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Undermining Technology by Strategy

Resolving the Trade Protection Dilemma of 1917

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Whenever possible, vessels should sail singly, escorted as considered necessary. The system of several ships sailing together in a convoy is not recommended in any area where submarine attack is a possibility.

Admiralty pamphlet, January 1917

A more criminally stupid point of view, a more incredibly erroneous interpretation of naval history, it would be hard to imagine.

John Winton, *Jellicoe* (London: Michael Joseph, 1983), p. 238.

THE INTRODUCTION of convoys for the protection of merchant shipping, which began on a large scale during the middle of 1917, is generally regarded as one of the major turning points of World War I. Relevant to this was the failure of the German submarine campaign to end the war in 1917, or even to improve significantly Germany's position—one of the most important factors in sealing the fate of the Central Powers. The origin of the decision to adopt the convoy system has been a highly controversial topic, due to the conflicting claims of then-Prime Minister David Lloyd George and then-First Sea Lord Admiral John Jellicoe. In his memoirs, Lloyd George makes the unequivocal claim that he forced the convoy system on an unwilling Admiralty, a claim adamantly denied by the contemporary Board of the Admiralty who assert that the convoy system was instituted as soon as it was both needed and possible.¹

From the Dreadnought to Scapa Flow,² Arthur Marder's masterful history of the Royal Navy in the Fisher era, makes clear that the Admiralty had reached the

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decision to adopt at least an experimental convoy system prior to the "intervention" of the Prime Minister. Marder seems to indicate that this decision was long delayed by the absence of an effective naval staff system, as well as training in strategy and tactics for naval officers. In effect, his argument is that the German attack on British shipping came close to causing the collapse of the Allied war effort in 1917 because of the kind of muddleheaded and shortsighted thinking that became synonymous with the general view of pre-1918 military leadership.

Jellicoe, however, the Royal Navy's chief strategist, does not seem to fit this general picture of the "woodenheaded" military leader. He was noted throughout his youth as having an above-average intellect, and his career attests to numerous instances of extraordinary competence, intelligence and courage.³ His management of the Grand Fleet during his tenure as commander in chief, although controversial, demonstrated a perhaps unparalleled combination of tactical ability and understanding of the strategic aim. His voluminous writings point to a thoughtful and literate mind and an almost encyclopedic grasp of both the principles and the details of his various professional positions. What, then, led this evidently intelligent, experienced and well-informed professional, and many others like him, to adhere to this "criminally stupid point of view"? This study intends to answer that question through examining the context of the convoy decision with regard to pre-1914 naval thought; the lessons of the early years of the First World War; the strategic situation during the "crisis" of early 1917; the character, abilities and goals of the central decision makers; and finally, by drawing strategic lessons from the history of the implementation of trade protection measures in the First World War.

The advantages of convoying now seem so glaringly obvious that the actions or inactions of the Admiralty in this regard appear to be inexplicable. We are, however, being wise after the fact. One of several traditional trade protection measures,⁴ convoying had not simply been dropped from the programme of naval measures by an oversight. Neither had it been the victim of shallow investigation by anti-intellectual naval officers intent on eliminating defensive thinking from naval doctrine. The implications of various developments in naval and commercial shipping technology had, for example, been carefully analyzed at the Royal Naval War College by Sir Julian Corbett, probably with influence from two of the war college directors, Rear Admiral R.S. Lowry and Rear Admiral Lewis Bayly.⁵

It was considered that the tremendous volume of British and neutral commercial shipping trade to and from Britain was protection in and of itself. As Corbett wrote, ". . . the measure of a nation's vulnerability through its trade is the percentage of destruction that an enemy can effect." With literally tens of thousands of commercial vessels worldwide, an enemy would have to sink a very large number of ships to make an effective impression on Britain.⁶

Furthermore, given the protection afforded to both neutral and belligerent commercial shipping under international law, as well as technological advances, the practice of commerce warfare had become far more difficult than in the past. To lawfully seize a merchant vessel, a cruiser would have to find, stop and search the vessel, determine if it carried contraband and, if it were deemed a legitimate prize, be prepared with a competent crew to take the vessel to port for prize court proceedings. All belligerent merchantmen who were told to stop, and any neutral vessels that were stopped but not taken as prizes, would advertise by radio the position and identity of the restraining cruiser. Steam-powered cruisers were dependent on frequent refueling, which restricted the distances they could travel from shore bases. Shore bases in overseas colonies could be seized by a more powerful navy, and protected homeland bases would be subject to blockading. These constraints were believed to further reduce the incidence of commerce raiding as a decisive weapon for a weaker power.⁷

Moreover, the advent of steam power for the majority of commercial vessels meant that they were no longer confined to, and therefore no longer concentrated in, known areas dictated by the constraints of prevailing winds. This greater dispersal of commercial ships, which were now enhanced with improved navigation, allowed the modern vessels to sail directly to their destinations without having to make one of a limited number of safe landfalls. Additionally, the increased number of ports in Britain in the twentieth century allowed vessels even greater dispersion. With the introduction of radio, ships at sea could now be warned to remain clear of areas in which a raider was known to be operating. The raider, therefore, would have to steam farther and would find fewer victims, thereby making his operations not only more costly, time-consuming and complicated, but less effective.⁸

The quandary of the power attempting to carry out a *guerre de course* was cogently stated by Corbett: “. . . if he tries to ignore our battlefleets, and devotes himself to operations against trade, he cannot dispute the command. Whatever his strength, he must leave the command to us. He cannot do both systematically, and unless he attacks our trade systematically by sustained strategical operation, he cannot hope to make any real impression.”⁹ Thus, the Royal Navy’s preponderance of power theoretically gave her the ability to contain the bulk of the German High Seas Fleet, thereby preventing the Germans from carrying out a sustained strategical operation powerful enough to adversely affect British trade. The Royal Navy would blockade the High Seas Fleet in its harbours where it was safe and neutralized, and then, on the outbreak of war, proceed to capture German overseas bases and hunt down any German commerce raiders or merchant vessels at sea.¹⁰

It is very important to realize that prior to the war, predictions of the impact that the submarine would have on commerce warfare almost universally discounted the submarine’s capability to even participate in this type of warfare.

