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# REPORT

OF

## ADMIRAL OF THE FLEET

VISCOUNT JELlicOE OF SCAPA  
*G.C.B., O.M., G.C.V.O.*

ON

# NAVAL MISSION

TO THE

## DOMINION OF CANADA

(November-December, 1919)

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Letter of 31st December, 1919, to His Excellency the Governor  
General and Commander-in-Chief, enclosing:—

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*Jellicoe, Robert James*

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THE DEPARTMENT OF THE NAVAL SERVICE,  
OTTAWA.

31st December, 1919.

SIR,—

I have the honour to inform Your Excellency that in accordance with instructions received from the Lords Commissioners of the Admiralty, issued as the result of a request from the Government of Canada, I arrived at Esquimalt in H.M.S. *New Zealand* on the 8th November, 1919. The object of my visit is defined in my terms of reference as follows:—

“To advise the Dominion Authorities whether, in the light of the experience of the war, the scheme of naval organisation which has been adopted, or may be in contemplation, requires reconsideration; either from the point of view of the efficiency of that organisation for meeting local needs, or from that of ensuring the greatest possible homogeneity and co-operation between all the naval forces of the Empire; and, should the Dominion Authorities desire to consider how far it is possible for the Dominion to take a more effective share in the naval defence of the Empire, to give assistance from the naval point of view in drawing up a scheme for consideration.”

2. The subjects on which advice was requested by the Government of Canada are given in a memorandum as follows:—

“The Canadian Government would be glad to have your opinion on the necessary steps to be taken and the best methods to be adopted in the event of the Canadian Government deciding to adopt a policy of a local navy.

“2. The Government would be glad if this advice would cover as many incidental points as possible, and a list of definite questions is attached. These questions should not be considered as exhaustive, and should be considered in the light of the request in the first paragraph.

“3. If you desire to submit alternative recommendations the Government will be glad to consider any such proposals.

“4. The Government will also be glad to have your opinion on any point connected with Naval Defence on which you may care to express an opinion.

“1. *Canadian Pacific Naval Base.*

“(a) Is a Naval Base considered necessary on the Canadian Pacific coast on account of either Canadian or Imperial interests?

“(b) If so, which is considered the best site for the purpose?

“(c) On what scale should the base be constructed?

“(d) Is it considered that Esquimalt should be abandoned as a Naval Station?

“(e) Is it considered that any points on the British Columbian Coast should be fortified?

“2. *Policy, Co-operation and Administration.*

“(a) In what manner do you consider that Canada can best co-operate in the naval defence of the Empire and its sea communications?

"(b) If Canada does co-operate, do you consider that the first effort should be on the Atlantic or Pacific coast, or divided between them?

"(c) Under such circumstances, will you suggest the type of vessels you recommend that Canada should first acquire and maintain?

"(d) Will you state the suggested total naval force which you recommend that Canada should acquire in the immediate future under different financial conditions, viz., between the limits of the smallest force that can be of real value, and that which would form such a portion of the Empire's naval forces as would be commensurate with the importance of Canada's population and her position in the Empire?

"(e) What advice have you to offer on the subject of the administration of the Canadian Naval Service, if it is decided to maintain naval forces of the strength mentioned in paragraph (d)? Obviously the *strength* of the administration will depend on the size of the force, and it should therefore be capable of expansion.

" 3. *Royal Canadian Navy—Personnel.*

"(a) Do you recommend a system of long service or short service for Canadian personnel?

"(b) If short service is recommended—

i. What length of service is considered best?

ii. What proportion should short service men bear to long service men, (some of which, it is assumed, would be required)?

iii. What method of training do you advocate, both for Military and Engineering branches?

" 4. *Royal Canadian Navy—Works.*

"What are the minimum works necessary on the East and West coasts?

i. To maintain the vessels recommended for construction.

ii. To maintain efficient bases for the use of the ships of the Royal Navy.

" 5. *Halifax Dockyard—Reconstruction.*

(a) Do you consider the scheme submitted sufficient for the purposes enumerated above in 4 on the East coast?

(b) If not, what alterations are considered necessary?

" 6. *Naval Bases on the East Coast.*

"(a) Do you consider that Halifax is sufficient as a naval base on the East coast?

"(b) Do you consider that any ports on the East coast other than Halifax and Quebec, should be fortified for naval purposes?

"(c) If so, to what extent?

" 7. *Mining.*

"(a) Do you consider that preparations should be made for mining any Canadian Ports in case of emergency?

"(b) If so, which, and to what extent should preparations be made?

"(c) How do you consider the personnel necessary should be raised and trained?

"(d) What type of mine is recommended?

" 8. *Aerial.*

"(a) Do you consider that permanent aerial forces are necessary for the defence of Canadian coasts?

"(b) If so, on what scale?

"(c) Where do you consider air stations for naval purposes should be erected?

"(d) In the event of the Canadian Government deciding to create a separate Air Force, what method of co-operation between Navy and Air Force, do you recommend with regard to training, discipline, control and operations?

" 9. *Anti-Submarine Measures.*

"(a) What preparations do you consider should be made against hostile submarines, for use in an emergency?

"10. *Defensively Armed Merchant Ships.*

"(a) Do you consider that armament should be maintained in reserve for Canadian Merchant Ships?

"(b) If so, what armament do you consider suitable?

"11. *Naval Intelligence Organisation.*

(a) Do you consider the proposed Naval Intelligence organisation laid before you suited to both Canadian and Imperial requirements?

"12. *Wireless.*

"(a) Do you consider a high power W/T station is necessary or desirable on the Pacific coast?

"(b) If so, of what description should it be?

"13. *Royal Naval Canadian Volunteer Reserve.*

(a) Have you any suggestions for the re-organisation of the Royal Naval Canadian Volunteer Reserve?

"14. *Minesweeping.*

(a) What preparations, in your opinion, should be made for minesweeping in emergency.

3. I have the honour to present the attached report and appendices. Remarks on other naval subjects are included in accordance with paragraph 4 of the covering memorandum.

4. During my stay in Canada I have visited the following ports—Esquimalt, Victoria, Port McNeill (Vancouver Island), Vancouver City, Ottawa, Montreal, Quebec, Halifax, and St. John, N.B.

Members of my staff have also visited Alberni and the Alberni Canal, Uchuckléit Harbour, Bamfield Creek in Vancouver Island, and Prince Rupert Harbour proceeding by the Inner Passages. Sydney Harbour (Cape Breton), Shelburne and Liverpool Bay in Nova Scotia were also inspected by members of my staff.

I have visited by invitation the cities of Calgary, Regina, Winnipeg, and Toronto; and in all cases great anxiety for information on naval subjects was evinced.

The several branches of the Navy League in the Dominion were particularly desirous that I should address meetings in the principal cities with the object of emphasizing the supreme importance of Sea Power to the Empire, and this was done. In this connection I was much struck with the great work accomplished in some cities,

particularly Toronto and Victoria, in the formation of Boys' Naval Brigades and the excellent and systematic instruction given to the boys in seamanship, signalling, wireless, etc., and in fostering the sea spirit. The greatest credit is due to those who devote a very large proportion of their time and large sums of money to the furtherance of this work. At the head of the movement is Mr. Aemilius Jarvis of Toronto.

5. The question of the naval defence of Canada has been under consideration since the Colonial Conference held in 1902, and various developments that have taken place since that date are too well known to need detailed recapitulation.

The outcome of the 1902 and succeeding conferences was the passing of the Naval Service of Canada Act in 1910, and in August, 1911, His Majesty the King was graciously pleased to approve of the naval forces of Canada receiving the style of the Royal Canadian Navy, and of the ships of war of that navy being designated as His Majesty's Canadian Ships.

6. The heavy financial burden that has fallen on the people of the United Kingdom as the result of over four years of war has resulted in a great reduction in the strength of the British Fleet. This is common knowledge, but the fact emphasizes the increased importance and value of such co-operation on the part of the overseas Dominions in the protection of sea communications and general naval defence, as the people of the Dominions are prepared to afford. Some idea of the extent to which the United Kingdom insures her overseas trade by spending money on the Royal Navy is given in the approximate figures in Chapter I.

7. The form which the Canadian naval effort should take has been a matter over which there has been considerable controversy in the past. The war having demonstrated, as in the case of previous wars, the vital importance of Sea Power to the Empire, it may be that the increased value of Dominion naval assistance, and the strength of the desire to afford that assistance, will make it easier to reconcile conflicting views.

In Canada, where so large a proportion of the population lives at a great distance from the sea, there will always be the inherent difficulty of obtaining recognition of the fact of the dependence of the prosperity of the people upon the safety of those sea communications along which produce travels. Winnipeg is some 1,125 miles from the Pacific and about 1,350 miles from the Atlantic. In contrast to this it is of interest to note that Warwick, in the centre of England, is only about 65 miles from the North Sea, and about 95 miles from the Irish Sea and the English Channel.

8. The German menace has now disappeared, but very considerable efforts are still required in the future by the people of the British Empire if they desire to maintain Sea Power on the same proportionate scale as in the past.

It has never been possible in any war for the British Navy to obtain such complete command of the sea as to exclude an opponent from all access to it, and modern conditions of naval warfare greatly increase the difficulty of preventing the escape of isolated raiders from a blockaded area. It therefore becomes increasingly necessary to keep sufficient naval force in various parts of the world to protect trade, and to ensure the early capture or destruction of such enemy vessels as may escape the main blockade with the object of interrupting our over-seas communications by gunfire, torpedoes, mines, or aircraft.

9. The exigencies of the military situation during the late war necessitated the use of a large number of our men-of-war abroad for the work of convoying transports from the various Dominions and India to the European theatre of war; and this fact, combined with the policy of reducing our overseas squadrons in order to effect the concentration in Home Waters which was necessary to give a sufficient margin of strength over Germany, resulted, when war came, in our being compelled to rely to a considerable extent upon the assistance of some of our Allies for the safety of our sea communications abroad. Thus, in the Mediterranean and West Atlantic, we relied upon help from the French; whilst in Far Eastern waters, and, in the latter half of the war in the South Atlantic, we were to a considerable extent dependent upon Japanese co-operation.

The naval assistance in the shape of cruisers, destroyers and other small vessels rendered during the last eighteen months of the war by the United States, was of great help in the institution of the system of protecting trade by convoy. Without this help we should only have been able to use convoys to a sufficient extent to meet the submarine menace by abandoning some of our overseas expeditions.

10. The Admiralty, in a memorandum on Sea Power in 1902, informed the Dominions that—

“It would be necessary that we should have sufficient power available to carry on a vigorous offensive against hostile outlying squadrons, without unduly weakening the force concentrated for the decisive battle, whether in Europe or elsewhere.”

The weakness of our outlying squadrons already mentioned prevented the early institution of this necessary vigorous offensive in the late war.

11. War experience has also shown that submarines can operate successfully at immense distances from their bases, and this fact necessitates the provision of defence against this type of attack in almost all parts of the Empire.

12. The growing development of aircraft produces yet another type of attack which must be met by local forces, even when the hostile nation is at some considerable distance.

13. The naval problem of Canada is complicated by the fact that the two coast lines of the Dominion are separated from each other by some 2,500 miles as the crow flies. By sea the distance from Vancouver to Halifax is some 6,400 nautical miles via the Panama Canal, and some 13,800 nautical miles via the Straits of Magellan. For safety *under all conditions* each of the Canadian coast lines requires certain local defences, and in addition each requires a naval force to guard the trade and the coast. It is, of course, true that in some cases the danger of attack is remote, and the risk may be accepted.

14. It may possibly be desired to give consideration in addition to the question of Canada's being equipped to play a part in the naval defence of the Empire by the provision of a force which can assist in such operations in the main theatre of any future war as will bring the war to a victorious end.

