American branch of Beer, Sondheimer, and Company of Germany. Allegedly, the Norfolk Smelting Company was merely assuming the lease of manufacturing facilities held by the German company, which no longer had a means of transporting materials abroad because of its inability to obtain coal. British investigations swiftly revealed that not only were both companies simultaneously operating from the same office space in New York, but, more importantly, the ship's representative had failed to direct the ship's cargo as committed to in the original Navicert issued bill of lading. Instead, Italian shipping agents had been directed to act according to verbal instructions provided by a director of Beer, Sondheimer, and Company, and the cargo had been directed to be delivered to a different party than specified in the official documents. These directions were uncovered by British shipping intelligence. British allied Italian representatives were able then to make a legal seizure of the ship and its cargo, thus denying Germany resupply and providing a clear deterrent for others who might attempt similar action.⁴⁴

The British blockade infrastructure was able to effectively monitor a vast array of commercial and shipping transactions. Without firing a single shot or needing to destroy vessel and cargo, Britain could identify and seize contraband cargo. Its ability to gather and decipher information, monitor situations, and determine destinations was reliant on its commercial dominance and its monopoly of coal and coaling stations, and global communications.

These thousands of individual shipping interactions and idiosyncrasies made up the tidal wave of supplies that powered the British allied war effort while also denying supplies and fuel to Germany and its allies. Britain did not have to destroy commerce attempting to supply the German war effort because it was able to successfully manipulate or co-opt it.

Neutral nations like those in Scandinavia resented Britain interfering with their trade and relations between them and Britain

⁴⁴ Gibraltar Prize Courts ruling October 24, 1917, General 1918, Co 323/775, BNA, 82.

worsened until repeated German U-boat attacks and other poor international relations decisions by Germany finally made Germany the common enemy of so many. Accordingly in 1915, Italy declared war on Germany, followed in 1916 by Albania, Portugal, Romania, Cuba, Panama, Greece, Thailand, Liberia, China, and, finally in 1917, the United States.⁴⁵

The brilliance of the British blockade was that most of the time it was exercised merely through Britain choosing with whom it would do business. In coal, Britain had something the entire world wanted and needed, and those unwilling to comply were largely stymied without Britain ever having to fire a shot. Likewise, those wishing to oppose any British accusation could seek appeal in British Prize Courts even as others, who required a more sensitive touch, found their accommodation through diplomatic channels.⁴⁶

END OF THE FIRST WORLD WAR: VICTORY OF COMMERCIAL CONTROL

The start of the end of the First World War can be considered the date when the United States joined the Triple Entente to defeat the Central Powers. It coincided with the end of the diplomatically limited blockade effort. The United States' enormous influence on international trade and the global economy quickly put an end to the last remnants of hesitation against Britain's commercial policies. Bunker control was now able to function without compromise and the complete system of British blockade was fully embraced. Even many of those who previously protested in the name of commercial independence took up the cause of blockade.

The entrance of the United States to the war greatly reinforced Britain's strategy of resource denial. The United States was the neutral that Britain was most reluctant to offend as US support could make or break Britain's entire war effort. A British blockade naval captain, Stephen King-Hall, noted that "every time a ship from the United States was detained, some injury was done to American trade, some risk was incurred of a challenge from the greatest of neutral states ... [and] to preserve American goodwill was worth a very heavy

⁴⁵ Clifton Daniel, ed., *Chronicle of the 20th Century* (Mount Kisco: Chronicle Publications, 1987), 184–244.

⁴⁶ W. Arnold-Forster, *The Blockade, 1914–1919* (Oxford: Clarendon Press, 1939), 13.

sacrifice.”⁴⁷ Edward Grey, head of the Foreign Office and one of the formative decision-makers behind Britain’s blockade policy, was very much aware of this issue and later recounted:

... blockade of Germany was essential to the victory of the Allies, but the ill-will of the United States meant their certain defeat ... Germany and Austria were self-supporting in the huge supply of munitions. The Allies soon became dependent for an adequate supply on the United States. If we quarreled with the United States we could not get that supply. It was better therefore to carry on the war without blockade, if need be, than to incur a break with the United States ... *The object of diplomacy, therefore, was to secure the maximum of blockade that could be enforced without a rupture with the United States.*⁴⁸

Control over access to coal also remained almost entirely a British affair. The annual report issued in 1918 by the board which controlled shipping and supplies of the British-aligned cause aptly attested to the necessity of Britain’s near monopoly:

