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THESIS

NAVAL STRATEGY

A STUDY OF THE PRINCIPLES AND ELEMENTS OF

*THE NAVAL STRATEGY OF GREAT BRITAIN*  
*to be filled in*  
*IN THE WORLD WAR 1914-1918.*

AND THEIR APPLICATION IN THE PRESENT DAY

Submitted by

*Lieut. Comdr. D. P. Moon.*

Room No. *W-31.*

DEPARTMENT OF INTELLIGENCE

**Naval War College**

**Newport, R.I.**

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NAVAL STRATEGY  
 A Study of the Principles and Elements of  
 THE NAVAL STRATEGY OF GREAT BRITAIN IN THE WORLD WAR 1914-1918  
 And Their Application in the Present Day.

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CHART ILLUSTRATING  
THE SYSTEM OF COMMERCE PROTECTION  
IN THE  
**ATLANTIC & INDIAN OCEANS.**








Prepared in the Historical Section of the Committee of Imperial Defence

15° 14° 13° 12° 11° 10° 9° 8° 7° 6° 5° 4° 3° 2° Meridian of Greenwich 2° 3° 4° 5° 6° 7° 8° 9° 10° 11° 12°

# HOME WATERS.

## NOTE

-  Within limits of several fishing grounds as laid down by Admiralty 1904-1905.
-  Area prohibited to fishermen owing to British warfields.
-  Area prohibited to fishermen owing to enemy warfields.
-  Great Fleet Cruise Area as established in September 1914.
-  Limits of French fishing zone.



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With the French Fleet destroyed at Trafalgar and Napoleon under guard on St. Helena, England, the Mistress of the Seas, settled down for nearly one hundred years during which her sea supremacy was unthreatened. It was a period of unrivalled prosperity. All the nations of the world paid tribute to her for services rendered. Her cruisers were in every sea protecting and furthering her interests. Both they and her far flung merchant marine found protection and replenishment for their wants in a system of bases that studded the oceans. Not unmindful that her greatness was due to the sea, and thankful for its bounties, she wooed a further continuance of such favors by the maintenance of the world preëminent navy upon the waters of Father Neptune.

The superiority of the Navy was not due to chance but to a reasoned study of her needs. In 1882, a royal commission sat under the presidency of Lord Carnarvon and laid down this national policy,

"The Royal Navy is not maintained for the purpose of affording direct local protection to seaports and harbors, but for the object of blockading the ports of the enemy, of destroying his trade, attacking his possessions, dealing with his ships at sea, and we may add, of preventing an attack in great force against any special place."<sup>1</sup>

Based upon this mandate prescribing the duties of the Navy, the conclusion was reached that England's fleet should be equal to the two fleets next in strength combined, regardless of flag,

<sup>1</sup> C5091, 1887, Report of Colonial Conference, Appendix.

with a margin for contingencies. Not only was the conclusion reached but such a fleet was built. The sea-girt little island then rested in security upon the sure shield of her Navy, which was to finally throw back the strongest assault that it was called upon to meet in the many years of its existence.

That such a Navy was built was due to a singular trait of English statesmen who, regardless of party, have consistently believed and followed the policy that strategy is continuous both in peace and in war. It is largely to this trait that Britain's greatness is due. Her innumerable secure naval bases dotting the globe further testify to the far sightedness of her statesmen. It is but recently that the United States measured the potency of their peace time strategy. At the Washington Conference they won a bloodless victory many times greater than Nelson ever conceived. Truly they served their country well.

It was due to such statesmanship that the British Empire achieved an apparently endless expansion of trade. Then after a long period of peace and tranquility there came an ominous note. Germany, a lusty new-comer in international commerce, aspiring to England's prosperity and power issued a challenge contained in her Fleet Law of 1900.

"In order to protect German trade and commerce under existing conditions," declared the preface of this statute, "only one thing will suffice, namely, Germany must possess a battle fleet of such a strength that, even for the most powerful naval adversary, a war would involve such risks as to make that Power's supremacy doubtful."

With the re-percussions of this decision by Germany and the milestones traversed on the way to that fearful Armageddon, the World War, we shall not deal except in so far as they affected the peace time strategy of the British Navy.

Suffice it to say, the peace time strategy of preparation was stirred from its lethargy. It became suddenly objective in nature. A directness was imparted that it had previously lacked, until aimed at the probabilities of conflict with one principal nation, Germany.

The period of preparation strategy which thus began with the German Fleet Law of 1900 and continued until the out break of war was an epic in the annals of the British Navy. During much of this time the Navy was divided into two hostile groups. Lord Fisher, long a storm center, was the leader of the reform group striving to prepare the Navy for war. A fierce conflict was fought. In the end Lord Fisher emerged triumphant from the fray with the scalps of the opposition hanging from his belt. His measures were adopted and those who opposed him or did not co-operate were relieved from their commands or retired.

To recount the measures introduced by Lord Fisher is to recount most of the preparation strategy of the British Navy for war with Germany. The most important of them were:

1. Eighty-eight per cent of the Navy was concentrated in home waters and organized for battle. This was in contrast to the preceding system which scattered the Navy in small units all over the world.

2. Rapid mobilization was provided for through a nucleus crew system. Ships not in full commission had a nucleus crew of experts on board familiar with the ship and the rest of the crew were detailed from reserves kept in constant readiness. The mobilization of the whole fleet could be affected in a few hours.

3. The dreadnought all-big-gun type of battleships was introduced.

There are reasons to believe that this last was unwise strategy. England's already built and previously far superior Navy was of little value after Germany had copied the new type. The old vessels in both Navies were no match against the new dreadnought. For this reason, Germany lost no time in copying them. This gave her almost an even start in striving for parity in



number of vessels of the new design.