Figures are given in Chapter I showing the naval force that could be maintained for various alternative sums in the event of any policy of this nature being adopted.



**15.** It is naturally more difficult to attain and maintain a high pitch of efficiency in a small naval force than in a large fleet. The important element of competition is largely absent; there are fewer brains at work on improvements and innovations; and the officers, particularly those in the higher ranks, have insufficient experience in fleet work. These difficulties will be largely overcome if the officers in particular, as well as some of the men, of the Royal Canadian Navy spend a proportion of their time in ships of the Royal Navy. Frequent meetings of Canadian vessels with those of other Dominions, and of the Royal Navy; and fleet exercises carried out annually on a large scale, would give opportunities for acquiring experience, would produce interchange of ideas, and would promote competition. Officers and men would see for themselves how they compared in efficiency with those whom they met.

One fact must always be borne in mind, however, viz., that first class efficiency in the naval service can only be produced by hard work and continuous training, whether it be connected with the handling of ships and fleets, gunnery, torpedo, mining and engineering work, seamanship, or signalling; and that a fighting service on which so much depends can never be satisfied with anything less than the highest efficiency.

**16.** In Chapter III proposals have been made with a view to ensuring that officers of the Royal Canadian Navy should have all the possibilities open to them for advancement to the highest commands in the fleet of the Empire.

**17.** The question of the organization for training officers and men for any Canadian Naval Force is complicated by the great distances which those under training must necessarily travel in order to reach training establishments, as well as by the fact that if such establishments exist on one coast only, officers and men are constantly very far away from the localities in which they reside.

In the case of very small naval forces only being maintained by Canada it would probably be more economical to send the few officers and men needing specialist training to England than to construct and maintain Canadian training establishments for this purpose.

It is proposed that the training of boys should be carried out in establishments on shore. This is a more economical method than that of maintaining a training ship. The *Niobe* and the *Rainbow* could, under these circumstances, be disposed of.

**18.** A chapter has been devoted to the important subject of discipline, as it is felt that this is a matter to which special attention is necessary at the present time in view of the general unrest throughout the world which has resulted from the strain of prolonged war.

In all ages it has been accepted as an axiom that no armed force can exist without discipline. The only real difference of opinion that arises is as to the method by which discipline is first acquired and then maintained. Accepting, then, that discipline is essential to armed forces, the question at issue is as to the method of instilling discipline into the personnel of naval forces, and of maintaining it. Unquestionably this should not be done by undue severity, but by other and better methods which almost unconsciously breed the sense of duty, and the spirit of discipline, especially in the young. For this reason officers and men should be entered at an early age. Discipline is instilled with comparative ease by those who understand the temperament of the young, and it is therefore essential to select with great care those who will have the upbringing of the future generations of naval officers and men belonging to the Dominions.

ion. Once, however, these trainers of youth are selected, it is essential that, so long as their action is correct, they should be supported by authority, as nothing can be more fatal to discipline than action tending to bring into disrepute the head of any training establishment on a disciplinary question.

In his final despatch during the late war Field Marshal Earl Haig made the following remarks on the subject of discipline:—

'Discipline has never had such a vindication in any war as in the present one, and it is their discipline which most distinguishes our new armies from all similarly created armies of the past. At the outset the lack of deep seated and instinctive discipline placed our new troops at a disadvantage compared with the methodically trained enemy. This disadvantage, however, was overcome, and during the last two years the discipline of all ranks of our new armies, from whatever part of the Empire they may have come, was excellent. Born from a widespread and intelligent appreciation of the magnitude of the issues at stake, and the firm belief in the justice of our cause, it drew strength and permanence from a common-sense recognition of what discipline really means—from a general realization that true discipline demands as much from officers as from men, and that without mutual trust, understanding and confidence on the part of all ranks, the highest form of discipline is impossible.'

**19.** It is obviously necessary that the personnel of the Navy should be given every consideration and comfort that the conditions of life on board a warship permit, but it is inevitable that life at sea can never compare in comfort with life on shore, and if the manhood of a nation is not prepared to put up with the inherent discomforts of sea life, and to submit to necessary discipline, that nation cannot hope to become a Sea Power.

**20.** The war has shown the exceeding value of a first rate naval intelligence organization. It is recommended that every possible encouragement should be given to the development of such an organization, which should work in close collaboration with the Intelligence Divisions of the War Staffs of the Royal Navy and other Dominion Navies.

The proposals also made in the same chapter on the subject of wireless organization and wireless communication are of considerable importance. They are the outcome of experience gained during the war in which wireless work in the Navy played such an important part. Rapid developments are in progress in this branch, and should be closely watched.

**21.** The subject of wireless organization and wireless communication is of considerable importance. Experience gained during the war has shown how important a part is played by wireless work in the Navy.

Rapid developments are in progress in this branch and should be closely watched.

**22.** It is very desirable that Canada should become independent of outside assistance in the work of minesweeping. The simplest, and by far the cheapest, method of obtaining in war the services of efficient minesweeping vessels is by the encouragement of a trawler fishery service on both the Pacific and Atlantic Coasts during peace. Steam trawlers are already operating on both coasts, and have proved to be commercially successful. This matter is of such importance on economic grounds that I beg to draw special attention to it.

23. In all cases the fullest weight has been given to the necessity for general economy, and only the *least* requirements consistent with the maintenance of sufficient forces to meet the naval situation have been suggested.

24. Finally, I wish to tender my grateful thanks to Your Excellency, to the Prime Minister, the Minister of the Naval Service, Marine and Fisheries, and the other members of the Canadian Government, and to the Deputy Minister of the Naval Service, the Director of the Naval Service and the Assistant Director, for the assistance which has at all times been so freely afforded to my staff and myself during our visit. The ready help we have received on all sides has much furthered the work of the Mission.

I am also much indebted to the Department of the Naval Service and to the various local authorities and harbour boards for the assistance rendered on all occasions and I shall be obliged if my deep appreciation of the great courtesy we have received throughout the Dominion may be conveyed to all.

I have the honour to be,

Sir,

Your Excellency's most Obedient Servant,

JELlicoe

Admiral of the Fleet.

His Excellency

The Duke of Devonshire,

K.G., P.C., G.C.M.G., G.C.V.O.,

Governor-General and Commander-in-Chief,

The Dominion of Canada.

## CHAPTER I.

### The Naval Requirements of Canada.

1. The late war has once again demonstrated the dependence of the British Empire on the safety of its sea communications. Sea Power has saved the Empire as on many occasions before, but in this case it has also saved the cause of the Allies and of Civilization. General recognition of this fact will surely lead to the maintenance of British sea supremacy in the future. A navy of very considerable strength is still required for this purpose, although the menace of our late enemies has ceased to exist.

2. War experience has shown very clearly the immense capabilities for the destruction of, or interference with, sea communications, given by modern weapons. Our late enemies used many of these weapons illegitimately, but even if measures are found in the future to prevent such means of naval warfare, it is still possible to cause great havoc to trade without infringing the tenets of international law:

3. Canada has sea communications both in the east and in the west, and, excluding trade with America either by the Great Lakes or by the open seas, the value of her overseas trade in 1913-14, which is the last year unaffected by the war, reached the total of £112,000,000. The trade with America has been omitted, since some considerable proportion of it could be carried on during war in territorial waters in comparative safety. Canada's merchant tonnage in 1916 consisted of 8,660 vessels of 942,598 net tons; of which 4,202 vessels of 491,181 net tons were steamers. About two-thirds of them were employed in ocean and coastal trade, and one third on the Great Lakes. In 1917, 184 vessels of 28,638 net tons were built in Canada.

On the 30th November, 1919, the number of vessels on the Canadian Register was 8,631, with a gross tonnage of 1,469,176. The vessels built, building and ordered under contract for the Canadian Government consist of 60 ships of 359,945 tons (of which 23 are already completed).

Out of the total of 101 steel and wood merchant steam vessels under construction in Canada on the 30th September, 1919, 78 vessels of 156,790 tons, are intended for seaborne trade, and 23 vessels of 53,833 tons for the Great Lakes.

It will thus be seen that Canada has great interests on the ocean, for which in war naval protection would be necessary.

4. The question of the naval forces required by Canada may be viewed in two ways: first in the light of Canada's own requirements and Canada's own safety; and secondly in the broader light of the security and safety of the Empire as a whole. The naval force suggested as adequate purely for the protection of Canada's trade and Canada's ports *under the conditions assumed* comprises:—

- 3 Light Cruisers
- 1 Flotilla Leader
- 12 Torpedo Craft
- 8 Submarines with
- 1 Parent Ship

and certain auxiliary small craft for training purposes etc.

5. If the question of the co-operation of Canada is looked upon in the wider sense of participating with the United Kingdom and the other Dominions in the naval defence of the whole Empire, it naturally assumes much larger proportions. The question is of course one for decision by Canada, and if Canada desires to consider the proportion of the total cost of Empire naval defence which might under such conditions reasonably be incurred by the Dominion, the cost of the naval forces

considered necessary for the adequate defence of the Empire and its sea communications as a whole must be known. I have no official information on this point, but it seems probable that, owing to the greatly increased cost of labour and materials, and to the increased rates of pay of the officers and men of the navy, there is little, if any, likelihood of the British naval estimates falling much below the sum of £55,000,000, whilst the annual cost of the Royal Australian Navy, even if only maintained at its present strength, will be over £2,000,000. In 1914 the British naval estimates were slightly less than £50,000,000, and the Australian expenditure on the Navy a fraction below £2,000,000. These were the highest figures reached in pre-war days.

It is not unreasonable to anticipate that Australia will add to her naval effort in the future, and that New Zealand will shortly acquire naval forces. It will be within recollection that in 1909 New Zealand contributed one battle cruiser to the British Navy at a cost of some £2,000,000, and that in 1912 the Malay States gave a battleship of the first class—H.M.S. "Malaya"—at the cost of about £2,500,000.

6. The population of the United Kingdom in 1914 was 46,000,000.

The value of the oversea trade of the United Kingdom for the same year was £1,540,000,000 which is equivalent to £33 9s. 6d. per head of population.

If the naval estimates of the United Kingdom in the near future amount to an annual sum of £55,000,000, it will be equivalent to £1 4s. per head of population.

By spending £1 4s. per head on the navy to protect oversea trade, of the value of £33 9s. 6d. per head, the United Kingdom is virtually paying an insurance premium at the rate of approximately 3.6%.

7. It may be of interest to indicate the naval forces of the greatest assistance to the Empire which could be provided for certain figures.

The tables at the end of this chapter have accordingly been drawn up to show the fleet which it is thought would be most valuable to the Empire if the naval estimates of Canada eventually reached totals approximating to £5,000,000 per annum, £3,500,000 per annum, £2,000,000 per annum, or less than £1,000,000 per annum, and these tables may be of use to the Government in deciding the question now or in the future.

8. In the cases of the three higher figures approximate estimates are given for a term of years during which the fleet shown might be brought into being. This term in the case of the £2,000,000 estimate covers a period until 1927, and in the case of the £5,000,000 and £3,500,000 estimates a period until 1929. The period can of course be shortened if desired, by increasing the annual expenditure in the earlier years.

The cost of the new vessels is included and the total varies year by year until finality is reached, when new construction ceases (except as required for replacement of obsolete vessels) and the annual cost thereafter remains at the specific figure quoted. Replacement of obsolete vessels is provided for by a sum set apart for depreciation which is included under "Maintenance".