Herbert Richmond wrote that the "submarine has the smallest value of any vessel for the direct attack upon trade. She does not carry a crew which is capable of taking charge of a prize, she cannot remove passengers and other persons if she wishes to sink one."¹¹ Corbett felt that no country would "incur the odium of sinking a prize with all hands,"¹² and this seemed to be the submarine's only practical method of operating. The only senior policymaker to hold a divergent view was Admiral Sir John Fisher, who felt that international law would (even should) be cast aside, as necessary, in wartime, and that German submarines would therefore pose a serious threat in a war with Britain. His Cabinet paper on the subject was not circulated, apparently because Prime Minister Herbert H. Asquith "thought it fantastic that any civilized people would resort to such savagely ruthless tactics."¹³

It appears that the assumptions underlying the perceived unsuitability of the submarine for commerce warfare were heavily coloured by the concept that naval powers would adhere to the principles of international maritime law. At first glance this might seem a quaintly idealistic notion for the twentieth century, but the British had good reason to believe that international law would be observed. Responding to military reverses at the hands of the Boers during the "Black Week" of mid-December 1899, the British attempted to prevent supplies from reaching the land-locked Boers by intercepting neutral commerce bound for the Portuguese Mozambique port of Lourenco Marques. These actions so provoked the United States and Germany that Britain abandoned her campaign, fearing that her status in both North America and Europe would be undermined. During the Russo-Japanese War, the British rejected Russian contraband rules and forced the Russians to suspend operations of the "Volunteer Fleet" armed merchant cruisers *Petersburg* and *Smolensk*, rendering the Russian commerce war "absolutely useless to Russia."¹⁴ The possibility that submarines could effectively evade the more powerful navy's command of the sea and make a "sustained strategical operation" against commercial shipping in defiance of international law was just not considered to be within the realm of the possible.

Corbett discussed convoy and decided that it was not only unnecessary, but would divert forces from strategically more profitable efforts. The collection of ships into a convoy forges an important target for enemy operations. If the enemy threatens convoys with increasingly powerful forces, there will be a tendency to commit, or "deflect," larger and larger forces to the direct protection of the convoy, thereby diminishing the number of ships available for strategic operations. Thus, the enemy weakens the forces directly containing him, thereby increasing the likelihood that he will be able to concentrate his forces toward some other strategic end. Corbett felt that in this potential strategic deflection "lay the most serious strategical objection to the convoy system."¹⁵

It is clear for a number of practical and legal reasons that prewar naval strategists believed that a policy of commerce raiding was not likely to be strategically

22 Naval War College Review

decisive. There was a consensus that submarines would be technologically and legally hampered in operations against trade to such an extent as to be rendered useless for the task, and that the real threat to shipping would come from surface raiders detached from the enemy battle fleet or from converted merchant vessels. Trade protection measures were therefore determined to be inherent in the measures that would be taken to destroy or contain the enemy battle fleet and to capture his overseas possessions. Convoys were considered to be unnecessary, and furthermore, they appeared to have serious theoretical disadvantages that transcended any inherent advantage they might hold.

At the outbreak of the First World War the Royal Navy was prepared to protect all aspects of Britain's maritime interests. Technology had rendered the close blockade untenable—as the Royal Navy had learned through fleet exercises between 1901-04—and by 1913 the concept had been given up entirely. The new war plan of 1914 spelled out the “distant blockade” of Germany through blocking the Channel and the northern exits of the North Sea. The British Grand Fleet began carrying out sweeps of the North Sea “in superior force” often enough to “impress upon the enemy that he cannot at any time venture far from his home ports without such serious risk of encountering an overwhelming force that no enterprise is likely to reach its destination.”¹⁶ With this effective military blockade in place, German overseas bases were attacked and German merchant shipping was captured, sunk, or driven into internment in foreign ports. German cruisers did some damage in the early months of the war, but were hunted down and destroyed before they made any real strategic impact. The panic created among ship owners and the general public—designed to be a major effect of the *guerre de course*—was neutralized by the inception of a War Risks Insurance program which guaranteed a generous payment for shipping lost to cruisers.¹⁷ British prewar trade protection doctrine had been validated as “the threat of surface raiders turned out very much as the Admiralty had expected” and as the countermeasures turned out to be equal to the threat.¹⁸

Successful German naval strategy was dependent upon British attempts to use a close blockade for at least part of the time, thereby giving the Germans “abundant opportunities to equalize naval strength.”¹⁹ Jellicoe, at that time Commander in Chief of the Grand Fleet, was well aware that Germany's hopes for dominating Britain at sea lay in their capacity to whittle down the number of British capital ships until German superiority had been realized. British trade protection, and in fact her whole national strategy, was based on the superiority of the Royal Navy, and “it was incumbent upon Jellicoe . . . to shun and guard against any danger that threatened to reduce or destroy the superiority in numbers that was . . . [the Royal Navy's] unromantic but principal asset.”²⁰

The German submarine strategy was to scout for the German High Seas Fleet and to ambush British capital ships. The British learned early in the war that their large ships were vulnerable to submarines after suffering such losses as the

“three Cresseys.”²¹ They also discovered that, when screened by their torpedo boat destroyers, the Grant Fleet ships were relatively safe from attack; conversely, the Germans learned that it was very hazardous to attack ships that were being screened.²²

The German strategy was therefore largely nullified from the first days of the war by the Royal Navy's strategic dispositions of the distant blockade. Their strategy was further impaired by the fact that Jellicoe was mindful of the strategic underpinnings of the British and German strategies, and consistently refused to be “drawn.”²³ The Royal Navy and the public might feel frustration at their inability to destroy the High Seas Fleet in a decisive battle, but they were able to successfully obtain their strategic aim which was to prevent the German Navy from interfering with their trade or military operations. The German strategy was completely stymied, and there was little hope of finding a remedy.