4. The all-big-gun type of battle-cruiser was introduced.

There is reason to believe that the origination of the battle-cruisers was of more benefit to Germany than to England. Except at the Falklands but little benefit was derived by England from this type. Even there, a superior force of light cruisers would have handled the enemy just as effectively. At Jutland nearly all the English losses were experienced through the destruction of her battle-cruisers. Furthermore if Germany had not had the English battle-cruisers to copy it is probable that she would not have been able to make the war time bombardments of the east coast cities of England.

5. Inefficient fighting vessels were eliminated from the active list of the Navy and sold or scrapped.

The wisdom of this move is not entirely obvious since any type of vessel which would float was pressed into service during the war.

6. The Naval War College and the Naval War Staff were instituted and developed.

7. The Royal Fleet Reserve composed of former active service ratings was introduced.

8. The Royal Naval Volunteer Reserve was established.

9. A service of mines and of mine laying vessels was developed.

10. A service of vessels for defensive mine sweeping in harbors and on the open sea was introduced.

11. A complete organization was made of auxiliary vessels for the use of the fleets in war.

12. Provision of repair ships, distilling plants and attendant auxiliaries to all fleets was made.

13. Submarines were developed together with the equipment of submarine bases and necessary auxiliaries.

14. Destroyers were organized into flotillas and assigned essential auxiliaries.

15. Great advance was made in communications, particularly in radio.

16. Gunnery training was revolutionized and efficiency more than doubled.

17. Great improvements were made in torpedoes and in the training of personnel in their use.

18. A system of intelligence of Trade movements throughout the world was instituted.

19. The stores system for the fleet was thoroughly overhauled.

20. Preparations were started on the East Coast at Rosyth and Cromarty Firth for their use as naval bases. Scapa Flow was surveyed as a possible naval base.

Most of these steps of peace time naval strategy flowed from Fisher's devotion to his god, material. There is no doubt but that the Navy was materially ready at the outbreak of the World War. With all the improvements made by Fisher, a comprehensive naval strategy was lacking. This deficiency must be laid in part at his door.

At Fisher's retirement for age in 1910 the tempo of the naval preparations slowed down. Yet, much of the progress made after this time was prompted by Fisher pulling the strings from the side lines. Among these preparations was the production of the English "War Book". This important piece of preparation strategy dealt with the co-ordination of effort of all departments of the government at the outbreak of war. For the Navy, among other things, it provided for the action to be taken during a period of strained relations and upon the declaration of war, for the mobilization of the Navy, for the cutting of German cables and for state insurance of merchant shipping during war time.

Based upon the policy enunciated by the War Book the Admiralty modified its war strategy. Plans, originally made for a close blockade were given up because of the danger from submarines and destroyers. A "watching policy from a distance" replaced the plans of blockading Germany. Scapa Flow in the Orkneys was selected as the Main Fleet Base from which the

Grand Fleet was to control the North Sea and to support the cruiser squadrons making sweeps to the southward in search of enemy vessels. The Channel Fleet was to watch the English Channel and the southern reaches of the North Sea.

Pre-war conversations with France had tentatively allocated the Mediterranean to her control in the eventuality of war with Germany. The wide areas outside of the home zone and the Mediterranean were to be protected by the British cruiser forces. These were organized to guard the main focal areas where the trade routes of the Seven Seas converged.

With this brief survey of the peace time naval strategy of Great Britain we are ready to consider the actual strategy employed during hostilities. When the dogs of war were unleashed in 1914 the initial British strategical moves corresponded with those outlined in the peace time plans. By rare good fortune the three English Fleets were engaged in a test mobilization at the time relations became strained. Remaining mobilized, upon the declaration of war, the three Fleets of the Navy moved as if on parade to their appointed stations to control the seas for the Allies use and to exclude the Central Powers.

But once on their station, doubts assailed the Grand Fleet as to the safety of its base at Scapa Flow unprotected, as it was, from submarine and destroyer attacks. From this insecure base the control of the North Sea was exercised for a time by the Grand Fleet until the fear of a German attack forced them to move. The German High Seas Fleet, likewise fearful of attack, waited behind fortifications and an elaborate system of patrols and mine fields for an expected on-slaught of the English Navy. With wonderment both navies finally realized that no immediate attack was to be made by the other.

Before this realization dawned the English Expeditionary

Force was landed in France without interruption by the German Navy. German cables were cut and English cruiser patrols were thrown across the North Sea for its control. The process of tracking down and destroying German cruisers and commerce raiders operating on the English trade routes was begun.

The inaction of the German Navy which permitted these operations was an open acknowledgment that it conceded control of the Highways of the sea to the Entente Allies. Such inaction was advantageous to the English Fleet whose superiority increased almost daily by the completion of vessels under construction. Germany lost relatively by her delay in getting her Fleet into action, and this, also, permitted the tactically unprepared British Navy to organize for battle, and to prepare defenses at Scapa Flow.

In making this criticism of Germany's failure to use her navy aggressively it must be admitted that the German High Command considered that the Army would win the war in a few weeks and that the Navy would have nothing to do. The German Navy was even told that it was not desired to interfere with the transportation of the British troops to France. It is quite probable that aggressive action by the German Fleet would have seriously delayed the landing of this force and without its presence there is a possibility that the French victory of the Marne might not have been realized. By the time it was evident that the war was to be a long dragged out affair, the German opportunities for surprise had faded and the German nation was being subjected to the slowly throttling pressure of blockade.