In the case of the two higher estimates the *total* commitment is arrived at by superposing the estimate concerned on to the £2,000,000 estimate, as it is *additional* to that estimate, and the figure £5,000,000 is arrived at by adding the sum £3,162,450 for maintenance of the ships shown, to the sum £1,739,500 for the maintenance of the £2,000,000 fleet. Similarly for the £3,500,000 estimate.

In each case, local defence and defence of trade in the vicinity of the coast is first provided for. In the case of the two higher estimates, real help is also afforded to Empire naval defence as a whole.

9. In the case of the estimate of £2,000,000 per annum, defence of Canada's trade in the Pacific is given in addition, but there is little naval force which can be used offensively; in other words whilst Canada would be protecting her own interests *defensively* it would fall to the lot of the United Kingdom, with the assistance of the other Dominions, to endeavour to take such action as would be necessary to bring war to a conclusion.

10. The figures in the tables give the annual cost of *maintenance* as well as the first cost of construction of such of the vessels as are not a gift from the British Government. The vessels included in the two lower estimates, except the light cruisers

and the submarine parent ship, are assumed to be a *gift*. Once the ships are in existence, the sum included under the heading "maintenance", will cover their replacement when obsolete. This sum represents in effect the annual depreciation of the ships as well as the expenditure on fuel, repairs, etc., and is based on the assumption that they will remain efficient for a certain definite period. This period is taken to be as follows:—

Type of Ship.	Initial Cost.	Effective life.
	(£)	(Years)
Battle Cruiser.....	4,000,000	15
Light Cruiser.....	500,000	15
Flotilla Leader.....	200,000	12
Destroyer.....	160,000	12
"P" Boat.....		15
Submarine.....	150,000	15
Depot or Parent Ship.....	200,000	25
Submarine Parent Ship.....	200,000	25
Fleet Minesweeper.....	70,000	20
Aircraft Carrier.....	200,000	25

**11.** If Canada decides at any period to co-operate in the general naval needs of the Empire in the sense mentioned in paragraph 5, it may be convenient to possess a basis on which to build up her fleet. The basis suggested under these conditions is a fleet-unit which, it is considered that war experience has shown, should comprise, in the case of Canada:—

- 1 Battle Cruiser.
- 2 Light Cruisers.
- 6 Destroyers.
- 4 Submarines.
- 2 Fleet Minesweepers.

The units require certain auxiliary vessels in the following proportion.—

- For every 18 destroyers.—1 Depot Ship.
- " 9 destroyers.—1 Flotilla Leader.
- " 8 Submarines.—1 Depot Ship.
- " Unit.—1 Aircraft Carrier.

This basis has been used in the alternative estimates given in the tables.

**12.** Air work for the navy is of exceeding importance, and as time goes on this importance will increase. Any naval unit, to be complete, must, in the future, possess its proper complement of aircraft for the different purposes required. The cooperation of aircraft with naval forces will be of great and increasing value, and aerial operations will influence naval tactics and strategy.

Canada has formed an Air Board to control aerial matters, and from the naval point of view it is most necessary that the full weight of naval requirements should be put before this Board. It is considered desirable for the Royal Canadian Navy to be strongly represented thereon, in order that due weight may be given to naval air matters.

**13.** Air proposals in this connection will be based on the operational requirements for a Royal Canadian Navy.

#### THE VALUE OF SURFACE SHIPS IN MODERN WARFARE.

**14.** The introduction of a large number of scientific devices, and the rapid advances in efficiency made by so many of the weapons in use during the recent war, renders it particularly desirable to investigate the present value of surface ships, and to consider the probabilities of their use in the future.

The subject is treated under two headings, viz.:—

- (a) Capital Ships.
- (b) Other Men-of-war.

(a) *Capital Ships.*—

The evolution in the past fifty years of the capital, or line-of-battle, ship of the present day is the result of the struggle which has been in progress between.—

- (a) The gun and the ship,
- (b) The torpedo and the ship,
- (c) The mine and the ship, and, more recently,
- (d) Aircraft and the ship.

The advent of explosive shell and the increasing power of guns led to the introduction of steel ships with armour, and armoured decks.

The advent of the torpedo led to the successive introduction of:—

- (i) Torpedo nets.
- (ii) Greater internal water-tight subdivision.
- (iii) Internal torpedo bulk-heads.
- (iv) External bulges.

The advent of the mine led to the introduction of paravanes.

The advent of aircraft necessitates the thickening of armoured decks, the carrying of protecting aircraft by ships, and the fitting of high angle firing guns in ships. Further developments in aircraft will necessitate further counter measures.

In each case enthusiastic supporters of the new devices have pronounced the speedy disappearance of the line-of-battleship; but, instead, the line-of-battleship has in each case been altered, and means found to counter the latest danger to its existence.

It is natural to ask—"Why has such trouble been taken to preserve the costly line-of-battleship?" The answer is not far to seek.

Millions of tons of cargo, and in time of war, of men and stores also, are carried in ships, and until some other means of carrying these millions of tons over or under the ocean have actually materialized it is imperative for the British Empire to retain the command of the surface of the sea. This need will continue until, if ever, surface men-of-war lose their *métier*, and are displaced by aircraft or submarines.

The capital ship is the strongest form of engine of war which exists for operating on the seas. Its external bulges, which were invented during the late war, render it immune from torpedo attack until hit (in the case of the newest type now building) by a large number of torpedoes, thus minimizing the effect of each hit obtained by torpedoes fired by surface craft, submarines, or torpedo-carrying aircraft.

The capital ship is also usually protected against torpedo attack by escorting destroyers, and in future will be assisted by various scientific devices, recently invented, which will enable it to carry out defensive or offensive tactical manœuvres against submarines.

Paravanes, which were invented during the late war, form an efficient protection against moored mines of present type.

Thick armoured decks at present protect the vitals of the capital ship from bombs dropped by aircraft, which when dropped from the low heights necessary under present conditions to give much probability of hitting, have but low striking velocities and therefore only small penetrative effect. As the accuracy of bomb attack and the weight of bombs carried increase, modifications will be necessary in the construction of ships.

High angle fire guns assist in keeping attacking aircraft at heights from which hitting by dropped bombs is, *at present*, improbable.

The aircraft carried on board, or in an attendant vessel, serve to protect the capital ship against enemy airships and aeroplanes.

The secondary anti-torpedo-craft guns can establish "barrages" of bursting high explosive shell to protect the ship against attack by small fast surface-craft loaded with explosives and controlled from an independent position. Vessels of this type will, however, only be encountered in sheltered waters and rarely, if ever, on the high sea.

Armour and armoured decks protect the ship against attack by enemy's gunfire.

High speed and great gun power enable the capital ship to bring vessels of less speed, power, or protection successfully to action.

The country whose fast capital ships and their complementary units are not contained or held by similar enemy's ships can, with these vessels, sweep from the seas the enemy's vessels and sea-borne trade carried in surface ships.

The flying and the submarine enthusiasts of today are following in the foot-steps of the explosive shell, the torpedo, and the mine enthusiasts who preceded them; whilst those who recognise the necessity for the capital ship are devising, so far successfully, means to counter each fresh menace to her existence.

It behoves us, therefore, to be cautious in accepting the opinion of specialists in any particular arm in this matter which is so vitally important to the Empire.

In view of the above quoted brief history of the gradual evolution of the great capital ship of the present day, in warding off the perils which successively threatened her existence, and in view of the tremendous rôle played by the capital ship, the wise course to pursue is to continue to build capital ships until, if ever, it is definitely shown that some other weapon has been found which permanently renders them inefficient.

(b) *Other Men-of-War.*

Following the same line of argument, it is necessary to investigate the desirability, or otherwise, of continuing to build light cruisers, destroyers, and other small vessels.

The struggle in progress between the offensive weapons and the defensive arrangements in capital ships has been reflected in the construction of the smaller types of surface vessel to a modified extent owing to less weight being available for such protection.

Light cruisers are necessary for look-out and scouting work for the capital ships, their great speed assisting their escape from these vessels if sighted. Their smaller cost justifies their employment for operations where the use of the capital ship would be both unwise and unnecessary. They are also eminently suitable for the protection of convoys, being superior both in speed and fighting power to any raiders which are likely to be met.

Destroyers are suitable for anti-submarine work, and for screening ships against submarine attack, as well as for offensive action against larger vessels.

Both light cruisers and destroyers form, therefore, an essential part of a fleet, and a fleet not provided with its complementary light craft would be at a very serious disadvantage as compared with one properly equipped. They are also needed for trade protection.

Modern light cruisers are fitted with a form of torpedo protection and all types carry paravanes as protection against mines. They are also provided with thin armour and armoured decks to resist gunfire. In future no doubt the armoured decks will be thickened in order to be better able to withstand bombing attacks by aircraft.

In addition, the smaller draught of these vessels diminishes the chance of their being hit by a torpedo or mine, and their smaller size makes them a more difficult target for torpedo and gunfire and enables them to operate in shallower water than capital ships.

The great speed and handiness of both light cruisers and destroyers as compared with capital ships renders easier evasion of attack by gunfire, torpedoes, or dropped mines, by alteration of course during the passage of the missile or missiles directed at them.

It is therefore necessary to continue the construction of light craft both as a complement to the capital ship and for the other duties enumerated.

TABLE I.  
STATEMENT SHOWING THE STRENGTH OF THE SEPARATE FLEETS UNDER THE DIFFERENT ESTIMATES, WHEN COMPLETED.

5 Million Pound (25 Million Dollar) Fleet.	3½ Million Pound (17½ Million Dollar) Fleet.	2 Million Pound (10 Million Dollar) Fleet.	1 Million Pound (5 Million Dollar) Fleet.
2 Battle Cruisers.	1 Battle Cruiser.	—	—
7 Light Cruisers.	5 Light Cruisers.	3 Light Cruisers.	—
1 Flotilla Leader.	1 Flotilla Leader.	1 Flotilla Leader.	—
12 Destroyers.	6 Destroyers.	—	—
1 Destroyer Parent Ship.	1 Destroyer Parent Ship.	—	—
16 Submarines.	8 Submarines.	8 Submarines.	8 Submarines.
1 Submarine Parent Ship.	1 Submarine Parent Ship.	1 Submarine Parent Ship.	—
2 Aircraft Carriers.	1 Aircraft Carrier.	—	—
4 Fleet Minesweepers.	2 Fleet Minesweepers.	—	—
4 Local Defence Destroyers.	4 Local Defence Destroyers.	4 Local Defence Destroyers.	4 Local Defence Destroyers.
8 " P " Boats.	8 " P " Boats.	8 " P " Boats.	8 " P " Boats.
4 Trawler Minesweepers.	4 Trawler Minesweepers.	4 Trawler Minesweepers.	4 Trawler Minesweepers.

Also provided for:—  
Administration.  
Training Establishments.  
Dockyards.  
Local Defences.  
Fuel Reserves and Storage.  
Wireless.  
Naval Air Squadron—6 Machine  
6 Other Flying Machines.



TABLE II.

ADDITIONAL CHARGES TO BE SUPERPOSED ON THE £2,000,000 PROGRAMME—RESULTING IN ANNUAL ESTIMATES OF ABOUT £5,000,000 AT THE END OF THE EIGHTH YEAR—WHEN THE FLEET IS COMPLETELY FORMED.

N.C.—*Cost of New Construction.*

M.—*Maintenance*—including Depreciation charges to allow for replacement due to age, etc.