Prior to the war it was assumed that international law would be adhered to under all circumstances—that neutral countries would apply pressure to those who failed to observe it. This was a misconception. The Royal Navy blockade of the North Sea exits was essentially military in origin, but because of public outcry in Britain for measures to punish Germany rapidly, the blockade took on a significant commercial aspect. The original “visit and search” programme rapidly transformed into an undeclared and illegal commercial blockade of Germany and the surrounding neutrals: “By the end of January 1915, the British government was systematically violating every rule of international law which it believed might hinder its campaign against German imports. . . . Lord [earlier Sir Edward] Grey wrote later that his guideline from 1914 to 1916 had been to secure the maximum of blockade that could be enforced without a rupture with the United States.” The United States put very little pressure on Britain to cease her violations, preferring to handle the issue through quiet diplomacy, on a case-by-case basis, when American ships were detained.²⁴

The Germans attempted a submarine blockade in the first unrestricted submarine warfare campaign of February-April 1915. This first attack was not feared by British leaders who were confident that the small number of German submarines was simply incapable of making a significant impression on the huge fleet of Allied and neutral shipping. It was hoped that the German campaign would actually help the Allied cause by drawing the United States into the Allied camp. “The general perception was . . . [to view] the German announcement as an opportunity rather than a threat to the Allies.” Moreover, it would give Britain an excuse for further tightening of the economic sanctions against Germany. On 18 February 1915, “the Government made the final decision to proceed with an all-out campaign of economic strangulation” against Germany.²⁵

As predicted by the British, the campaign was a failure in terms of economic warfare, and it did much to harm relations between the United States and

24 Naval War College Review

Germany. The British believed they were in a strong diplomatic position and rejected an American mediation effort in February 1915 that would have ceased submarine warfare against commerce in return for the termination of Britain's illegal blockade of food for civilians.²⁶ The loss of American lives during attacks without warning on British passenger ships such as the *Lusitania* and the *Arabic*, and the injury of Americans in the attack on the ferry *Sussex*, brought strong protests from the United States. Faced with what amounted to an ultimatum from the United States, the Germans ceased unrestricted operations in waters where the United States was likely to be offended. This further demonstrated the accuracy of prewar observations on the limitations of the *guerre de course*.

The British, however, continued the increased restrictions they had imposed in retaliation for the submarine campaign, and there continued to be no effective protest from Washington. The favoritism thus shown by the United States toward Britain "undermined the entire system of international relations which had dominated Western civilization since the use of the nation-state. The old system had drawn a clear distinction between belligerents and neutrals, and had defined certain rights and duties for each. The American failure to fulfill the obligations of neutrality was a primary factor in the disintegration of this distinction."²⁷ By mid-1915, therefore, "the United States was no longer entitled to the legal status of 'neutral,' " thereby removing one of the last obstacles to the complete rejection of international law that eventually would take place in 1917.²⁸

By the end of 1916, six months after the Battle of Jutland, it was apparent to Jellicoe that the likelihood of meeting the High Seas Fleet and decisively defeating it was improbable. It was also equally apparent that the focus of the war was shifting from the surface to the subsurface. New German long-range submarines were beginning to take a serious toll of British shipping in the Western Approaches because they were able to operate farther west than the British were able to patrol effectively, and because they were beginning to ignore many of the restrictions of international law.²⁹ Jellicoe correctly predicted that the danger would increase over time, and that a major immediate effort against the submarines was an urgent requirement. After hearing these arguments, the Cabinet decided that Jellicoe should be moved to the Admiralty as First Sea Lord to handle the submarine problem.

When Jellicoe took over the post of First Sea Lord he found there were no easy solutions. Virtually the entire fleet of small craft suitable for antisubmarine work on the open ocean was already fully employed. Unlike the situation in World War II, the Royal Navy was not able to assign the majority of its ships to escort duties. The presence of the powerful High Seas Fleet, which could choose its moment to attack, acted as a containing force for a large share of the Royal Navy. The High Seas Fleet was capable of attacking at any time of its own choosing, and with all its forces. It had been determined that the Grand

Fleet needed a minimum force of one hundred destroyers and ten destroyer leaders to screen it in action against the full High Seas Fleet. An engagement with the High Seas Fleet, whereby the Germans would be able to trade destroyer flotillas in exchange for British battleships, would be potentially disastrous. The entire British naval strategy, and therefore its entire strategy, was underpinned by the Grand Fleet's ability to counter German sorties. More than a third of British escort forces were employed in this essential task.

Jellicoe established the Anti-Submarine Division under Admiral Sir Alexander Duff to organize the means to fight the submarine, but he was aware that effective technical countermeasures to the submarine were months away, at least. The only immediately obvious solution was the expansion of the patrol system to all the threatened areas. This, however, would require that a tremendous number of vessels be redeployed from other essential duties or new vessels be built in already backlogged yards. Jellicoe also noted that there was little reason to hope that the increasing supply of various types of patrol craft already ordered would add appreciably to the resources available to directly protect trade or to attack submarines: ". . . experience shows that the completion of new destroyers and other small craft . . . under existing conditions are practically all absorbed in providing escorts for the additional transports and munitions ships which the constant increase in the army in France necessitates."³⁰

There were real problems, even with the nominally defensive patrols and offensive sweeps that were part of the Admiralty antisubmarine effort. Ships that were supposed to be used for patrolling, submarine hunting, and even minesweeping were being used for the direct protection of trade. "Every single destroyer and sloop including P[atrol] boats and 4th Flotilla is hard at it at escort work and I am pestered every day to provide more transports for the East under escort. I have stuck at any more troops going out. We can't provide shipping and must face the fact."³¹ On 30 December 1916, Jellicoe informed Beatty that the only force available for "offensive operations" were ten destroyers at Queenstown, and that these were also largely employed in escort work.³²

Most writers dismiss the pre-convoy countermeasures adopted by the British as ineffective and often fundamentally unsound or, at least, far less efficient than convoying. Unfortunately the Admiralty was unable to determine the effectiveness of the defensive patrol and escort system they had established in the approach routes to the British Isles, but given their success in protecting the cross-Channel traffic, they perceived that such a system would be possible given enough ships to carry it out. And this Channel wartime traffic was huge by any standard: 24,000,000 personnel movements; 3,221,992 sick and wounded evacuated; 2,400,000 animals and 553,829 vehicles transported; 49,000,000 tons of stores (or 90,000 tons/diem in late war years), all transported without loss through what Admiral W.S. Sims of the U.S. Navy called an "immune zone" established

by the Royal Navy.³³ The effectiveness of this patrol and escort system was proved daily.