Germany would have felt the pressure of Great Britain's Naval power sooner had it not been for several defects in the English Naval strategy. To the end of the war she remained

satisfied with exercising partial control of the seas. There was no United Allied naval strategy at any time looking beyond this. The failure to dispute the German naval supremacy in the Baltic and the failure to force the Dardanelles kept Russia cut off from her allies and their assistance. This was responsible for the collapse of the poorly equipped Russian Army fighting a hopeless battle against the well prepared Austro-Germans, a collapse which was almost fatal to the cause of the Allies.

A bold aggressive by Great Britain might have shortened the war. But she was unwilling to take any chances that might lessen her naval superiority. Thus her strategy was largely defensive. The dread of a German invasion of England, although an impossibility, contributed to this passive attitude. Another contributing cause was an excessive fear of the German mines and torpedoes.

It is true that one time a naval offensive was considered but it was never carried into execution. Lord Fisher, when recalled to the Admiralty in October, 1914, proposed a grand naval offensive combined with a Russian Army of invasion directed against Germany's Baltic coast. As a part of this plan he proposed sowing the North Sea so full of mines that no German ship could leave its port. This plan found favor for a time but was later shunted aside in favor of the Dardanelles' effort which resulted in such a catastrophe. After the Dardanelles' fiasco the execution of Fisher's plan became impossible due to the collapse of Russia shortly thereafter.

While no grand naval offensive was ever waged the British naval strategy employed made ultimate victory possible. In considering the actual results of British naval strategy it is necessary to examine into what it was expected to accomplish. Admiral Jellicoe, the British Commander-in-Chief of the Grand Fleet, outlined the purposes of the Navy as:

- 1st. To insure use of the sea.
- 2nd. To place economic pressure on the enemy.
- 3rd. To cover an army going over-seas.
- 4th. To prevent invasion.

The third and fourth of these objectives were never challenged throughout the war. The first was accomplished except for the use of the Baltic and the Dardanelles and the interruptions caused by submarine warfare. The second was seriously jeopardized by this failure to control the Baltic and the Dardanelles. Supplies flowed freely across the Baltic into Germany greatly prolonging the war and decreasing the effectiveness of the British control of the seas.

While complete control was not attained the partial control of the seas was of great advantage to the Allies. It should have been the aim of the German Navy to have done all in its power to dispute this Allied control. Yet, the full weight of the German Navy was never directed in this effort. For a considerable time it was considered that the British Navy would be foolhardy enough to butt its head against the impregnable defenses of the German Bight. In their naïve plans the Germans expected the English to suffer such losses from these attacks that they would be reduced to a point where the High Seas Fleet could destroy them. It was a pretty picture from a German point of view but naturally it failed to work when the British Navy declined to enter the spider's web.

Another plan on which the Germans counted was the operation of raiders on the English trade lanes. The full possibilities of a strong effort devoted to this form of warfare was never determined. Yet, the exploits of the German cruisers and raiders which did operate are among the boldest and most enterprising efforts that were recorded. If the leadership of the German Navy, itself, and its strategy had been in keeping

with the spirit displayed by these lower ranking officers in command of these ships, the German Navy's achievements would have been of far greater magnitude.

In the offensive that England carried on against the German raiders Japan was of great help. Admiral von Spee with several German cruisers had been operating against English trade in Asiatic waters when Japan's entry into the war occurred. Fear of Japanese vessels forced the German ships to eastward. When it became evident that von Spee's forces were working to the eastward a detachment under Admiral Cradock was directed to search for them. The two forces encountered each other at Coronel November 1st, 1914. Each side had four ships but those of the English were inferior in gun power and gunnery training, In the action three of the four English vessels were sunk.

The news of this disaster arrived in England close upon the news of the break with Turkey, both occurring on the same day. Immediate action was taken to obtain revenge against von Spee. Two battle-cruisers and twenty-eight other vessels were dispatched on a hunt to round up and destroy his force. The battle-cruisers were ordered with the greatest secrecy to an unknown destination. They in company with four other cruisers arrived at the Falkland Islands off the east coast of South America under the command of Admiral Sturdee. His ships were in the harbor coaling when von Spee's force, now comprising five vessels of war, attempted a surprise raid on the port. But von Spee himself was surprised by the superior English force and all but one of his ships were sunk. The one which escaped was later tracked down and destroyed.

This victory sounded the death knell of German raiders. Others still at large were tracked down and it was only a question of time until they were likewise destroyed by far superior English forces.

The effect of the German raiders on the English strategy may be observed in the distribution of English vessels at the peak of the effort to clear and protect the trade lanes. The strain was so great that the strength of the Grand Fleet was weakened by the scattering of vessels. Had the Germans been alive to their opportunities they might have sought a fleet engagement during this period. The pressure upon the English is revealed by Winston Churchill in these words:

"The strain upon the British naval sources in the outer seas, apart from the main theatre of naval operations, was now at its maximum and may be partially appreciated from the following approximate enumerations; -

"Combination against von Spee, 30 ships  
In search of the Emden and Königsberg, 8 ships.  
General protection of trade by vessels other  
than the above, 40 ships.  
Convoy duty in the Indian Ocean, 8 ships  
Blockade of the Turco-German Fleet at the  
Dardanelles, 3 ships.  
Defence of Egypt, 2 ships.  
Miscellaneous minor tasks, 11 ships.  
Total, 102 ships of all classes.

"We literally could not lay our hands on another vessel of any sort or kind which could be made to play any useful part."

While the pursuit of the raiders was being vigorously carried out along the trade routes a change was instituted in the British naval strategy in the home waters which was destined to have great influence on the course of the war. The whole of the North Sea was declared a military area within which no merchant ship could go without suffering grave danger. Certain lanes were designated for passage of neutral vessels through this zone. England's decision in declaring this military area was a new departure in international law. This afterwards gave Germany the pretext for the "War Zone" of their subsequent illegal submarine warfare.