		1921-22 £	1922-23 £	1923-24 £	1924-25 £	1925-26 £	1926-27 £	1927-28 £	1928-29 £	1929-30 £
2 Battle Cruisers (1 in 1921, 1 in 1925)	N.C. M	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,370,000
Light Cruisers (1 laid down each year from 1925 to 1928)	N.C. M					500,000	500,000	500,000	500,000	327,500
							(1)	(1 Full Comm.; 1 Reserve.)	(1 Full 2 Reserve.)	
T.B.D.'s	N.C.	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	
The sum taken allows for the completion of one T.B.D. and the advancement of a second every year.	M		67,600 (1)	202,800 (3)	279,400 (4)	405,600 (6)	439,400 (6 Full Comm. 1 Reserve.)	507,000 (6 Full, 3 Res.)	540,800 (6 Full, 4 Res.)	549,250
T.B.D. Parent Ship	N.C. M		100,000	100,000	92,500	92,500	92,500	92,500	92,500	92,500
Submarines (Lay down 1 per annum)	N.C. M	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	199,200
			33,200 (1)	66,400 (2)	99,600 (3)	132,800 (4)	149,400 (4 Full, 1 Res.)	166,000 (4 Full, 2 Res.)	182,600 (4 Full, 3 Res.)	
Extending Dockyards And Training Establishments	N.C. M	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	
4 Fleet Minesweepers (1 each year for 1st four years)	N.C. M	70,000	70,000	70,000	70,000	70,000				
			6,000 (1)	12,000 (2)	18,000 (3)	24,000 (4)	24,000	24,000	24,000	24,000
Aircraft Carriers—1 in 1921, 1 in 1927	N.C. M	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	400,000
Totals	N.C. M	1,760,000	1,866,800	1,860,000	1,560,000	1,990,000	1,960,000	2,190,000	2,190,000	3,162,450
			106,800	481,200	680,500	1,539,900	1,801,300	1,991,000	2,146,900	
Grand Total		1,760,000	1,966,800	2,141,200	2,240,500	3,529,900	3,791,300	4,181,000	4,336,900	3,162,450

TABLE III.

ADDITIONAL CHARGES TO BE SUPERPOSED ON THE £2,000,000 PROGRAMME—RESULTING IN ESTIMATES OF ABOUT 3½ MILLION POUNDS AT THE END OF THE EIGHTH YEAR, WHEN FLEET IS COMPLETELY FORMED.

N.C.—*New Construction.*

M.—*Maintenance*—including Depreciation charges for replacement due to age, etc.

		1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30
		£	£	£	£	£	£	£	£	£
1 Battle Cruiser.....	N.C. M.					1,000,000	1,000,000	1,000,000	1,000,000	685,000
Light Cruisers—1 in 1921. 1 in 1923.....	N.C. M.	250,000	250,000	250,000 105,650 (1 Reserve)	250,000 105,650	211,300 (2 Reserve)	211,300	211,300	211,300	211,300
6 T.B.D.'s (Lay down 1½ each year for 1st four years).....	N.C. M.	240,000	240,000 67,600 (1)	240,000 202,800 (3)	240,000 270,400 (4)	405,600 (6)	405,600	405,600	405,600	405,600
1 T.B.D. Parent Ship.....	N.C. M.			100,000	100,000	92,500	92,500	92,500	92,500	92,500
2 Fleet Mine-sweepers.....	N.C. M.	70,000	70,000 6,000 (1)	12,000 (2)	12,000	12,000	12,000	12,000	12,000	12,000
Extending Dockyards and Training Establishment.....	N.C. M.	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	
1 Aircraft Carrier.....	N.C. M.							200,000	200,000	200,000
Total.....	N.C. M.	610,000	610,000 73,600	640,000 329,450	640,000 388,050	1,050,000 721,400	1,050,000 721,400	1,250,000 721,400	1,250,000 721,400	1,606,400
Grand Total.....		610,000	683,600	960,450	1,028,050	1,771,400	1,771,400	1,971,400	1,971,400	1,606,400

TABLE V.

## MINIMUM ESTIMATE.

One million pounds.  
(Five million dollars.)

Item.	First Cost.	Annual Maintenance.
	£.	£.
8 Submarines.....		300,000
4 Local Defence T.B.D's—2 Full, 2 Reserve.....		120,000
8 "P" Boats—2 Full, 2 Reserve, 4 Special Reserve.....		87,500
Specialist training (passages of officers and men to United Kingdom for such training).....		25,000
Boys Training Establishments.....		100,000
Local Defences and Reserve.....	250,000	50,000
4 Trawler Minesweepers and training.....		12,000
College (reduced numbers).....	75,000	20,000
Administration.....		20,000
Dockyards.....		150,000
Fuel Reserve and Storage.....		20,000
Total.....	£ 325,000	£ 804,500

SUGGE

N.C.—N  
M. —M

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1 Light Cruis

---

Lay down 1 I

---

Lay down 1 I

---

Lay down 1

---

4 T.B.D.'s L<sub>2</sub>  
2 Full C  
2 Reserv

---

8 "P" Bonts.  
2 Full C  
2 Reserv  
4 Spec. I

---

"Ithuriel" (E)

---

8 Submarine  
4 Full C  
4 Reserv

---

1 Submarine

---

Training Est

---

Naval Fixed

W. Coast  
E. Coast

---

Dockyards .

---

Administrati

---

Cadets' Coll

---

2 Boys' Trai

---

4 Trawler N

---

Fuel Reserv

---

Wireless . . .

---

Air Squads

---

6 Other typ

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\*NOTE.—

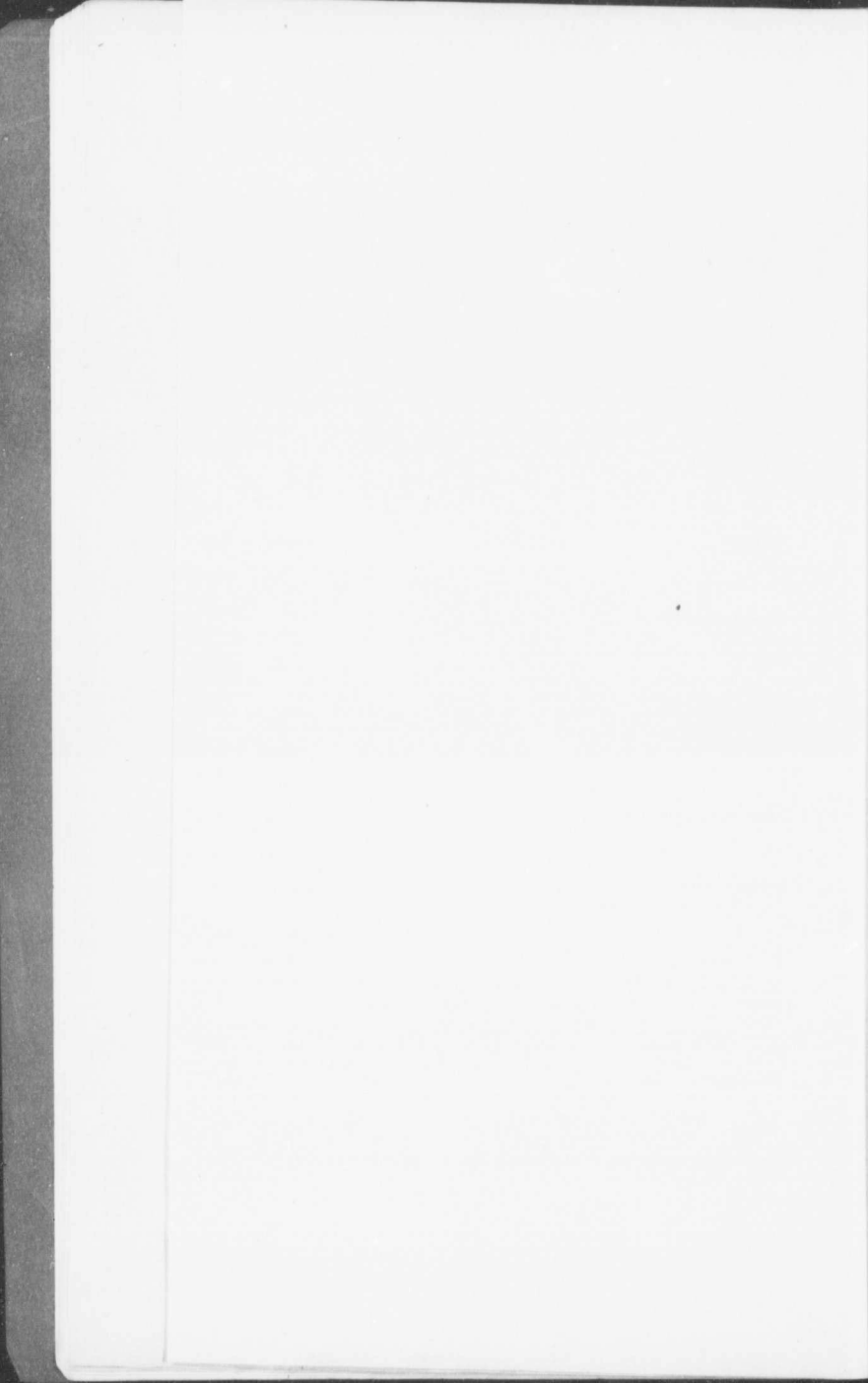
TABLE IV.  
SUGGESTED DETAILS OF APPROXIMATE ANNUAL NAVAL EXPENDITURE FOR CANADA—ON THE BASIS OF WORKING UP TO ANNUAL ESTIMATES  
OF ABOUT £2,000,000 (\$10,000,000 AT \$5-£1).

N.C.—New Construction.

M. —Maintenance—including Depreciation charges for replacement due to age, etc.

Item.	Armament.	—	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28
			£	£	£	£	£	£	£	£
1 Light Cruiser "Bristol" Class* .....	2-6" guns 10-4" guns.....	N.C. M.	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Lay down 1 Light Cruiser—1920.....	6" guns.....	N.C. M.	100,000	250,000	150,000	200,000	200,000	200,000	200,000	200,000
Lay down 1 Light Cruiser—1922.....	6" guns.....	N.C. M.			100,000	250,000	150,000	200,000	200,000	200,000
Lay down 1 Light Cruiser—1924.....	6" guns.....	N.C. M.					100,000	250,000	150,000	200,000
4 T.B.D.'s Local Defences..... 2 Full Comm. 2 Reserve.	3-4" guns.....	N.C. M.	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
8 "P" Boats..... 2 Full Comm. 2 Reserve. 4 Spec. Res.	1-4" gun.....	N.C. M.	87,500	87,500	87,500	87,500	87,500	87,500	87,500	87,500
"Iturial" (Reserve).....	4-4" guns & 4- 21" T. Tubes.	N.C. M.	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
8 Submarines..... 4 Full Comm. 4 Reserve.		N.C. M.	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
1 Submarine Parent Ship.....	2 Guns.....	N.C. M.	50,000	100,000	150,000	60,000	60,000	60,000	60,000	60,000
Training Establishment.....		N.C. M.		80,000	80,000	80,000	20,000	20,000	20,000	20,000
Naval Fixed Local Defences, Minesweeping and Reserves.....		N.C. M.	20,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
W. Coast.....		N.C.	10,000	50,000	50,000	50,000	40,000	50,000		
E. Coast.....		N.C.			50,000	50,000	50,000			
Dockyards.....		N.C. M.	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Administration.....		N.C. M.	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Cadets' College.....		N.C. M.	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
2 Boys' Training Establishments.....		N.C. M.	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
4 Trawler Minesweepers.....	1-12 pdr. gun	N.C. M.	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Fuel Reserve and Storage.....		N.C. M.	10,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
		N.C. M.	160,000 999,500	530,000 1,059,500	630,000 1,059,500	430,000 1,319,500	340,000 1,339,500	250,000 1,539,500	150,000 1,539,500	1,739,500
Total.....			1,159,500	1,589,500	1,689,500	1,749,500	1,679,500	1,789,500	1,689,500	1,739,500
Wireless.....		N.C. M.		100,000	200,000	200,000	60,000	60,000	60,000	60,000
Air Squadron—6 Machines (including Armament).....		N.C. M.		55,000	20,000	20,000	20,000	20,000	20,000	20,000
6 Other type Flying Machines.....		N.C. M.		200,000	50,000	50,000	50,000	50,000	50,000	50,000
Total (Air).....		N.C. M.		255,000	70,000	70,000	70,000	70,000	70,000	70,000

\*NOTE.—After 1926 the "Bristol"—being then over 15 years old—might be used as a seagoing training ship.