... the importation of coal from America, which has been suggested for the American Army in France, and even its importation in the form of double bunkering of vessels, is extremely wasteful. The conveyance of 5,000 tons of coal from America involves the shutting out of 5,000 tons of other stores and (supply tonnage being the limiting factor to the American Military Program) this involves the loss of 1,000 American soldiers in France. As against this, 5,000 tons of coal can be produced in a year by 20 men. Some allowance must, of course, be made for the tonnage required for conveyance of coal from the United Kingdom to France, but the advantage of supplying coal from the United Kingdom remains very great.⁴⁹

Although Britain could blockade coal from Germany, Germany had no means to deny coal to Britain. As German Admiral Scheer later wrote, “England was almost entirely dependent on shipping, and so there was a prospect of our inflicting such material injury upon that

⁴⁷ Ibid., 11.

⁴⁸ A quotation from the memoirs of the WWI head of the Foreign Office, Edward Grey reprinted in Eric W. Osborne, *Britain’s Economic Blockade of Germany, 1914–1919* (London: Frank Cass, 2004), 89–90, emphasis added.

⁴⁹ Salter, *Allied Shipping Control*, 317.

island state that it would be unable to continue the war; four-fifths of the food of the country and all raw materials needed, *excepting coal* and half of the iron ore, had to be imported by sea.⁵⁰ Coal was an element of power that could be depended on, and Germany could not interfere with its supply.

With the United States now onside with the Allies, the final phase of the British blockade, the phase of coordinated denial of food and other supplies to the Central Powers, could proceed relentlessly. The blockade isolated Germany by preventing supplies from getting through while ensuring that German ships could not get out. Thus, it protected Britain from attack and invasion, and by keeping Germany contained it enabled Britain to maintain the overseas trade it needed. Even if Britain had not required the steady influx of raw materials to run its industry or the profits from international commerce to fuel its economy, food alone would have forced Britain to maintain the massive and steady flow of commercial shipping to its shore.

Eventually, Germany succumbed to starvation and deprivation, Kaiser Wilhelm abdicated on 9 November 1918 and the First World War officially ended on 11 November 1918.

The assertions of Rear Admiral Consett's too often overlooked work of 1923, *The Triumph of Unarmed Force*, must be repeated in the hopes that this time they shall be heard:

The problem with which Germany was faced from the very beginning was an economic one: she was not self-supporting, and the supplies on which she depended for feeding, clothing and munitioning its armies, and for supporting its civil population, had to come from oversea.

The four years' Great War was a struggle for the mastery of these supplies. The essence of war, it is generally held, lies in the application of force, and in the acts of unbridled violence to which licence is given. But in 1914–1918 the clash of arms, the destruction of cities and even the passing subjugation of smaller nations were not the sole determining factors of an issue in which one half of the more highly organised nations of the earth sought to impose its will upon the other half. In a war of lesser magnitude and shorter duration, and with the seas open, they might have been. *The real struggle itself was unaccompanied by any single act of violence; yet it was more deadly in its passive relentlessness than the military*

⁵⁰ Scheer, *Germany's High Sea Fleet in the World War*, 225, emphasis added.

*forces and engines of war, on which the whole attention of the world was exclusively riveted.*⁵¹

[...] For more than two years Germany maintained an unequal economic struggle with us: she suffered famine, but she won through. In 1917 she sealed her own doom by declaring war on all merchant vessels in the waters round the British Islands; for by this act trade with the outside world overseas was virtually stopped. British trade with Germany's neutral neighbours, which had continued throughout the war, ceased. America entered the arena and Germany was reduced to starvation: her troops left the fighting line in search of food.

*It is the story of this unseen economic struggle that is here told. The story is as yet an unrecorded chapter in the history of the war. The very existence of the struggle is probably unsuspected by the majority of Englishmen.*⁵²

From its start prior to the war through escalation, through the early war years and finally in the final phase of the blockade, Britain's non-military commercial control over the needed fuel of the day, coal, and world-wide coaling stations formed an important basis for the coordinated system of British powers making up the renowned British blockade, culminating in the Triple Entente's victory against the Central Powers.

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⁵¹ Consett and Daniel, *The Triumph of Unarmed Forces (1914–1918)*, viii, emphasis added.

⁵² Ibid., xi, emphasis added.