Early in office as First Sea Lord, Jellicoe began to see the crisis as a general strategic problem in British commitments to the provision and protection of shipping: "The shipping situation is by far the most serious question of the day. I almost fear it is nearly too late to retrieve it. Drastic measures should have been taken months ago to stop unnecessary imports, ration the country and build ships. All is being started now, but as I said it is nearly if not quite too late."³⁴ Jellicoe analysed the British commitments for transport work and concluded that they were heavily overcommitted to France, Russia and Italy as well as British forces overseas.³⁵ His analysis must have closely paralleled that of the Germans who had calculated that they would be able to force Britain out of the war in five months if unrestricted submarine warfare were resumed. The pro-British neutrality of the United States was apparent to the Germans, but they were convinced they could win the war before the United States could effectively join the battle.³⁶

Aware that the Germans were planning to commence their second campaign of unrestricted submarine warfare on 1 February, Jellicoe was not optimistic.³⁷ The existing shipping crisis was being aggravated by Italian and French demands for more resources and there was the prospect of a considerable rise in the rate of shipping losses. By the third week of the unrestricted campaign, Jellicoe was strongly pushing the only immediately effective means he could find: reduction of British transport and escort commitments.

Jellicoe clearly viewed the Western Front as the central theatre. He believed that the blockade was a source of difficulty for the Central powers, and the decisive blow that would defeat the German army would be dealt in the land fighting. With this in mind, and apparently influenced by similar pronouncements from senior army sources, he regarded the peripheral operations as wasteful "sideshowes." He informed Beatty that he believed the blockade was useful, but that it would not be decisive, and that the only decisive theatre was the Western Front where the German army would have to be defeated.³⁸ With this in mind he called for "an immediate reconsideration of the general strategy of the Allies" in the shape of "a radical change in the policy with regard to the overseas expeditionary force." He felt that the only practicable method was to reduce British "commitments for the supply of the various expeditions in Salonika, Egypt, East Africa and Mesopotamia."³⁹ His recommendations can be interpreted as an attempt to maintain the central strategic aim of the war within the seemingly unalterable limited means to carry out the naval war. A community of strategic thought that had unfolded between the heads of the army and navy was that defeating the German army on the Western Front was the central military aim. Strangely, Jellicoe does not seem to have gained support in the War Cabinet from the army. The army had lost no troops and little materiel

in the cross-Channel shuttle, and therefore did not directly feel the weight of the submarine blockade. They were content to allow Jellicoe to champion a cause which was potentially unpopular with the government.

Jellicoe's remedy for the strategic threat which he determined might soon compromise Britain's ability to carry on fighting for more than a few months was "repeatedly and finally almost desperately" urged by him "at those meetings of the War Cabinet which he was invited to attend." Jellicoe "lacked the oratorical and debating skill[s] to match the practised speakers among whom he sat," and the "sideshows" at Salonika, Mesopotamia and East Africa were destined to remain in place for Jellicoe's tenure.⁴⁰ Ultimately, the government did not alter the strategic dispositions of the army, and the navy was forced to adopt trade protection measures at the expense of its other duties.

As the German submarine campaign began to take full effect, pressure on the Admiralty was increased to do something about the sinkings, and among the more popular measures suggested was convoying. The situation had changed dramatically from that attending the first submarine campaign. It was apparent that the Germans were confident that Britain would rapidly withdraw from the war. It was equally apparent that the Germans believed the United States would *not* enter the war and, therefore, the last "prop" supporting international law had collapsed. The size of the German submarine fleet had greatly increased, and the British command of the sea was easily evaded by the submarines: "So far as the protection of trade was concerned, the effect therefore of the submarine campaign had been to remove the barrier established by the Grand Fleet and to transfer operations to the focal areas and approach routes."⁴¹ It appeared that the Germans would be able to attempt a sustained strategic operation against trade, and all measures that could be used to fight this, including convoy, were under consideration at the Admiralty.

Convoying has one central characteristic around which its advantages and disadvantages revolve: concentration of shipping. One inherent advantage in concentration is the increased potential for the convoy to evade detection at the tactical level: the submarine searching for prey patrols more or less at random, hoping to pass within the circle that allows visibility of a potential victim. Ships that are packed densely together in convoy have the effect of overlapping their circles of visibility, thereby reducing the total area of the ocean in which a submarine can sight a ship. It was widely surmised, however, that this benefit to the convoys was largely or completely nullified under modern conditions which made it difficult to gather and sail secretly, especially when homeward-bound convoys would have to assemble in or near neutral territories. Knowing the departure point and sailing time, the destination and the approximate speed of the convoy, would enable an enemy to deduce the rough position of the convoy at any time. The large pall of smoke created by a group of coal-burning ships in convoy would allow a raider positioned near the convoy's projected route to

sight the smoke at a considerable distance. This cannot be dismissed; it was on this principle that the World War II "wolf pack" system operated and it was this principle that the Germans fortunately failed to appreciate and to act on in the First World War.

An inescapable fact of convoying is that no matter how well-routed or veiled in secrecy the convoy might be, there remains the possibility that it will be sighted and attacked by a patrolling enemy, and therefore must be protected by an escorting force. The convoy without escort may be more difficult to find, but if found, it is a vulnerable target. Richmond noted that "the principle governing the strength of the escort is simple to define though not always simple to apply. At all stages of the voyage the escort must be strong enough, and in suitable character, to meet whatever attack it is reasonable to expect."⁴² In the context of 1917, this meant that convoys on the open ocean had to be protected from attack by the surface raiders that periodically escaped the blockade, and they had to have protection from submarine attack as they came within about 300-400 miles of the British Isles. Convoys in the North Sea were also liable to attack from German squadrons, right up to the full High Seas Fleet.

The scale of protection required to effectively screen ships from submarines was unknown, but a ratio of six destroyers to eight-twelve merchantmen sailing in a tight formation was thought reasonable, although some authorities believed that as many as two or three destroyers per ship would be needed for truly effective protection. To screen convoys from surface raiders, who were generally armed merchantmen, each convoy would require a cruiser. At any rate, reasonable contemporary opinion held that considerable forces would be required to institute a system of convoys. As we have seen, such forces were already spread very thinly by the beginning of the submarine campaign.