## CHAPTER II.

### Administration.

In considering the question of naval administration it is impossible to omit mention of the immense advantages that result from keeping the Naval Service outside the region of party politics.

The organization under which the Royal Navy is administered by a Board of Admiralty has stood the test of time and has indeed been followed in its general principles in the present organization of the British War Office.

Recent war experience has also shewn that the main basis of Admiralty organization is sound, although modifications in the conduct of Admiralty business were introduced during the war. These modifications were principally in the direction of separating the conduct of operations from the business of administration and supply; and whilst being in that respect a return towards the system in vogue in the Napoleonic Wars, were designed to avoid the objections which became apparent in that system.

2. The Admiralty Board organization is based on certain principles which may be summed up as follows:—

- a. The pre-eminence of final civil control by Parliament. This parliamentary control is, in practice, usually confined to matters of policy and finance. Parliamentary interference in the details of naval administration is, as a rule, to be deprecated.
- b. The responsibility of the First Lord to Parliament.
- c. The presence on the Board of naval officers of high reputation and possessing sea experience, in whom the service afloat shall have full confidence. This is absolutely essential to the discipline and well-being of the officers and men of the Service.
- d. The allocation by the First Lord to each member of the Board of certain definite duties for the control of which they are responsible to the Board as a whole.
- e. Members of the Board being colleagues, one of another, possess equal power and responsibility. The First Lord holds a position of "Primus inter pares."
- f. The authority of two Members of the Board is required before any order can legally be given.

3. Paragraph 10 of the Naval Service of Canada Act reads:—

"The Governor in Council may appoint a Naval Board to advise the Minister on all matters relating to naval affairs which are referred to the Board by the Minister."

"2. The composition, procedure, and powers of the Board shall be as prescribed."

The success of the Board system for naval administration having been thoroughly demonstrated by experience, it is recommended that a Canadian Navy Board should be formed, which, subject to the control of the Minister, would be charged with the administration of all matters relating to the Royal Canadian Navy. Under such conditions the Board would act as a whole, its orders being issued over the signature of the Secretary of the Board. The Board system already exists in Canada in the Militia Council, though possibly not in the exact form proposed above.

4. In any Board system, composed partly of civilians and partly of naval officers representing the expert naval opinion, success must depend (especially under war conditions) on the extent to which technical matters are left to the experts, while parliamentary control is maintained by the Minister. The administration proposed above would place the Royal Canadian Navy under the final control of civil authority as is the case with the Royal Navy. The Minister would be responsible to Parliament, and he can accept or reject any of the proposals made to him by the naval members of the Board. A wise interpretation by the Minister of his powers and functions, and the degree to which he shall fall in with his expert colleagues on technical questions is necessary for the success of the system.

At the British Admiralty at home, difficulty has occasionally arisen when the Minister is at variance with the views of his naval colleagues on technical questions. It is inevitable that differences of opinion should arise, and no legislation can prevent this.

If the matter is considered by the Sea Lords of the Admiralty to be one of vital importance to naval efficiency, and their views are disregarded, their only course is resignation. This course has never as yet been adopted by the Sea Lords as a whole, although on occasions naval members of the Board have intimated that they will find it necessary to resign if a certain course is persisted in.

When matters come to such a pass it appears desirable that the Prime Minister should be made acquainted with all the facts; in the case of Canada, where a new naval organization is under consideration, it is suggested that the Chief of the Naval Staff should in such circumstances be empowered to present to the Prime Minister a statement of the case as seen by the Naval Members of the Board.

5. The strength of the Canadian Naval Board must necessarily be dependent on the size of the Canadian Naval Force, but whatever the size the *principle* of the organization should be the same. The Board should be composed of naval and civilian members, the Minister, or in his absence, the Chief of the Naval Staff, acting as president of the Board, as at the British Admiralty. In the case of a very small naval force one naval member might suffice, but if Canada possesses a force composed of light cruisers, submarines, and torpedo craft, two naval members are required, and the composition of the suggested Board is:—

*The Minister.*—General direction of all business; questions of policy; finance.

*First Naval Member and Chief of the Naval Staff.*—War preparation, the fighting efficiency of the fleet, movements of ships, and matters which come under the heading of "operations."

*Second Naval Member.*—In charge of personnel, training, and discipline. Also construction and engineering questions, dockyard management, stores, etc.

*A Civil and Finance Member.*—In charge of works and finance. It may be considered desirable that he should be a Member of Parliament in order to ensure close touch being maintained between Parliament and the Navy Board in financial matters, and in other questions which may arise, such as those referring to labour, etc.

6. There should also be a Secretary, who is not a member of the Board. For at any rate the first few years, until the Department has gained experience, it is most desirable that the Secretary to the Navy Board should be a naval officer of considerable secretarial experience. The duties of the Secretary have been drawn up on this assumption. It is also very desirable that the Minister should have an executive naval officer as his Naval Assistant. In view of the changes in naval thought which are the outcome of war experience, there is obvious advantage in the presence on the Board and in the Department, of officers who have served afloat during the war.

7. It is suggested that the First Naval Member and Chief of the Naval Staff should be a flag officer, or a post-captain who has been given the rank of commodore 1st class. The Second Naval Member should be a post-captain. The Naval Assistant to the Minister should be an executive officer of not less than commander's rank.

8. It is recommended that the services of a naval officer of the military branch with war experience should be obtained as liaison officer at the Admiralty. As the work would not occupy the whole time of an officer it would be economical if all the Dominions were represented by one officer. On matters of detail the liaison officer should be empowered to communicate direct with the Canadian Naval Board. It is essential, that he should visit Canada before taking up the work.

9. It would add to the authority of the Canadian Navy Board, and would be a sign of that authority, if, by the sanction of the Home Government, some distinguishing flag were granted corresponding to that of the Board of Admiralty; the flag should be flown only when the Navy Board is represented in a port or on board a ship by two members, one of whom must be a naval member of executive rank. It is suggested that this flag should be saluted with 19 guns, as the Militia Council is saluted with this number.



10. The present organization for the administration of the Canadian Naval Service is shown in diagram A. In the light of the experience of the war it is recommended that this should be modified so as to be controlled by a Naval Board constituted as described above. The proposals in detail are shown graphically in diagram B. It will be seen that it is proposed that the present departments of the Chief Hydrographer and the Superintendent of Tidal Surveys should be included amongst those which are directly under the *Chief of the Naval Staff*. If possible, these two departments should be amalgamated, as is the case at the Admiralty. The General Superintendent of Radio Telegraphs is shown under the new and more appropriate title of General Superintendent of W/T Service working under the Chief of the Naval Staff as regards naval wireless and under the Civil Member as regards commercial wireless.

The Fishery Protection Service has been transferred to work under the General Staff Officer (O), who, amongst other subjects, deals with trade matters and should therefore naturally also deal with fishery protection. It is assumed that if a Canadian navy is formed this work will be carried out by Canadian men-of-war.

Under the *Second Naval Member* are grouped three materiel departments, one personnel department, and one medical officer.

A necessary post is that of Director of Ordnance, Torpedoes and Mines. He should be an experienced executive gunnery officer of commander's rank. His department should include gunnery, torpedo and mining specialists, an inspection branch, and an ordnance store branch.

The Medical Officer will at first require only a few assistants for the examination of medical accounts, keeping registers, etc. He should advise on all medical questions. The senior medical officer of the naval hospital might well perform these duties until the Canadian Naval Service is considerably expanded.

Separate Superintendents of Naval Engineering and of Naval Construction are shown. It is recommended that the former should be a naval engineer officer of commander's rank, and the latter a constructor from the Royal Corps of Naval Constructors.

The Superintendent of Personnel should be an executive officer of commander's rank.

Under the *Civil and Finance Member*, who is also responsible for Works, the Superintendent of Accounts, and the Superintendent of Life-saving would work. It is recommended, for reasons given below, that the Department of the Superintendent of Fisheries should be transferred to the Ministry of Marine. It would be advantageous if life-saving work were transferred to some other department of government as being a matter distinct from the Naval Service. If it is retained, it is best placed under the Civil and Finance Member of the Board, as indicated in diagram B.

11. The general staff officers are shown as the heads of two divisions, working under the Chief of the Naval Staff for assisting with the naval staff work divided up as shown. The duties of one of these divisions, it will be seen from diagram B, include Trade and Fishery Protection. The reasons for this provision are as follows:—The great experience gained in England during the four years of war in regard to the control of the Navy, the Merchant Service, and the Fishery Service, led to the following final arrangements:—

A *Mercantile Movements Division* of the Admiralty Naval Staff controlled the sailings and routes of all merchant ships, working in the closest touch with a *Ministry of Shipping*, where the fullest information was collected by shipping experts with regard to cargoes, berthing space at ports, etc. Ships were allocated to the various ports at which their cargoes could be quickly handled, stored, or distributed.

A *Convoy Section* of the Mercantile Movements Division organized and directed all convoys.

A *Trade Division* of the Admiralty Naval Staff arranged for the arming and war equipment of merchant ships and the training of the masters, officers, and men in naval warfare, and issued detailed war instructions to them.

The construction of merchant ships was eventually carried out by a *Director General of Merchant Shipbuilding*, who worked in close conjunction with the Board of Admiralty.

*Troop Transports*.—It is understood that for a certain period of the war the Troop Transport arrangements were in military hands in Canada, but in view of the fact that

the control of all British shipping in war must either be in the hands of the Admiralty or of Shipping Controllers working in close touch with the Admiralty, it is necessary that Troop Transport arrangements should be in the same hands. The same argument applies to Canada.

*Fisheries.*—As the war progressed, the areas in which fishing was reasonably safe became more and more restricted, and even in the clear areas protection to the fishing craft was necessary. At the same time there was a strong feeling that the fishermen who had not joined the auxiliary forces were making unduly large profits. The whole question was solved by the Admiralty Naval Staff taking control of the fisheries, organizing the fleets, directing fishermen as to the localities in which to fish, and providing protection.

**12.** As a result of the experience of the war, it is suggested that while the greatest freedom should be allowed to sea-borne trade and fishing in time of peace, an advisory organization should exist to guide trade in channels most beneficial to the whole country's development. This organization would probably in war-time become mandatory instead of advisory, and would appear to be the most suitable organization for the direction of shipping by mercantile experts in conjunction with the Naval Staff.

**13.** It is also very desirable that the personnel of the mercantile marine should be sufficiently trained in naval warfare in time of peace to enable it to co-operate with the Navy in time of war.

Close touch with the Navy may also stimulate recruiting among the seafaring and fishing population, who would thereby more clearly understand what service in the Reserve implies.

At present the very small Canadian Navy, the Mercantile Marine and the Fisheries are controlled by one Minister. This single responsibility undoubtedly simplifies collaboration between the seafaring professions. On the other hand, it is suggested that with the growth of both the Royal Canadian Navy and the Canadian Mercantile Marine, it will not be possible for one Minister to carry out both duties. More particularly will this be the case during the process of building up a naval organization. So much will depend upon the start given to a Royal Canadian Navy that it is of very real importance that the Minister should be able to give his undivided attention to naval affairs. He will need to be in very frequent consultation with the naval members of the Board, as well as with the departmental officers. It is therefore strongly urged that the Minister for Naval Affairs should hold that office alone, a separate Minister controlling Marine and Fisheries.