The ostensible reason for the English declaration of a military area was the alleged German mine laying under neutral flags which had caused the sinking of the battleship



Audacious. The effect of the military area was to increase the severity of the English blockade of Germany and subject merchant shipping to a greater ease of observation and control.

Faced for the first time since the Dutch Wars of the 17th century with an enemy to the northward of the Dover defile, England modified her strategy to meet the changed conditions. The counterpart of the ceaseless vigils off the coast of France, that had kept Napoleon's ambitions at bay, were reproduced in the unremitting watches of the cruiser patrol along the northeastern coast of England and across the North Sea to Norway. Through long winter nights, in storm and sleet, in spite of submarines, they held to their posts. They were the means by which the might of the English Navy was made effective in the blockade of Germany. Back of them lay the Grand Fleet ready to prevent any interruption. Occasional sweeps by this mighty force emphasized this fact upon the German consciousness.

A development of the blockade strategy occurred when it was observed that the neutrals who had access to Germany had greatly increased their imports over their accustomed peace time needs from all countries of the world. The implication was clear that the excess was by some means finding its way into Germany. Considerable quantity of materials reaching Germany in this manner was even coming from England herself

In a series of Orders in Council Great Britain attacked the problem. In 1915 a rationing policy was begun which eventually restricted the imports of these countries having uncontrolled access to Germany to their own actual needs. The pre-war imports of these countries was the gage used in determining their allowances. It was not until July 7, 1916

that the last of the machinery for effective rationing was added when the doctrine of continuous voyage was affirmed stating:

"The principle of continuous voyage or ultimate destination shall be applicable both in cases of contraband and of blockade" ✓

It is needless to point out that the long delay in adopting and completely enforcing rationing measures was a great aid to Germany. Her powers of resistance were prolonged accordingly. It was not until after nearly two years of war that Germany felt a serious shortage of food. Thereafter the inexorable pressure of sea power, continually increasing in effectiveness, wrecked the German morale and with its loss her vast war machine collapsed.

Although the English measures were such as to produce a blockade of Germany no formal declaration of a blockade was ever made. There being no declared blockade the various measures taken to prevent contraband reaching Germany were intensely resented by neutrals. For some time the United States was doubtful whether it had more objections to the policy of Germany or to that of England. The strain in relations was so great that it has even been stated that the eventual possibility of hostile action by the U.S. Navy was the deterring factor which kept Admiral Jellicoe from pursuing the Germans at Jutland and risking heavy losses to the Fleet. Whatever the facts may be, the entry of the United States into the war on April 6, 1917, removed her objections and greatly strengthened the blockade which thereafter was carried on with the utmost rigor.

The Germans countered the blockade tactics of the Allies with various measures. Mines were sown off English ports and in trade lanes, the east coast of England was bombarded, and efforts were made to catch and overwhelm detached British naval forces.

The English reaction to these measures was the strategic re-grouping of the British Fleet. Strong forces, including the battle cruisers, a squadron of fast battle ships, and a squadron of cruisers were organized at Rosyth. Admiral Beatty was in command of this force which, however, remained under the supreme command of Admiral Jellicoe.

Following this restationing of forces more attention was paid to obtaining enemy intelligence. Effective strategy requires accurate information of enemy activities. In no department was English naval strategy to become more effective. The intelligence methods employed have been the basis for many entertaining stories. The usual practice involved copying and decoding supposedly secret German radio dispatches. When German naval forces were at sea they were tracked by radio compass bearings from shore stations.

A major success flowed from British naval intelligence at Dogger Bank, January 24, 1915. A German despatch was intercepted regarding a sortie of German forces under Admiral Hipper to be made in the vicinity of Dogger Bank. Superior English forces under Admiral Beatty were sent out to cut him off. The German forces were surprised at dawn. An engagement ensued during which the German armored cruiser Blücher was sunk and Admiral Beatty's flagship, the Lion, put out of action. This casualty to the Lion, coupled with amateur handling of his command by Beatty, permitted the inferior German force to escape.

Following this action the German Commander-in-Chief who had ordered Hipper out to examine Dogger Bank was replaced. His successor was condemned to inactivity by orders directing him to take no risks with his forces. A long period of comparative inactivity followed.

With the beginning of 1916 the pressure of the blockade was making itself felt in Germany. Accordingly, at this

late date, it was decided by Germany that the war must be waged more energetically at sea if the shackles of the blockade were to be shaken off. Admiral von Scheer was given command of the High Seas Fleet at the time this policy of greater action was inaugurated.

The English were not without warning of these new intentions and prepared to meet them. The German change in strategy was presaged by a renewal of the bombardment of the east coast towns of England. Not long after this occurred the efficient British naval intelligence service obtained advance information that a sortie was to be made by the whole German High Seas Fleet.

This sortie was originally planned to terminate in a bombardment of the English coast with the expectation of drawing out inferior English forces to be overwhelmed by the whole German Fleet. Submarines were to be placed at strategical positions to attack the English forces as they emerged from port. An essential measure of safety to prevent surprise was to have aerial reconnaissance furnished by Zeppelins accompanying the Fleet.

Bad weather, preventing the Zeppelins accompanying, the plans had to be changed and on the 31st of May, 1916, the sortie was made to the northward in the Skagerrak toward the coast of Norway instead of toward England. Warned of the impending movement Admiral Jellicoe and the Grand Fleet proceeded to sea the night before. From Scapa Flow, Cromarty Firth and Rosyth the naval might of England issued to the call.

The greatly superior English Fleet was destined to surprise the inferior German Fleet off the coast of Jutland at a time of great tactical disadvantage. Yet, the latter not only escaped but inflicted more damage than it received. These results were due to a combination of circumstances. Among them

was the defective construction of the English battle-cruisers which were built more for speed than for taking punishment. Of even more importance was the defective tactical training and the lack of indoctrination of the English Fleet. But most important of all was a strategical decision made by Jellicoe himself in the early months of the war which guided his hand and those of the officers under his command in their pusillanimous actions in what was to be the only fleet battle of the war.