With all resources fully employed, and fearful that attempting new measures might worsen the situation, Jellicoe found himself in a difficult position. The introduction of convoy "would mean immediately cutting down the tonnage 15 to 20 percent because of the time which would be consumed in assembling the ships and awaiting escorts and in the slower average speed which they could make."⁴³ This represented a serious reduction of imports in an already overtaxed system and undoubtedly caused considerable trepidation: "When tonnage is already short any proposal which must reduce its efficiency has to be carefully examined."⁴⁴ Lloyd George pointed out that the sailing delays and routing changes imposed by the Admiralty's defensive scheme had an even greater cost: "It was calculated that during the end of 1916 and the early months of 1917, the Germans had established an efficient outward blockade . . . equivalent to 40 percent of the days in a year."⁴⁵ This information was not, however, available to the Admiralty at the time.

The Admiralty was also concerned that a reduction in patrols would make non-convoyed shipping even more vulnerable. It is generally held that such

patrolling is inefficient, or even based on a fallacy, but as we have seen, the Admiralty was aware that with enough ships, intensive patrolling did work. Therefore, they reasoned, a reduced number of ships patrolling would raise the risks to unconvoyed ships.

As for the convoys, the Admiralty also feared they would present large and vulnerable targets for torpedo-firing submarines. It was thought that the submarine could "brown" a convoy—fire his torpedoes at long range, with little risk, and still have a reasonable chance of striking one or more of the ships in the convoy. This turned out to be an unfounded fear, as few convoys were attacked by German submarines. This does not suggest that the Admiralty's concern was unreasonable. The single recorded wolf-pack-type concentration of submarines against convoys in May 1918 scored at least one successful browning of a convoy (the sinking of the *Scholar* in convoy HG 75 by U 55), and browning was probably responsible for many of the losses to convoys.⁴⁶ The German failure to locate convoys and concentrate submarines against them limited the opportunities to test browning.

The fear that the merchant crews would not be capable of keeping their ships in the close formation necessary for effective antisubmarine screening impeded the establishment of the convoy system. This was not due to the navy's lack of confidence in the capabilities of their civil counterparts, but rather to the firm opinion held by the majority of the civilian masters themselves. A meeting of ten merchant masters that was called by the Admiralty in February produced unanimous disapproval.⁴⁷ Admiral Sims quoted Jellicoe: "The merchantmen themselves are the chief obstacle to the convoy."⁴⁸ Jellicoe proposed a convoy of eight ships in two columns with 500 yards between ships, escorted by warships. The merchantmen replied that it was "absolutely impossible. . . . Two might do it but three would be too many." Sims personally canvassed other merchant masters who echoed this opinion. "I do not believe," he wrote, "that British naval officers came in contact with a single merchant master who favoured convoy at that time." The masters' attitude "simply resulted from their sincere conviction that the convoy systems would entail greater shipping losses than were then being inflicted by the German submarines." Fortunately, "the attitude of the merchant marine had not entirely eliminated the convoy from consideration. At the time I arrived the proposal was still being discussed; the rate at which the Germans were striking merchantmen made this inevitable."⁴⁹

Clearly, the Admiralty was primarily concerned with such practical considerations and was not merely rationalizing their misconceptions or doctrinal fetishes. This is made markedly apparent by the fact that the Admiralty had instituted convoys in various forms well prior to the height of the crisis, and even before Lloyd George was the Prime Minister. The trade between Britain and the Netherlands had been sailing under escort of twelve Harwich Force destroyers on a schedule of every four days since 1915, although these convoys were much

more loosely organized than would be the requirement for an effective ocean convoy. France's coal trade had been brought under a "protected sailing" system in March 1917, and April brought protected sailings to the Scandinavian trade. These were actually weakly protected, scattered convoys on brief trips in areas which were in the immediate vicinity of substantial forces such as the Harwich patrol, the Channel protected zone, or the Scapa Flow Grand Fleet flotillas. The coal trade was mostly escorted by weak trawlers, and the "protection afforded was therefore more apparent than real, but even so the results had been very good in reducing the losses by submarine attack."⁵⁰

Without an effective shipping control system, there was no information available on the exact number of trade vessels calling on various ports in Britain. The Admiralty had compared the total number of calls of all ships in all ports, to the number of ships sunk, as an instrument for minimizing the serious impact of shipping losses on overseas trade. No one at the Admiralty attempted to determine the actual size of the proposed shipping trade to be convoyed—it simply was assumed to be a huge number. This was not an example of being deceived by one's own propaganda, but simply ignorance of the problem's magnitude. Much has been made of this ignorance by Lloyd George⁵¹ and others, but it seems likely that the statistics were collated only as a result of the investigation of trade protection by Admiral Duff's new Anti-Submarine Division at the Admiralty.

The accumulation of shipping statistics was hampered by the secretive character of British shipping authorities⁵² and by the War Risks Insurance system used so effectively by the government to prevent a panic in the face of cruiser warfare. The War Risks Insurance scheme achieved its aim to keep shipping running while under the threat of commerce raiders, and later the submarine threat, but it also removed the need to collect actuarial information on the relative safety of various routes and methods of defence. There was, therefore, no system to evaluate the relative effectiveness of the various means of defence against the submarine attacks and to disseminate this information to ship owners and masters—or the Admiralty either.

The government's attempt to control all shipping resulted in the establishment of a registry of shipping at the Ministry of Shipping. The Ministry of Shipping was only beginning to fully operate in April 1917, but its registry, which duplicated the peacetime Lloyd's registry for all shipping that entered or left British ports, brought to light vital information. It was discovered that the volume of shipping to be protected in the approaches to Britain was of manageable size. Commander Reginald Henderson, the officer responsible for organizing the coal convoys, became aware of this information and reported it to his superior, Admiral Duff.⁵³

Admiral Duff informed Jellicoe not later than 25 April that a plan for convoying homeward-bound Atlantic trade was being prepared and Jellicoe

accepted an outline plan on 26 April. Duff's plan took into account the new figures from the Shipping Controller's representative to the Admiralty, Norman Leslie, and expressed the hope that the convoy system would provide at least some temporary relief until such time when the Germans were able to develop a countermeasure.⁵⁴ Commander Henderson was more specific: "[I]f convoys could be put into being forthwith, it would probably take Germany three months to discover the best methods of locating and attacking, during which period we should have further time for thought and for construction."⁵⁵