Arrangements can and should be made for a close understanding between the ship-owning community and the Naval Staff and an elementary knowledge of naval warfare as regards conduct of merchant ships in war might be included in the syllabus for the examinations for mates' and for masters' certificates.

**14.** As regards fisheries, development and the institution of modern methods are desired by all, and the Naval Staff should endeavour to assist such development along lines which will tend to produce vessels as suitable to naval war purposes as is possible without interference with their legitimate occupations.

**15.** Summarised, the conclusions are that:—

(a) It is very desirable that there should be a Minister for the Navy responsible only for that service.

(b) In this event, it is suggested that all other seafaring affairs should be conducted by another Minister with perhaps the title of "The Minister of Marine and Fisheries."

(c) It is proposed that a shipping committee comprising representatives of ship-owners, fishery firms, the Marine Department, and the Naval Staff, should meet periodically to consider questions of general development of marine resources. Their functions would be purely advisory in peace, but in war they would take control of shipping, their Chairman acting as Shipping Controller.

(d) A member or branch of the Naval Staff should be concerned with trade and fishery questions and the war training and the constructional work involved.

Asst. Director  
of Naval Service.

The Canadian  
Navy Board.

Fishery  
Protective  
Services.

NOTE 1.—Those

DIAGRAM "A"

PRESENT ORGANIZATION.  
(No Navy Board.)

The Minister of Naval Service and of  
Marine and Fisheries.)

The Deputy Minister of Naval Service.

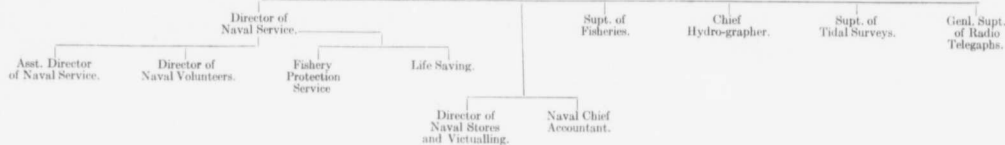
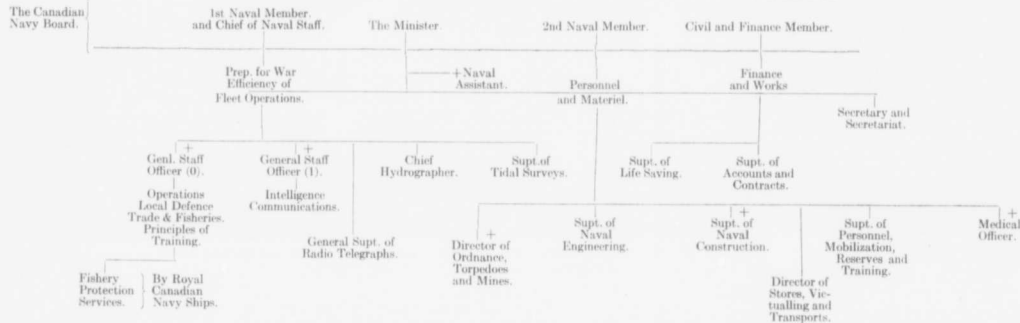


DIAGRAM "B"

SUGGESTED ORGANIZATION OF THE CANADIAN NAVY BOARD AND THE NAVAL STAFF AND THE DEPARTMENTS.



NOTE 1.—Those with crosses are the only extra head officials.

NOTE 2.—The D. of O. T. & M. to advise the C.N.S. on the principles of G. T. & M. training and the principles governing the use of the G. T. & M. materiel. The Department to include G. T. & M. specialists, an Inspection Branch and also an Ordnance Store Branch.

NOTE 3.—The Air Board should be asked to lend an Air officer with experience of Naval Air Work to the Canadian Navy Board to advise the 1st Naval Member on Air matters and to act as Liaison Officer.

NOTE 4.—The General Superintendent of Radio Telegraphy will work under the C.N.S. as regard naval wireless and under the Civil Member as regard commercial wireless.

NOTE 5.—Since diagram A. was drawn up an Assistant Deputy Minister has been appointed.



(e) On the outbreak of war, in addition to the Shipping Committee possessing the same powers and functions as the Ministry of Shipping in England during the late war, the naval staff branch referred to in (d) should carry out the duties of the Mercantile Movements Division.

In this way organisations already existing would be in a position to take up their war time duties without difficulty or loss of time.

(f) Arrangements concerning the strengthening of the hulls to take defensive armament in merchant ships and fishing vessels would be dealt with by this Shipping Committee, requisitions being made to the Director of Naval Ordnance for the armament for which approval was obtained.

(g) It is desirable that a knowledge of naval warfare should form part of the qualifications of Merchant Service officers for a certificate.

(h) Designs of fishing craft should be encouraged along lines tending to efficient auxiliary vessels for naval use in war time, so far as is consistent with their ordinary work.

The distribution of Board business recommended is shown at the end of this chapter.

**16.** In organising the duties of the various departments of the Canadian Naval Administration it will be advisable to obtain from the Admiralty a complete statement showing the organisation and distribution of business for all Admiralty departments. This should be of value in making the corresponding arrangements for the Canadian Navy Office.

**17.** *Communications between the Canadian Naval Board and the Admiralty in London.*

The essential points in war, in connection with communication between the Admiralty and the Naval Board, or *vice versa*, are:—

1. Secrecy;
2. Rapidity;

and these two essentials can be obtained in the surest manner by direct communication. Such direct communication is, therefore, absolutely necessary in all questions connected with operations or with intelligence.

In some cases questions of policy, also, may be of such urgency as to need direct communication, but such cases would probably also come under the heading of operations. Unless under very exceptional conditions, questions of policy should pass through the usual official channels.

It is, therefore, recommended that in both peace and war the policy which has been maintained in the past, should be continued in the future; that is to say, that there should be direct communication between the Navy Department and the Admiralty on all matters, except important questions of policy which should pass through the usual official channels.

In order to keep His Excellency the Governor-General acquainted with the general naval situation and matters of policy, information, if not otherwise provided for, should be given to His Excellency by the Naval Assistant to the Minister, unless given by the First Naval Member. This would follow the custom obtaining in England.

## THE NAVAL BOARD OF CANADA.

## SUGGESTED DISTRIBUTION OF BUSINESS.

*The Minister.*—General direction of all business.

*First Naval Member and Chief of Naval Staff.*—Operations of war and all staff business.

*Second Naval Member.*—Personnel and Matériel.

*Civil and Finance Member.*—Supply and priority of labour and materials, works and contracts, finance.

*Secretary to the Naval Board.*—To be responsible for, and to carry out such administrative details as may be necessary to give effect to the decisions or recommendations of the Board; and to be in general charge of the clerical side of its work.

*The Minister.*—

General direction and supervision of all business relating to the Navy. Political and Board questions.

Scheme of Navy Office organization and distribution of work.

Promotion and removal from the service of Naval Officers. Honours and rewards.

Appointment of officers of Flag rank.

Appointment of and entry of Naval Chaplains.

Civil appointments and promotions.

*First Naval Member and Chief of Naval Staff.*—

All large questions of naval policy and maritime warfare. Organization, distribution, fighting, and seagoing efficiency of the Fleet, and its readiness for war.

Detailed organization and general direction of the work of the Naval Staff.

General direction of operations of war.

Consideration of strategic policy and plans relating to such operations.

Advice as to appointments of officers of flag rank.

Appointment of officers in command.

The principles guiding the educational and technical training of the officers and men of the fleet.

Questions as to dates of refits and repairs to ships when these may effect contemplated major operations and movements (in conjunction with the Second Naval member).

Air questions which affect naval warfare.

Transport and trade questions, only as affecting major operations and movements; there should be a complete list kept by the War Staff of merchant shipping of all classes in Canadian waters which could be of use in war.

Convoying and escorting of merchant vessels, shipping movements as affecting convoy arrangements.

Questions of policy affecting defensive arming of merchant ships and Fishing Craft.

Routes for merchant vessels.

Minesweeping.

Operations and movements of Auxiliary Patrol (and aircraft for working therewith), and all vessels employed in convoy and escort work.

Fishery protection.

Questions relating to Foreign Stations and overseas operations. Letters of proceedings received from the Commodore Commanding; and other officers of the R.C.N.

Questions affecting shore defences and co-operation with Military and Air Services.

Naval Intelligence—its collection and utilization for naval operations; and superintendence of Naval Intelligence Division.

Fleet communications, wireless telegraphy policy, cyphers, and codes.

Training of the Navy in Combatant and Staff Duties.

The First Naval Member as Chief of the Naval Staff is responsible to the Minister for the issue of orders to the Fleet affecting war operations and the movement of ships, which orders may be issued in his own name, in his capacity of Chief of the Naval Staff.

The responsibility for these orders would not be a Board responsibility unless the question at issue is referred to the Board. Unless operation orders result from Board decision, the responsibility for their issue would lie with the Chief of Naval Staff and the Minister.

In the absence of the Chief of the Naval Staff, the responsibility for operations falls automatically on the Second Naval Member, who must necessarily be in close and constant communication with the Chief of the Naval Staff.

As the Minister is ultimately responsible to Parliament, it is necessary that he should be kept advised of important operational matters by the Chief of Naval Staff, or any other officer acting for the latter in his absence.

*Second Naval Member.—*

*Personnel.*

Manning (\*) of the Fleet; training of the Fleet, in accordance with principles approved by the Board; administrative arrangements connected with barracks, training and educational establishments. Defensively-armed merchant ships; training of personnel.

Complements.

Mobilization and other regulations for the personnel; and superintendence of Mobilization Department.

Service and appointments of officers of all branches, including auxiliary vessels (except as reserved to the Minister and the First Naval Member).

Naval Cadetships and nominations to Paymaster Cadetships R.C.N.

Reserve forces.

Hospitals.

Discipline.

Superintendence of the office dealing with Auxiliary Vessels.

Full-pay and half-pay; allowances and compensations, including table-money, prize questions, pilotage and surveying pay, and all extra payments, debts of officers and men, naval pensions, widows' pensions; character, conduct, and badge questions; naval savings bank if instituted.

Medals. Uniform regulations.

Naval Detention Quarters and Naval Prisons. Deserters.

Collisions between H. M. Canadian Ships and private vessels, etc.

*Materiel.—*

Provision (so as to meet Board requirements) of materiel for the Fleet, including ships and their machinery, armour, guns, and gun-mountings, torpedoes, mines, etc., and their respective appliances and stores, also docking facilities.

Design, manufacture, inspection, repair, and maintenance of, and alteration and addition to, such materiel.

A complete list should be kept of all commercial yards in the Dominion and their capabilities, both for construction and for repair of ships.

Order of priority of work upon ships and materiel for naval service, including both new construction and repairs and alteration, on general lines laid down by the Board.

*NOTE.—*(\*) Manning means recruiting the numbers authorized by Parliament.

*NOTE.—*1. He should keep in close touch with the First Naval Member in order that he may be able to take his place at any time if required.

*NOTE.—*2. If a pension system is adopted papers relating to naval pensions (officers) are to be marked to the Minister as well as to the Second Naval Member.



Selection of vessels for service as Armed Merchant Cruisers, or for fleet purposes, in accordance with Board requirements; alteration and preparation of vessels for such service, and subsequent maintenance and reconditioning.

Inventions relating to ships and other materiel, as above, questions as to their suitability and applicability to the Naval Service.

Superintendence of naval construction and engineering work, dockyards, and ship-building, armament production, torpedoes, mines, and other explosives stores, naval equipment, electrical engineering, and compasses.