Jellicoe had reasoned that the Grand Fleet was the only protection that stood between England and defeat and that his mission was to preserve it and to minimize its risks. Taking counsel of his fears and having an active imagination he credited the German Fleet with much greater powers than his own possessed. He considered that it would retire in order to draw him over German mine fields and submarine infested waters while at the same time subjecting him to destroyer torpedo attacks. It was his decision as a result of this reasoning not to pursue the German Fleet through water it had occupied, and in case of a destroyer torpedo attack to turn away from it to protect the Grand Fleet. In fairness to Jellicoe it must be added that this decision was approved by the Admiralty.

But for this decision a Nelsonic victory beckoned to Admiral Jellicoe, shortly after deployment into line of battle off the Jutland coast on the afternoon of May 31, 1916, he found his fleet squarely across the path of the advancing High Seas Fleet, "capping the T", the most advantageous position that an admiral could place his forces. He had two hours of daylight left. He was far superior in force and he had superior speed. The threat of a destroyer attack at this juncture caused him to turn away ~~and~~ in accordance with his preconceived intentions ~~and~~ to risk the Grand Fleet and his opportunity for a decisive victory was lost.

Fortune is a fickle mistress. She must be seized when in the mood. Her favors are seldom offered more than once. So it was on this occasion. The great opportunity so fraught with possibilities was missed. The German Fleet returned to port in safety and the train of consequences so damaging to the Allies began to flow.

The German nation hailed the Battle of Jutland as a German victory and so in fact it proved to be. From the point of view of comparative losses it was a German victory, their losses being only about half that of the English both in ships and men. It is true that the British after the battle still held control of the sea, which in the end contributed powerfully to the capitulation of the Central Powers. But the increased prestige of the German naval leaders as a result of the action made it possible for them to force the inauguration of unrestricted submarine warfare. The morale of the German Nation was tremendously increased while that of England was correspondingly depressed. German trade across the Baltic continued undisturbed until the end of the war and was one of the strong sustaining factors that permitted her to carry on in the face of the blockade in the North Sea. Because of the English preservation strategy at Jutland the German High Seas Fleet survived and became the backbone of the submarine warfare. It is hardly too strong a statement to make that on the 31st day of May, 1916, Admiral Jellicoe lost the greatest single opportunity for a decisive stroke that occurred during the war.

Previous to Jutland England had participated in another enterprise which might have rendered a decisive blow to Germany. This was the unfortunate Dardanelles fiasco. The value of the Dardanelles and the possibility of the strait being seized by England had not figured in the pre-war strategy of Great Britain or of her Allies.

Had the Dardanelles been opened early in the War and Constantinople captured, it would have been such a physical and moral victory that it is improbable that the Central Powers could have withstood its effects. It would have ended the isolation of Russia. Munitions could have been furnished her in exchange for food products sent to England and France. The moral effect of a victory in the East upon the hesitating nations of Roumania, Bulgaria and Greece would have been a potent influence to have brought them into the war on the side of the Allies. But victory was not to be.

Plans which might have ensured success were never made. A series of unplanned inchoate operations followed each other in succession. The first step in the chain of misdirected operations was a demonstration bombardment by British naval forces. The next step was an unassisted naval attack aimed at forcing the Dardanelles. The third was a tremendous joint Army and Navy operation which ended abortively like the others.

The egregious blunders made by the officials who ordered and mis-directed these three operations would have been humorous if they had not been so tragic. At the time the first operation was carried out no future efforts were contemplated. Yet, as it turned out, this first demonstration gave the Turks warning of the possibility of coming operations and, assisted by the Germans, they increased the strength of their defences many fold. When subsequent operations were decided upon there was additional warning given by the full information of England's intentions being broadcast in the newspapers.

Consequently the forts were well prepared for the second operation which once again demonstrated that naval vessels are no match for shore defences. By the time the third and last operation was begun, the Turks and Germans had had so much time to prepare that they were able to eventually repulse the attack with great loss to the English. This last effort terminated on January 8, 1916 with the evacuation of all forces on shore.

Throughout the whole of this last operation the soldiers and sailors bore the brunt of the statesmen's blunders. Their bravery and uncomplaining sacrifices were the sole redeeming features of a tragedy of errors. Nothing, however, could redeem the mistakes. Their heroic efforts bore testimony that if the great effort expended at the end had been thrown into the first attempt, when defenses were unprepared and the enemy surprised, the Dardanelles would have fallen like a ripe apple.

A mistake similar to that of England in the Dardanelles was made by Germany prior to the beginning of her unrestricted submarine campaign against commerce in 1917. Sporadic submarine operations were started and stopped several times prior to this final effort. The English, however, unlike the Turks at the Dardanelles, failed to heed the plainly written warnings and were surprised and almost overwhelmed when the full menace of the German submarine developed in all its power.

Up to the outbreak of the World War neither opponent had developed the possibilities of the submarine. As the war progressed their value was demonstrated in the first tentative beginnings. The Germans recognized their possibilities much sooner than the English and taking advantage of Great Britain's vulnerable island position pressed their attack.

The rapid strides made in submarine use by the Germans so impressed Admiral Jellicoe that he deserted Scapa Flow as a base until adequate submarine defenses had been prepared for it. It was the potentiality of the submarine which had previously decided him, to a great extent, to use defensive strategy in case of a fleet action.