On 27 April, Jellicoe made another impassioned appeal for a reduction in the lines of communication that the navy was expected to protect, this time emphasizing that it was necessary if the number of vessels required to institute the convoy system was to be available.⁵⁶ He was clearly attempting to win his case by impressing those around him with the seriousness of the shipping situation. This tactic was highly successful with the Americans who tailored their contribution to Jellicoe's requirements despite a strong anticonvoy belief in the U.S. Navy, even after the convoy system had been operating successfully for some time.⁵⁷ Jellicoe wrote Beatty: "I hope to get a good deal out of U.S.A. Sims [Rear Admiral] has arrived here. . . . I am telling him the situation frankly as it is necessary to let the U.S.A. realize that we want help *at once*, in small craft and shipping. I hope to get a big lot of destroyers over here very soon."⁵⁸

The Admiralty decided that they would attempt convoying when it became apparent that it was possible, and when even serious losses from convoys (i.e., three from each) would be no worse than the losses currently mounting for April. The French coal trade and Scandinavian convoys had demonstrated that effective escort forces could be minimal in size. U.S. entry into the war eliminated the last major overseas neutral supplying Germany, promising a reduction of forces needed to enforce the blockade. The release of the armed merchantmen from the Northern Patrol provided both ocean escorts for convoys against surface raiders, and additional merchant tonnage as well, but the U.S. Navy had something of even greater importance: "There was, however, still one really serious impediment to adopting this convoy system and that was that the number of destroyers available was insufficient. I do not wish to say that the convoy would not have been established had we not sent destroyers for that purpose, yet I do not see how otherwise it could have been established in any complete and systematic way at such an early date. . . . The Allied chiefs now realized, for the first time, that the problem was not an insoluble one."⁵⁹

An experimental convoy from Gibraltar arrived in Britain on 20 May, dispelling any lingering doubts that it could be done. The following day a general system of convoying was approved for implementation as escort vessels became available. The implementation was a gradual process that did not turn the shipping loss rate around until the end of the summer. There was no "immediate and obvious transformation. The situation remained critical until after August

32 Naval War College Review

1917, and the problem of finding sufficient escort vessels continued well into the following year, despite the building programmes that were pressed forward in both Britain and the United States."⁶⁰ Nonetheless, shipping losses declined steadily for the rest of the war. The solution to the submarine attack on trade had been found.

The strategic situation in 1917 was in delicate balance. Lack of planning and organization to mobilize for a total war had left Britain seriously overcommitted in manpower, resources, shipping, skilled labour, finances, and agriculture. A lack of consensus or even continuity in strategy and war aims had allowed her to become involved in both a continental war and a form of her traditional maritime strategy of peripheral attacks. A fear of the hardships, such as rationing and shortages that are associated with an extended conflict, led to continued "short-war thinking," even as a "long war" evolved. Lloyd George had inherited this chaotic situation, but was optimistic and determined to carry on the war to a successful conclusion. Jellicoe's dire predictions did not serve him well with Lloyd George and the Cabinet. Jellicoe was unable to conceal his impatience with the debates in the War Cabinet which, when combined with his dire forecasts, "contributed to prejudice ministers against him."⁶¹

Clark Reynolds implies that Jellicoe was dismissed because he was "never very keen on convoy," but this is simply unfounded.⁶² Jellicoe criticized the amateurs who were unaware of the complexities and commitments of the naval forces and who thought they had easy solutions. He was not in the least shy in pointing out the problems inherent in the adoption of the convoy system—but surely this was to be his responsibility. Jellicoe's failures can be attributed to his refusal to adapt to the style of Lloyd George, and to his inability to win points in the Cabinet. (He sensed that he had incurred the dislike of the Prime Minister as early as June, and correctly guessed that there was a move afoot to have him replaced because of his "pessimistic" predictions.)⁶³ His lack of political ability and the personal dislike of the Prime Minister, combined with the public outcry over a lack of naval offensives, are far more likely causes of his eventual dismissal than lingering doubts about convoying.⁶⁴

Marder's thesis that the Admiralty had a poor staff organization, dominated by officers "wedded" to outdated and ineffective principles or simply uneducated in strategy and tactics is a reasonable generalization, but it may not be relevant to the analysis of the submarine crisis. It was, after all, the Admiralty staff that conceived of, approved, tested, and implemented the modern antisubmarine convoy system in the face of a major naval and political crisis during the first four months of the first effective commercial blockade ever conducted by submarines. They did this with the additional handicaps of an unorganized and overcommitted economy and war effort. It is difficult to envision areas where a better educated or more organized staff would have substantially improved the response, except in the area of collection and analysis of operational statistics.

Given the crisis of overcommitment in British civil and military resources generally, the reallocation of resources to convoying was quite dramatic.

The German assumption that U.S. entry into the war would be too late, and Britain would be defeated, or at least compelled to leave the war in five or six months, was a grave strategic miscalculation. The loss of British and neutral carrying power in 1917 to the submarines was more than offset by the rationalization of import regulations and the increased use of British and French domestic resources instead of imported goods.⁶⁵ As Jellicoe was desperately trying to point out to his colleagues, there was a tremendous reserve of shipping and naval forces supplying and protecting Britain's major overseas operations in Salonika, Mesopotamia and East Africa. These three operations used 333 merchant ships, in aggregate over one and a half million tons of shipping. Moreover, these transports, that were necessarily escorted for most or all of their journeys because of their military value, represented a large reserve of escort vessels.⁶⁶ This shipping alone could have compensated for the losses of the "crisis" period of 1917. It was estimated in early 1917 that rationalization and central control of British railways could greatly facilitate ship loading and unloading with an "estimated saving in tonnage of 4,000,000 or 5,000,000 tons per annum."⁶⁷ These figures demonstrate that the British war economy had not yet been effectively mobilized and that the Germans had badly underestimated Britain's capacity for expansion.