Superintendence of ordnance and torpedo store services. Issue of ordnance, torpedo, mining, etc., stores.

Administration of the dockyards, including labour questions and the provision of dockyard clerks (except as dealt with by Civil and Finance Member).

All questions relating to the Transport Service, including hired auxiliary vessels for the supply services, except as under First Naval Member. (Passages.)

Superintendence of Naval Store, Fleet Coaling, Medical, Store, and Victualling Services.

General salvage money questions and money demands for salvage of naval stores.

Naval Staff of Establishments—all questions relating to (except as reserved to Minister and First Naval Member.)

*Civil and Finance Member.*—

Works and buildings, including purchases of land and materials, sites, and leases. Provision of storage for mining, torpedo, and other stores, as required by Second Naval Member.

Purchase of matériel and stores for Navy Office Services and all contract business relating thereto.

Superintendence of the Contract Department.

*NOTE.*—While the Civil Member would be responsible for the superintendence of the Navy Office contract business generally, he should keep in close touch with the Second Naval Member on all important contract matters affecting production of material for which the Second Naval Member is responsible.

Commercial Wireless business.

Negotiation in trade disputes.

Finance, Estimates, Expenditure, and Accounts, and proposals for new and unusual expenditure generally.

*NOTE.*—Pay, allowances and pensions of officers and men are dealt with by Second Naval Member.

Sale of ships and stores.

Dockyard expense accounts.

Payment for hire of ships.

Charitable funds, compassionate allowances, subscriptions, etc., and allowances to ministers of religion, and grant in aid of churches and schools.

Auditor General's Department—questions connected with.

Civil Staff of Establishments (except as reserved to Minister), including classification, appointment, promotion, pay, allowances, and pensions.

*Secretary.*

General Office organization.

Discipline of the clerical staff of the various Navy Office Departments.

Navy Office procedure.

Recommendations for appointments and promotions of the civil staff in the Navy Office.

Correspondence.

*NOTE.*—Routine papers, as defined below, should be disposed of by the Secretary:

(a) Such papers as require intermediate action or reference to render them sufficiently complete for decision by the Board.

(b) Such as do not involve some new principle, establish a precedent, or occasion expense not provided for under existing regulations.

(c) Such as do not involve any point of discipline, or affect the movements of or orders to a ship.

## NOTES:—

1. It should be understood that in any matter of great importance the Chief of Naval Staff should always be consulted by the other members of the Board and by the Secretary, but each member of the Board would communicate direct with the Minister.

2. The proceedings of Courts-Martial should come specially under the review of the Second Naval Member, and should be marked to other members of the Board as necessary.

3. All commissions for naval officers should be signed by two members of the Naval Board before being submitted for signature to the Governor-General.

*Board Business.*

The Minister would decide the business that shall come before the Board as a whole, but if a member of the Board desired to have any matter brought forward, he would refer it to the Minister for entry on the Agenda.

It is to be remembered, however, that the object of the Board Meetings is to ensure, as far as possible, that not only all large questions of naval policy, but also all matters of general interest, especially those having an important bearing on the traditions, privileges, and well-being of the Royal Canadian Navy, come before the Board as a whole. Members of the Board should, therefore, regard it as a matter of duty to propose all such questions for entry on the Agenda, such duty resting primarily on the member within whose sphere the question comes; but, in case of his omission to do so, on any member of the Board, after giving notice to the former of his intention.

To assist members of the Board in this duty, a weekly list of the more important questions initiated within the Department, or from the Fleet, or from other Departments will be circulated. A list of the more important day to day decisions given by members of the Board will also be circulated weekly, and these will be brought up at the meetings of the Board.

The following matters should always be brought before the Board:—

Navy Estimates. The Estimates should be signed by all the Members of the Board before presentation to Parliament.

Shipbuilding Programmes.

Designs for new ships and alterations in weights of ships.

Alterations in the general regulations, and all important orders of a legislative character.

All Naval Officers; dismissals or discharges; retirement when unfit for or unworthy of further employment; resignations, restoration and refusal of restoration; decision as to non-employment; alterations in dates of birth.

The following should be referred by the respective superintending members to the Minister for entry on the Agenda of the Board:—

Questions having an important bearing upon Fleet numbers; the numbers of recruits to be raised in a given time; or the general conditions in regard to pay or service of the personnel of the Navy.

Important proposals for the provisions of new matériel and questions having an important bearing upon the progress of work on matériel for the Naval Service, including repair work.

Important proposals for the adoption of new types or descriptions of ordnance or other stores, and questions having an important bearing upon the supply or storage of the necessary quantities of ordnance, coal, oil, and other essential stores.

Any questions of large new works, or questions having an important bearing upon the progress of large works already approved.

The Board will also be provided with the necessary periodical statistical statements in regard to:—

(a) Manning.

(b) Progress of warship construction, naval aircraft supply, and other important matériel and works.

(c) Requirements and available stocks of guns, gun mountings, ammunition, mines, torpedoes, coal, oil, and other essential stores,

and such other returns as are from time to time found necessary in order to keep in touch with the state of the Navy, in regard to Maintenance Services.

## CHAPTER III

### Personnel.

It is of great importance that the Royal Canadian Navy and the Royal Navy should hold themselves in the very closest relationship. The ships should be of similar types, the personnel actuated by the same motives, trained on the same lines, imbued with the same traditions, governed by a practically common discipline and aiming at the same high standard of efficiency.

2. Whilst in war the general plan of campaign must necessarily be directed from one central authority, it may still be desirable to depute local authority to carry out part of the plan, especially that part dealing with operations in far distant waters, on account of the delays involved in communicating intelligence and instructions. This will necessitate an efficient staff organisation at Dominion Headquarters. Intelligent co-operation in this respect can only be acquired by uniform principles of command and staff work, and a common understanding of tactical and strategic requirements. For this reason it is desirable that Canadian Staff Officers should receive their training at the Naval Staff College at Greenwich in conjunction with officers of the Royal Navy and the other Dominions.

An important factor in the establishment of a Royal Canadian Navy will be its efficient representation on the Admiralty Naval Staff, the strength of such representation bearing a relation to the size of the Service represented.

3. During the late war the great majority of the officers in Dominion ships were either Royal Naval Officers, or had been trained in the Royal Navy, and this fact made co-operation easy. It is essential that future co-operation should be as close, and this can best be obtained by the adoption of a common system of training and a uniform line of thought, and by frequent opportunities being given for the Naval Forces of the Empire as a whole to work together. Unless this can be brought about their efficiency when co-operating will be lessened.

Canada will naturally desire that, when a Royal Canadian Navy comes into being, it shall be of first rate efficiency whatever its size. Given ships of equal strength and size, the best handled, best drilled and best disciplined ship will win. This entails first rate personnel and first rate materiel.

4. For some years to come the larger portion of the officers and men of the Royal Canadian Navy must necessarily be lent from the Royal Navy, and as their replacement by officers and men entered and trained in Canada, takes place gradually, the old spirit of discipline and efficiency should be carried on without a break.

The war has abundantly proved the value, and in fact the absolute necessity, of what may be termed "Fleet Experience." By Fleet Experience is meant the experience gained by Flag and Commanding Officers of all types of vessels in the handling of the squadrons and ships composing a large fleet, by day and night, under all conditions of weather. Fleet Experience is also of the utmost value to the various specialist officers, such as those connected with gunnery, torpedo, navigation, signal and W/T and submarine work, in addition to which it affords opportunity for exercising and training the staff in the issue of operation orders.

5. In setting up the Royal Naval College in 1911, and commencing the entry and training of officers on similar lines to those obtaining in England, Canada prepared a sound foundation for the provision of executive officers for a future navy. The value of such a step is apparent when it is realised that by this means Canada has trained 25 Lieutenants, ranging in seniority up to 2½ years, 15 Sub-Lieutenants and 12 Midshipmen, whilst in addition there are 46 Cadets under training. There are also 5 Engineer Lieutenants entered in Canada by direct entry. In May 1914, owing to the scheme prepared in 1910 for the formation of the Royal Canadian Navy not having been proceeded with, negotiations were opened with the Admiralty for the transfer of the officers and midshipmen to the Royal Navy, the Canadian Navy undertaking to supplement their pay on the lines arranged for the Royal Canadian Navy, the officers promising to volunteer whenever required for service in a Canadian

Navy. The Admiralty concurred in these proposals but owing to the outbreak of war they remained in abeyance. All these sea-going officers are, therefore, at present serving in ships of the Royal Navy, but are immediately available for appointment to ships of the Royal Canadian Navy.

The position in regard to officers of the non-military branches is different. No scheme of entry in the Accountant branch exists and the demand for officers for the Medical, Chaplain and Instructor branches which do not require special naval training has been governed by the immediate requirements.

6. No settled policy has been followed in regard to lower deck ratings. The cruisers "Niobe" and "Rainbow" were originally intended to act as sea-going training ships for both seamen and stokers. It was proposed to enter for the year 1910-1911 upwards of 250 seamen, and 350 engineroom and miscellaneous recruits. The period of service was to have been for 7 years from the age of 18, with the option, if recommended, of re-engaging for further periods of 7 years up to a total of 21 years, after completion of which service men were to become eligible for a pension.

The policy outlined above did not, however, mature. Pensioners and Fleet Reserve men were permitted by the Admiralty to enlist in the Royal Canadian Navy, and were entered for a period of five years. These men have all completed their engagements. During the war men were entered for hostilities only. Owing to the present doubt as to the future naval policy, ratings have been entered for one year's service only.

The authorized number of officers and men is at present 500, and this number is complete.

7. The future provision of officers and men will, of course, depend on the naval policy of the Dominion Government. Whilst, therefore, it is not possible to make recommendations in detail, it is considered necessary to make certain recommendations in regard to the principles involved in framing regulations for the personnel of a future Canadian Navy. It is hardly necessary to emphasize the importance of a uniform system of service common to all the navies of the Empire.

#### OFFICERS: ENTRY, TRAINING, APPOINTMENT AND PROMOTION.

8. It is recommended that officers of the military branch should continue to be entered as Cadets in the Royal Naval College of Canada. The regulations governing entry and training up to the rank of Lieutenant should follow closely the lines of those laid down by the Admiralty. It is suggested that the common form of Dominion Commission should be adopted for the reasons given by the Admiralty after the Imperial Conference of 1911. Until suitable training establishments are in existence in Canada, it is suggested that officers should be sent to England to undergo their necessary courses in gunnery, torpedo, etc. A certain number of officers should be selected to specialize in gunnery, torpedo, navigation, engineering, signals, and wireless telegraphy, and other specialist branches that may be developed in the future. It is most important that the standard of qualifications in the various branches of the service should be the same as that for the Royal Navy.

The requirements of Imperial Naval Defence demand a uniform system of staff training throughout the navies of the Empire, and it is essential, therefore, that suitable officers should be selected to undergo training at the Naval Staff College at Greenwich.

The question of the entry and training of Engineer officers is one which requires further consideration. The course recommended is that which has been adopted by the Admiralty after many years of deliberation, and which has recently been revised (Appendix X., Addenda 1918, King's Regulations and Admiralty Instructions), namely a common entry to the Royal Naval Colleges of Osborne and Dartmouth, and specialization at certain periods of service. If this method fails to produce a sufficient number of volunteers for Engineering duties, the only alternative will be to adopt the direct entry method, and to send the officers to Keyham College, Devonport, for training.