From the earlier beginnings the Germans pressed on to a more aggressive and extensive employment of the submarine. The special ease with which they could elude superior forces by submergence and the facility with which they could be used as commerce destroyers made their use especially attractive. The



British declaration of a military area in the North Sea gave a good excuse to justify a German declaration of a War Zone about the British Isles which was put into effect February 18, 1915. Within the area prescribed all merchant shipping was to be destroyed although the order was later modified to the extent that American and Italian flags were to be spared.

The destruction of shipping that occurred during the period following this declaration was considerable and while highly inconvenient to England had but little other effect upon her. This was due principally to the small number of submarines which were available. Most German writers agree that this first effort was premature and should not have been started until at least a year later when the number of submarines available would have been so large as to have made success certain. This first submarine campaign was also handicapped by the protests of neutrals, particularly those of the United States. It was finally in deference to the objections registered first with the sinking of the Lusitania, and then on the sinking of the Arabic, that on September 22, 1915, the attacks were discontinued against commerce.

At first the British Navy was wholly unprepared to meet the new and unexpected submarine aggression. The strategy gradually evolved to meet it was not thought out in advance. It was a painful development under pressure of a dire threat. Nor was it more successful than could be expected from such a hasty solution of a new problem.

One course followed was to patrol the principal trade focal areas to protect commerce against the deadly submarine. The search for a submarine was like hunting for the proverbial needle in a haystack. Little success was attained in this effort although enormous numbers of auxiliary vessels were drawn into the exertion. A few submarines fell prey to a type of craft which became known as Q-boats. These were vessels disguised to

look like innocent merchantmen but each carrying a camouflaged battery of guns. Submarines attacking such vessels were lured into close range by a fake abandonment of the vessel. When the submarine was close aboard the battery would be uncovered and the submarine fired upon.

The losses of merchantmen were studied early in the war and it was observed that about half the sinkings resulted from the gun fire of submarines. Merchantmen armed with guns required a submarine to use torpedoes and thus reduced losses. When this was demonstrated the arming of merchantmen with any kind of a gun that would fire went forward apace.

A further measure was mining to keep submarines out of certain areas. The original efforts in this direction were much less extensive than those urged upon the Admiralty by Admiral Jellicoe and Lord Fisher.

A serious mistake was made in English strategy in thinking that the counter efforts had defeated the submarine campaign when Germany abandoned it in September, 1915. Instead Germany had bowed to the protests of the United States with whom she was not ready to risk war at that time. England's error led her to slacken efforts to formulate effective measures to counter the submarine and when the final unrestricted assault began she was ill prepared to meet it.

A recrudescence of the submarine offensive flared up in 1916, but was again discontinued because of protests from the United States upon the sinking of the Sussex with the loss of many American citizens. This submission to neutral opinion was short lived, however. The pressure was continually growing in Germany to disregard the protests of the United States and to proceed with unrestricted attacks against all merchantmen headed for Allied ports. But, until after the Battle of Jutland, the German confidence in her own sea prowess was not strong enough to overcome the voice of caution.

The success of the German Navy in this battle, pitted against the might of the Grand Fleet, raised its prestige to a point where the statement of the naval leaders in regard to submarine warfare was accepted. They claimed that unrestricted submarine warfare would starve England into submission in less than six months, and that the war would be won before the power of the United States could be felt should she declare war. Based upon these false hypotheses, the fateful die was cast by Germany and unrestricted U-boat warfare was begun February 1, 1917.

England's head bowed before the fierceness of the ensuing storm. The measures of protection in which she had previously placed her confidence were found to be wholly inadequate. She realized that unless the curve of sinkings was checked the war would soon be irretrievably lost. America's entry on April 6, 1917 brought no immediate relief. It did, however, bring a fresh viewpoint on the naval strategy of the Allies.

One innovation in the strategy, supposed to have resulted therefrom, was the adoption of the convoy system in July of the same year. This is reputed to have done more than any other one thing to defeat the submarine. When the convoy system first went into effect it seemed to the submarines as if all the merchantmen had suddenly vanished from the surface of the ocean. Instead of there being hundreds of individual ships to attack the submarines found themselves restricted to attack a relatively small number of convoys, all well guarded and following no set routes.

As a further measure against the submarine, mine laying in the North Sea was carried out on such a tremendous scale as to greatly increase the hazards of their operation. In this task the United States played a large part, having at one time a force capable of laying five thousand mines in four hours.

Invention came to the aid of the patrol forces to remove part of their blindness by listening devices. They were also equipped with depth charges and Y-guns to increase their effectiveness. More submarines fell prey to them as their equipment was improved.

Finally the curve of sinkings turned downward. The Germans had played their trump card and lost. Then the slow and inexorable pressure of England's sea power continued, shaking the morale of the German nation and causing its collapse while the armies in the field were still effective.

In this paper thus far we have traced the outstanding principles and elements of the naval strategy of Great Britain in the World War. We are now ready to summarize briefly the salient points, to restate some of the mistakes and to draw such conclusions as we believe are applicable for use in the present day.

As we glance back in retrospect, the importance of the peace time strategy of preparation is the first to strike our eye. It was the realization of this importance by her statesmen and the Admiralty which gave England a predominant navy. This predominance which ensured control of the seas, alone made ultimate victory possible. It is well to remember that this continuity of peace time strategy is dependent upon the belief of a nation's statesmen in its value. When they stray from its practice they are laying up future trouble for their country.

It is not always clear sailing in formulating and carrying out the tenets of peace time strategy. Sometimes this difficulty is due to the lack of unity of thought and of convictions of the naval officers themselves. Lord Fisher brings this point forcefully to view in his remarks apropos of the submarine which is as follows:

"There is a strong animus against the submarine - of course there is!

An ancient Admiralty Board minute described the introduction of the steam engine as fatal to England's Navy.