The Admiralty's handling of the convoy question was, like other pre-war and early-war policies on naval strategy, "neither stupid nor careless. Their decisions were thoroughly considered, based on the best professional advice available, and justified by what seemed at the time excellent reasons."⁶⁸ Jellicoe wrote in response to Lloyd George's *War Memoirs*: "Wisdom distilled from events which were unforeseeable should find expression not in criticisms of those who did their duty to the best of their ability, but in the taking of wise precautions for the future."⁶⁹

With Jellicoe's exhortation in mind, there are useful generalizations that can be drawn from the history of the convoy decision. First, there seems to be no form of technology that cannot be countered. Corbett failed to heed his own warning that there "is no part of strategy where historical deduction is more difficult or more liable to error" than that related to the material aspects of war.⁷⁰ Within five years after publication of his book, weaker naval powers were able to attempt sustained strategical operations against trade with diesel-powered submarines with ranges that put them much closer to the old sailing cruisers than to their surface contemporaries, and that could pass, unimpeded, through a military blockade. Perhaps even more important for strategic thinkers than the undermining of strategies by new technology is the opposite process. The War Risks Insurance scheme, convoying, the altered strategic distribution of forces advocated by Jellicoe, the rationalization of the importation system from import

controls to railway organization—all are examples of strategic or doctrinal changes to the developing war of commerce destruction.

A second observation is that the *guerre de course* is only one form of commerce warfare. The second German submarine campaign, which formed an effective form of blockade until the introduction of convoying, was not reliant upon the psychological impact of attack, but on the material effect of the destruction of Britain's capacity to transport the material necessary for her war effort. The British blockade was, on the other hand, doubly effective in that it not only prevented the flow of goods to Germany, but diverted many of those goods to the Allies. This war of shipping diversion was of "crucial importance in allowing Britain to continue fighting."⁷¹ Commerce warfare in general should seek to disrupt the import system of the enemy, while concurrently enhancing one's own position if possible.

It would be a mistake to conclude that a lesson learned from the First World War is that convoying is an inherently good general strategy. First, convoying is not a strategy. It is a tactical formation within a system of naval control of shipping, a formation with qualities that can be either good or bad, depending on the situation. Second, the success of the convoys in WW I must in part be ascribed to the fact that the Germans consistently neglected to attack on the tactical level, or to disrupt the British effort at the strategic level by using the powerful German surface forces to occupy the British surface forces that were so critical to the success of the convoy system. Finally, many of the Admiralty's concerns over the implementation of convoys were probably well-grounded. Convoying should not, therefore, be adopted reflexively as *the* method of controlling and protecting commerce without a critical examination of the potential costs and benefits at all levels, from the tactical to the grand-strategic. Measures to control and protect import systems should always be taken, but the form of these measures is not an iron law.

It is evident that international law provides a weak foundation for strategy. The effectiveness of international law seems to rely entirely on influential neutrals who are willing to referee. The United States' failure to enforce her neutral rights in the face of British violations gradually led to a lack of constraints on the belligerents. With the modern tendency toward coalition warfare, there is the real possibility that in future major wars there will not be a neutral powerful enough to constrain belligerents within the limits of international law. Like technology, the limits of acceptable behaviour can change through evolution and through revolution; and the impact of these constraints on strategy must be continually reevaluated.

The most important lesson may be that practical application of naval strategies and tactics are deeply influenced by the means available. Although the necessary measures that were carefully analysed and prepared for the protection of trade did work as expected during the first two years of the First World War, abruptly,

they became useless when doctrine and submarine technology changed. At the same time, the general strategies of the two battle fleets remained remarkably stable, captured in a sense by the limits of their doctrine and technology which could change only slowly. The trade protection dilemma of 1917 should sound a warning to naval strategists of today: Factors such as increasingly interdependent world production systems, the rise of trucking and the consequent decline of railways, the growth in merchant ship size, to name but a few, make the control and protection of import systems more difficult, more disruptive, and more necessary. Satellite surveillance and long-range acoustic and electromagnetic detection methods, combined with the tremendous speed and endurance of modern submarines, make the localization and attack of convoys much more likely and their direct defence much more costly of limited naval resources. There is every possibility that a future Jellicoe will be faced with much the same strategic dilemma that the First Sea Lord struggled to resolve in 1917.

Notes

1. The opposing ideas in this debate are best found in the works of the two principals: David Lloyd George, *War Memoirs*, (London: Ivor Nicholson & Watson, 1934) v. 3; and John Jellicoe, *The Submarine Peril* (Toronto: Cassell & Co., 1934).
2. J.A. Marder, *From the Dreadnought to Scapa Flow*, (London: Oxford Univ. Press, 1969) v. 1-5.
3. For an entertaining popular biography of Jellicoe see: John Winton, *Jellicoe*. Winton's interpretations of naval strategy and tactics should, however, be approached with caution. Another useful biography is: Reginald Bacon, *The Life of John Rushworth, Earl Jellicoe* (London: Cassell, 1936).
4. Squadron warfare to destroy the enemy's ability to attack shipping, focal point protection and patrolling were also common, even more common, means of trade protection.
5. Julian S. Corbett, *Some Principles of Maritime Strategy*, with introduction and notes by Eric J. Grove (Annapolis: Naval Institute Press, 1988), pp. 305-306. Originally published by Longmans, Green and Co., 1911.
6. Corbett, pp. 275-276.
7. The assumption that only a weaker power will carry out a *guerre de course* is derived from the idea that the stronger power will prevent commerce by command of the sea and will have no need to take special strategic measures to hunt down commercial shipping (Corbett, pp. 261-262). The *guerre de course* is a system of making an impact on a stronger foe while still avoiding combat. Bernard Semmel provides an excellent description of the *guerre de course* theory in *Liberalism and Naval Strategy* (Boston: Allen and Unwin, 1986), pp. 89-92. The most influential rebuttal to the *guerre de course* was, of course, A.T. Mahan's *The Influence of Sea Power upon History* (Boston: Little Brown, 1980).
8. Corbett, pp. 268-271.
9. *Ibid.*, pp. 274-275.
10. These concepts were reflected in Admiralty policy as it entered the war. See Marder, v. 1, pp. 365-366.
11. *Ibid.*, v. 1, p. 364.
12. Corbett, p. 269.
13. Marder, v. 1, p. 363.
14. The influence of these experiences on British strategy in relation to international law can be found in J.W. Coogan's *The End of Neutrality* (London: Cornell Univ. Press, 1981), ch. 2, and the Boer War incidents in particular on pp. 117-118. Britain's management of neutral rights during the Russo-Japanese War is detailed by Keith Neilson in " 'A Dangerous Game of American Poker': Britain and the Russo-Japanese War," *The Journal of Strategic Studies*, March 1989, pp. 63-87. The quote is from the latter work, citing Sir George Clarke, secretary to the Committee on Imperial Defence.
15. Corbett, p. 266.
16. Marder, v. 1, p. 373.
17. The development and effects of the insurance program are described in Martin Doughty's *Merchant Shipping and War* (London: Royal Historical Society, 1982), ch. 5.