"Another Admiralty Board minute vetoed iron ships, because iron sinks and wood floats!

The whole Navy objected to breech-loading guns, and in consequence sure disaster was close to us for years and years.

There was virulent opposition to the water-tube boiler (fancy putting the fire where the water ought to be, and the water where the fire should be!)

The turbine was said by eminent marine engineers to have an 'insuperable and vital defect which renders it inadmissible as a practical marine engine - its vast number of blades - it is only a toy.' 80 per cent. of the steam-power of the world is now driving turbines.

Wireless was voted damnable by all the armchair sailors when we put it on the roof of the Admiralty, and yet we heard what one ship (the 'Argyll') at Bombay was saying to another (the 'Black Prince') at Gibraltar.

'Flying machines are a physical impossibility,' said one very great scientist four years ago. To-day they are as plentiful as sparrows.

'Submarines are only playthings!' was the official remark of our Chief Admiral afloat only a little while ago, and yet submarines are talked of as presently ousting Dreadnoughts.

"The above texts, extracted from comparatively modern naval history (history is a record of exploded ideas!); should make anyone chary of ridiculing the writer when he repeats: The submarine is the coming type of war vessel for sea fighting."

The divergency of views indicated in the above extracts, quoting Lord Fisher, points to the difficulty of achieving agreement on any matter pertaining to the navy. In a question of types of vessels peace time strategy should step in and say, "What kind of a war is likely to be fought; what types of ships will be encountered; what are the strategical considerations which affect the type of ships?" Satisfactory answers to these questions should produce designs upon which the majority of officers could express their approval.

As peace time strategy will guide the types of ships to be designed it will also indicate the value of well selected and protected bases. They will be obtained and protected during the piping times of peace so that when war breaks the fleet will have places of safe repose from which they may make their sallies and to which they may return to recuperate.

Not only must peace time strategy prepare an adequate navy and the bases that it needs, but it must develop a commander who in peace time can forge the mighty instrument at his disposal

to do his will during the emergency of war. It is a natural question to ask, was Great Britain's Navy commanded by an officer having such abilities. It is believed that this question must be answered in the negative. Myers, in his recent book entitled "Strategy" has stated that the commanding officer must have the following eight outstanding qualities:

"(1) Knowledge; (2) Courage; (3) Tenacity of purpose; (4) Energy; (5) The ability to indoctrinate all subordinates - to impart his methods to all those under him so that they will act, when the freedom of the initiative is theirs, understandingly as the commander would act were he present; (6) The ability to instill into the organization the moral stamina that results in the will to win; (7) Freedom of mind; (8) The ability to manage."

When war struck and danger threatened, the British Grand Fleet was under the command of Sir George Callaghan. At this perilous moment he was superseded by Admiral Jellicoe who was thought by the Admiralty to have all the qualities that were demanded of a fleet commander. When the test came at Jutland it was found that he had feet of clay. He failed in many respects to live up to the above requirements of a commander.

As the Admiral in command of a fleet should be qualified by the most stringent standards to lead it in war, so should the Admiralty be qualified by organization and personnel to meet the exigencies attending a shift from peace to war. In peace time it needs to be organized functionally on the basis of war demands so that the shift from peace to war will find it functionally prepared to meet the new problems. Any increase in load can then be met by simply adding necessary personnel to the already existing offices. It is hardly necessary to mention that the British Admiralty was not organized at the outbreak of the War to meet the standard here described. Yet, everything considered, it was above average in efficiency in many respects.

For example, when relations became strained it had the courage and foresight to keep the British Navy mobilized be-

yond the scheduled time for the test mobilization then in progress. This permitted the attainment of what should be the aim of every country, namely, to dispose its armed forces in advantageous positions prior to the outbreak of war. When war was declared the realization that the English Navy was mobilized and on station had a dampening effect upon the German morale, and was one of the factors giving the Allies control of the North Sea.

When we come to study the principal mistakes in the naval strategy of the World War there are frequent allusions to the inadequate study of war required in the training of the English Admirals. It is charged that abstract reasoning was distasteful to them, and that they were not the students of their profession that they should have been. To these deficiencies have been laid the failure to recognize the need for and to insist upon a trained Admiralty War Staff.

To the absence of the latter some writers have laid the blame for there being no well thought out naval plans of comprehensive scope at the beginning of the War and the series of errors which were committed as it progressed. These errors may be summarized briefly as follows:

Pre-war strategy neglected the Dardanelles.

The vital importance of the sea battle was discounted and, with a defensive role assumed, the only fleet battle of the War was indecisive.

The Baltic was neglected and Russia allowed to collapse.

Ostend and Zeebrugge were evacuated and nothing done to block them up or make them unsuitable as submarine bases for the enemy. Nothing was attempted to prevent the use of these bases until the Germans had fortified them heavily.

The convoy system was not used until the war was almost lost. It is of interest that a Royal Commission of 1879 had pronounced convoys impracticable. This remained the belief of the Admiralty until convoys were tried finally as a last resort.

Among pre-war aberrations were the thoughtless scrapping of numerous ships, which later were so urgently needed, and the introduction of the dreadnought and battle cruisers.

While discussing the naval strategical errors of the War it will complete the picture to briefly summarize those of Germany.

First, Germany considered that the War would be so short that the Navy would be of little value, and it was relegated to a negative role.

Second, no attempt was made by the Navy to interrupt the flow of British Expeditionary Forces to France at the outbreak of War.

Third, a much greater effort could have been made by commerce raiders.

Fourth, the submarine campaign was begun before Germany was ready for it.

Fifth, no attempt was made by the Fleet at the time of the great German Army offensive of 1918 to stem the inflow of British Troops.

Sixth, there were no offensive naval war plans.