36 Naval War College Review

18. Marder, v. 1, p. 367.
19. *Ibid.*, p. 373. See also, Paul Kennedy, "The Development of German Naval Operations Plans Against England, 1896-1914," *The English Historical Review*, v. LXXXIX, 1975, pp. 48-76.
20. A.T. Patterson, ed., *The Jellicoe Papers* (2 vols.) (London: Spottiswoode, Ballantyne & Co., 1966), v. 1, p. 44.
21. An effective and entertaining naval history of the opening of the First World War can be found in James Goldrick's *The King's Ships Were at Sea* (Annapolis: Naval Institute Press, 1984). Chapter 6 describes the debut of the submarine.
22. W.S. Sims, *The Victory at Sea* (New York: Doubleday, Page and Co., 1920), pp. 101-102.
23. Jellicoe to Churchill, 30 October 1914, in: A.T. Patterson, v. 1, hereafter cited as *Jellicoe Papers*.
24. J.W. Coogan, *The End of Neutrality* (London: Cornell Univ. Press, 1981), pp. 214-215.
25. *Ibid.*, pp. 222-223.
26. *Ibid.*, pp. 228-229.
27. *Ibid.*, pp. 254-255.
28. *Ibid.*, p. 235.
29. Henry Newboldt, *Naval Operations* (London: Longmans, Green and Co., 1931), v. 4, p. 242.
30. Paper drawn up by Jellicoe for the War Cabinet, 21 February 1917, *Jellicoe Papers*, v. 2.
31. Jellicoe to Beatty, 23 December 1916, *Jellicoe Papers*, v. 2.
32. Jellicoe to Beatty, 30 December 1916, *Jellicoe Papers*, v. 2.
33. Figures are from Lloyd George, p. 1207. Admiral Sims used the phrase "immune zone." See Sims, p. 111.
34. Jellicoe to Beatty, 13 December 1916, *Jellicoe Papers*, v. 2.
35. Jellicoe to Beatty, 30 December 1916, *Jellicoe Papers*, v. 2.
36. Newboldt, p. 239.
37. The British Directorate of Naval Intelligence decryption service (Room 40) had decrypted the famous Zimmernan Telegram, which also contained the news that unrestricted submarine warfare would commence on 1 February 1917. See Hugh Hoy, *40 O.B.* (London: Hutchison and Co., 1932), pp. 38-42. Jellicoe was obviously aware of this and disclosed this news, but not the source, to Beatty. See Jellicoe to Beatty, 25 January 1917, *Jellicoe Papers*, v. 2.
38. Jellicoe to Beatty, 4 February 1917, *Jellicoe Papers*, v. 2.
39. First Lord to War Cabinet (drawn up by Jellicoe), 21 February 1917, *Jellicoe Papers*, v. 2.
40. Patterson, v. 2, p. 116.
41. Admiral Jellicoe, *The Crisis of the Naval War* (London: Cassell and Co. Ltd., 1920), p. 171.
42. H.W. Richmond, *The Navy* (London: William Hodge & Co. Ltd., 1937), p. 91.
43. Sims, p. 107.
44. *Ibid.*, p. 104.
45. Lloyd George, p. 1244.
46. Newboldt, pp. 277-284; Lloyd George, p. 1184.
47. Report of a meeting held at the Admiralty on 23 February 1917, *Jellicoe Papers*, v. 2.
48. Sims, p. 106.
49. *Ibid.*, pp. 107-108.
50. *Ibid.*, p. 110.
51. Lloyd George, pp. 1145-1147.
52. Doughty, p. 6.
53. Marder, pp. 150-151.
54. Jellicoe to Admiral Hamilton, 25 April 1917, and Duff to Jellicoe, 26 April 1917, *Jellicoe Papers*, v. 2.
55. Lloyd George, p. 1165.
56. Jellicoe to Carson, 27 April 1917, *Jellicoe Papers*, v. 2.
57. Jellicoe to Browning (Commander in Chief NA&WI), 7 July 1917, *Jellicoe Papers*, v. 2.
58. Jellicoe to Beatty, 12 April 1917, *Jellicoe Papers*, v. 2.
59. Sims, pp. 113-116.
60. Patterson, v. 2, p. 115.
61. *Ibid.*, p. 116.
62. Clark Reynolds, *Command of the Sea* (Malabar, Fla.: Robert E. Krieger, 1985), p. 468.
63. Jellicoe to Beatty, 30 June 1917, *Jellicoe Papers*, v. 2; Lord Hankey recorded that Jellicoe's bleak predictions in June had caused "great irritation" and that by 3 July Lloyd George was "hot for getting rid of Jellicoe." See Lord (earlier Sir Maurice) Hankey, *The Supreme Command 1914-1918* (London: Allen and Unwin, 1961), v. 2, pp. 654-655.
64. Patterson, v. 2, pp. 116-122.
65. Lloyd George, pp. 1247-1268.

66. First Lord to War Cabinet (drawn up by Jellicoe), 21 February 1917, *Jellicoe Papers*, v. 2.
67. Lloyd George, p. 1242.
68. Coogan, p. 239.
69. Jellicoe, *The Submarine Peril*, p. xi.
70. Corbett, p. 266.
71. Donald French, *British Strategy and War Aims 1914-1916* (London: Allen and Unwin, 1986), p. 27.

Ψ

War in all its aspects offers a continual choice of difficulties and advantages. It is in reconciliation effected among these as far as possible, in allowance of due predominance to the most important, in disregard of difficulties where practicable, that the art of the commander consists. The one most demoralizing attitude is that which demands exemption from risks, or is daunted unduly by them.

Naval Strategy
A. T. Mahan
Little, Brown (1918) p. 143