Seventh, there were no joint war plans combining the efforts of the Army and Navy.

From this consideration of the strategical errors let us record some additional lessons which may be learned from an examination of that great laboratory, the World War.

Jutland taught the necessity for doctrine and indoctrination. In this battle the huge English Fleet was but an awkward gangling giant whose limbs failed to co-ordinate because the central nervous system of doctrine and indoctrination did not exist to carry the messages to the separate parts. This battle also revealed defects in the peace time strategy of preparation in that glaring deficiencies of flash protection in turrets and between broadside guns had been overlooked. Rapid sprinkling systems had not been installed. The huge guns of the superdreadnoughts and battle cruisers had not been provided with armor piercing projectiles. Consequently, their tremendous power was largely wasted. The German projectiles, although lighter were designed to pierce armor. They penetrated the armor of several English ships and blew them up. It may be remembered that Fisher's peace time strategy had sacrificed armor for speed and heavy guns. These features of design proved to be wrong in the crucible of war.

Another deficiency revealed was that British capital ships mined or torpedoed rarely survived. German capital ships, built to take punishment, withstood such damage and were still able to fight and continue steaming. The clear lesson here indicated has been heeded by most nations since then in taking steps to increase the flotation of their ships through the use of greater subdivision and the use of bulges.

Another lesson taught was the value of the submarine against commerce when used in unrestricted warfare. The fitness of the



submarine for distant patrol work was also fully demonstrated. But against organized naval forces and against well protected convoys the efficiency of the submarine was not proved. Relatively few losses were suffered by such forces. The reason for this must be considered of great importance in any future war. Was it because the submarine was so occupied in operating against unprotected merchantmen that she was not used against the English fleet? Was it because the protecting forces made it impracticable to attack successfully? Or, was it because the submarine commanders had no stomach for the hornet's nest that an attack on screened forces would draw down on them. The answer when arrived at will have an important bearing on the naval strategy of the next war and will serve as a guide to the role the submarine can be expected to play.

The struggle to overcome the submarine menace brought the value of the small craft to the fore. Any vessel that could float and move under its own power was pressed into service. There was no such thing as an obsolete ship. With the increase in efficiency of the submarine which will be seen in the next war the old vessels which now in time of peace cannot earn their keep may again be the life saver of some hard pressed nation.

What other lessons, which may be deduced, are applicable today? The need for co-operation is one. Co-operation, between allies, between army and navy, between units within the navy is a very fundamental of success. Lack of it caused many failures and marred many successes which might have been greater.

Also it must be realized that naval strategy in war is of importance only as it affects land events. Germany failed to realize the importance of this truth when for months she used her High Seas Fleet to defend the German Bight when no one wanted the Bight. During these months many favorable opportunities were wasted.

The naval lessons in regard to air are meager because of the infancy of this arm of the service. The vulnerability of the German submarine bases in Belgium to air attack, however, pointed

out the desirability of keeping bases out of easy air range of enemy territory. Applying this to our own case, Puget Sound is within easy air range of Canada. In the unthinkable possibility of the United States and Canada ever engaging in hostilities our biggest and in fact our only navy yard suitable for capital ships on the West Coast might easily become untenable.

Continuing the consideration of our own country, we have but little to be proud of in our past naval strategy. It has not been either consistent or continuous. The Navy has been the football of politicians. We have had no enduring peace strategy. The country has been swept by periodic waves of altruistic hysteria during which foreign propaganda finds a particularly fertile field.

This was the case at the Washington Conference. The forfeiture of the right to further fortify the Islands in the Pacific and our self immolation in voluntarily giving up our preëminent naval position through the scrapping of our Navy at this time can be laid to the ignorance of our statesmen in the value of peace strategy. Had our people been educated to the importance of an adequate navy and the importance of the Island bases it is probable that they would not have permitted such a free sacrifice of their rights.

Let us hope that the sequel to giving up the right to fortify the Islands will not be the same as that which France suffered on one occasion. Her statesmen gave up the right to erect fortifications in Bengal. She lost Bengal! Will history be repeated?

Following the Washington Conference our Naval Board laid down policies which were a good foundation for a naval peace strategy. But these were hardly formulated before they became a nullity through the failure of the Congress and the Country to follow them. Must it be ever thus?

It seems so until there is some fundamental change in our government or there is a broader education of our statesmen and politicians in the needs of national defense. Some system of periodic inspection of national means and of the state of preparedness would be one essential of the change in the government organization. Another would be the drafting of tenets of national strategy to be authoritative, be recognized as such, and serve as guides for national action. While this millenium is arriving there is a present need for co-operation of our State, War, and Navy Departments along the above lines.

In convincing our statesmen of this necessity most of the responsibility must fall to the Naval Officer and to the Army Officer. Yet, the problem involved in meeting this responsibility is one of the most difficult that they could undertake. It is out of their line. They are not fitted for it by training. Consequently it is hard for them to bring conviction to the minds of men who through their experience have gained wide knowledge and administrative ability have but little acquaintance with national strategy and national defence.

That some measure of success may occasionally attend their efforts is shown by the fact that Great Britain, in 1927, established an Imperial Defence College. From this root source her Cabinet Ministers may in the future be rendered immune from the nescience that entailed misdirection in the Great War with such ineffaceable consequences.

There is need for a similar college in the United States. To it all the higher public servants could go with profit to themselves and their country. Such a college would ensure that the statesmen and politicians of the country realized the value of a continuing national strategy in peace and war. When and if this ever occurs we may see happier days for national defense and for those upon whom the ultimate measures for its protection falls. Then no longer could it be said:

"When danger threatens and the foe's night,

'God and our Navy!' is the Nation's cry.  
But, the danger over and the country righted  
God is forgotten and the Sailer slighted."

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