9. It has been recommended above that the scheme of entry and training for officers of the military branch up to the rank of Lieutenant should follow closely a uniform system common to the Royal Navy, and if possible, common to the navies of the Empire. On this subject there can be little ground for controversy. It is when officers have completed their various courses and have launched out into the service that the important question arises of the best method of promoting their efficiency by providing them with first rate experience. Where the service to which the officers belong is of sufficient proportions to allow of their gaining the experience necessary to

fit them for the higher command, the matter is in the hands of the officers themselves; but in the case of a small navy, from the very nature of things, it is not so easy for an officer to maintain efficiency, and impossible for him to gain full experience.

It is essential, therefore, both for efficiency and for the future of the officers themselves, that means be found for providing officers of a small navy with opportunities for gaining full experience.

**10.** The most certain method of obtaining this would be by placing all officers of the military branch of all the navies of the Empire *on one General list*, from which they would be promoted to the ranks of Commander and Captain by selection, as is the case in the Royal Navy to-day. Under this arrangement officers of each Dominion Navy of the Empire would serve a proportion of their time in ships of the Royal Navy, thus standardizing their ideas, and gaining such experience as can only be obtained in a large fleet. At the same time officers of the Royal Navy would serve a proportion of their time in the various Dominion Navies, thus gaining that wider knowledge of the Empire which is so necessary in the scheme of Imperial Naval Defence.

The arguments in favour of a General List are that:—

(a). It will ensure a uniform high level of knowledge, ability, and efficiency.

(b). It will give equal chances of advancement, or, in other words, it will ensure that the most able officers produced by the Empire have access to the most important posts.

(c). It will facilitate the question of promotion in the higher ranks.

Some of the arguments which may be advanced against a General List are:—

(d). Possible Dominion dislike of the idea.

(e). Inequality of pay of the different navies.

**11.** The establishment of a General List would involve certain procedure in regard to promotion and appointments.

The promotion of officers on a General list would necessarily be made by the Board of Admiralty on their records of service, recommendations being forwarded from the Dominions in a manner similar to that now done by the respective Commanders-in-Chief on foreign stations. The establishment of the various ranks in the general list would need to be fixed from time to time by the Admiralty in conjunction with the Dominion Navy Boards.

It is essential that the percentage of promotions obtained in Dominion ships should equal that of the fleets and establishments of the Royal Navy, always provided of course that the standard of efficiency is kept at a similar level.

The appointment of Flag Officers and Captains would be made by the Admiralty, and those of Commanders and officers of junior rank by the respective Navy Boards in consultation with the Admiralty.

A necessary attribute to the scheme of a General list would be a close liaison between the Admiralty and the respective Navy Boards.

**12.** In reviewing the arguments for and against the scheme of a General List, it is considered that the balance is largely in its favour.

Alternatives to the scheme of a General List are:—

(i) To make the list of officers common *after* the rank of Lieutenant Commander or Commander is obtained.

This would no doubt lessen the objections that may be raised and would be fairly satisfactory.

(ii) To retain separate lists for each Dominion, and at the same time to endeavour to give Dominion officers experience in large fleets by means of a liberal system of interchange with the Royal Navy.

The principal difficulty in regard to such an interchange is that of obtaining suitable officers from the Royal Navy to take the place of the Dominion officers. If all officers were on one list, the most suitable could be detailed by name, whereas a separate list would entail calling for volunteers. Once this method obtains, it places the list open to those officers who may either be finding life too strenuous in the Royal Navy and hope for quieter times, or who see no prospect of advancement in the Royal Navy.

Knowing this, suitable officers might hesitate to send in their names fearing that the authorities might attribute to them similar motives.

It is of course essential that officers of the Royal Navy serving in a Dominion Navy should be assured of equal prospects, treatment and consideration, as those to which they have been accustomed in their own service.

*Qualifications for Promotion Under a Separate List.—*

**13.** If separate lists are retained it is considered that certain qualifications for promotion should be laid down in order to ensure a uniform level of ability in the higher ranks of the Navies of the Empire. The following are recommended:—

(a) Qualifications for specialist Lieutenants—Lieutenants who apply to qualify specially in gunnery, torpedo, signals or for submarines, and are recommended by their commanding officers and selected, should be required to complete one year's service as watch-keeping officer in a vessel of the Royal Navy.

(b) To render Lieutenant Commanders, except specialists, as above, eligible for promotion, they should be required to serve for two years in a vessel of the Royal Navy in the alternative rank of Lieutenant or Lieutenant Commander.

(c) To render Captains eligible for promotion to Flag Rank, they should be required to serve in command of one of H. M. Ships in the Royal Navy for a period of two years.

(d) It is considered essential that the ages and periods of non-employment governing retirement should be the same as those laid down for Officers of the Royal Navy. In this connection it is necessary to emphasize the fact that on promotion to Flag Rank, officers are placed on the retired list, unless they are considered qualified to command a squadron.

*Accountant Officers.—*

**14.** It is recommended that Accountant Officers should be entered under the same regulations as those obtaining in the Royal Navy. Some re-arrangement of the educational examination will be necessary in order to allow for the different curriculum used in Canadian School education.

*Medical Officers.—*

**15.** The question of the provision of officers of the Medical Branch differs from that of other branches in that medical officers receive their professional education before joining the service, and difficulty exists in giving them sufficient opportunity inside the Service of keeping themselves proficient, and for this reason a General List of medical officers is not advisable. In a large Navy this is, to a certain extent, obviated by there being several large naval hospitals, staffed by naval officers; but in a small navy, this will not be the case. A short service scheme appears to be the best possible course under the circumstances, and if senior medical officers cannot be obtained by this method they would have to be obtained from the Royal Navy.

*Chaplains.—*

**16.** There being no established Church of Canada, the question of the appointment of Chaplains is complicated. Accommodation does not admit of the appointment of more than one Chaplain to any ship.

*Naval Instructors.—*

**17.** Naval Instructors should be entered under similar regulations as those obtaining in the Royal Navy.

*Royal Marines.—*

**18.** It is not recommended that a corps of Royal Marines should be established in Canada, as the numbers likely to be required do not warrant the formation of a corps of such small dimensions.

PAY.

**19.** It is understood that a Committee was recently formed to consider the question of the pay of the Royal Canadian Navy, and that the report contains recommendations which will bring the pay of officers up to and above that recently granted in the Royal Navy. It is proposed that the pay of the junior ranks should be considerably higher than that of similar ranks in the Royal Navy, and that of the senior ranks just slightly

higher. These recommendations were based on the conditions of salary obtaining in civil life.

In regard to pensions, it is understood that the Committee recommend a similar scheme to that in force in the Civil Service and Militia of Canada. This entails a pension contribution of 5% of an officer's pay. It is understood that this is the general Canadian policy in regard to pensions, but I venture to suggest that if the scheme of a General List is adopted, then it is only fair to the officers concerned that they should all be paid on a uniform system; i.e. they should receive their pay without deduction, and after certain periods of service they should be entitled to a pension.

In regard to the pay of petty officers and men, it is understood that the Committee recommends a revision of the existing rates on similar lines to that recently granted in the Royal Navy, the daily rate of an able seaman or stoker being based on the wage earned on shore by unskilled labour, namely, about \$2 per diem; the pay of skilled ratings being higher in proportion. In their case, there is no contribution for pension, but allowance is made for providing pensions after 20 years' service.

It is suggested that the recommendation of the Committee in this latter respect should be adopted.

#### PETTY OFFICERS AND MEN: PERIODS OF SERVICE.

**20.** It is recommended that all Continuous Service ratings should be entered for long service, preferably for 12 years from the age of 18. If it is found, however, in actual experience, that insufficient numbers are forthcoming under such conditions, the alternative must be adopted of instituting a mixed Long and Short Service system. In this event, it will be desirable that the Long Service entry should remain at 12 years, (the Petty Officer class and seaman ratings, highly trained in gunnery, torpedo and other specialist work, being obtained from those entering for this period), and that the Short Service period should be fixed at 5 or 7 years. Partial Long Service is considered essential in order first to obtain sufficient numbers of experienced men for the higher ratings of the Navy, secondly to ensure that it is worth while for men to undergo courses to qualify them for the higher ratings, and thirdly generally to put training and discipline on a sound footing.

**21.** Every effort should be made to obtain and maintain a high standard of efficiency amongst petty officers. Sufficient inducement should be offered in the way of special accommodation and extra privileges. Much can be accomplished to the same end by tact, consideration and support on the part of the officers. No trouble should be spared in their training, for, unless they are efficient and well disciplined, the Service as a whole will suffer, and no effort on the part of the officers can compensate for a deficiency in this respect.

In this connection it is recommended that courses of instruction for young petty officers should be instituted at one of the training establishments or depots, where, amongst other subjects, lectures on the duties of petty officers, their control of men, and the meaning and value of discipline, should be given. Courses of instruction for young Non-commissioned Officers have been, for some time, instituted in the Army and Royal Marines in England with excellent results. It is recommended that all petty officers, both seamen and stoker branches, should go through the course suggested on first being rated. By this means it is believed that pre-stige and distinction will be added to the rating of petty officer, and the general standard of efficiency of the Service raised to a higher level.

#### *Seamen Ratings: Entry and Training —*

**22.** The regulations governing the entry, training and advancement of men of the Seaman Class of the Royal Canadian Navy should follow closely the lines of those issued by the Admiralty. The age of entry for boys should be between 15 and 16½. Provided sufficient numbers of boys between these ages can be obtained, it is unnecessary to contemplate the entry of youths, but should the situation demand it, those entered should be trained separately from the boys, and their training should be both stricter and more concentrated.

#### *Engine Room Ratings: Entry and Training —*

**23. Artificers:** Candidates for the rating of engineroom artificer should be entered as boys, under similar regulations to those in force in the Royal Navy.

*Stokers:* Stokers should be entered between the ages of 16 and 18. It is very desirable that men should enter the Service as young as the nature of their work admits, in order to accustom them from an early age to disciplined life at sea. With this object in view, it is recommended that when none but oil-burning vessels are included in the Royal Canadian Navy, the age of entry should be reduced to between 15 and 17 years.

The regulations governing the training and advancement of the Engine Room Branch should be identical with those of the Royal Navy. Until a Mechanical Training Establishment capable of giving the courses of training required by the regulations, exists in Canada, an agreement should be entered into with the Admiralty whereby the establishments in England should be used for the purpose.

*Ordnance Artificers, etc.—*

**24.** Candidates for the ratings of ordnance artificer, electrical artificer, and white-head artificer should be entered as above, in the same manner as engine room artificers.

**25.** *Artisans:* Shipwrights, blacksmiths, plumbers, joiners, carpenters, etc., should be entered by the system of direct entry, after having completed their apprenticeship on shore.

*Recruiting—*

**26.** Special attention should be paid to the organization of the Naval Recruiting Service in opening the entry to the Naval Service. In order to assist in obtaining the numbers required, it would be of great assistance to the recruiting authorities if provision were made for carrying on naval propaganda work amongst the population of Canada. Films dealing with naval subjects, naval pictures or the exhibition of naval weapons and war relics would undoubtedly assist largely in educating and interesting the public in regard to naval matters. The assistance of the very efficient Navy Leagues of the Dominion should also be invited to this end.

*Naval Reserves—*

**27.** An Order in Council dated the 18th May, 1914, authorized the establishment of a Royal Naval Canadian Volunteer Reserve. The organization never fully took shape, as the war intervened while it was in progress, but a large number of officers and men entered for the period of hostilities. In addition, a large number of gentlemen from civil life joined the Royal Naval Volunteer Reserve in England, and these officers and men performed services of great value to the Empire, both in Canadian and European waters, gaining thereby valuable naval experience.

It will be necessary now, as a result of war experience, to consider the question of a reorganization of the arrangements drawn up in 1914. In this connection the following points are set out for consideration:—

(a) In order to bring the Naval Reserve Forces in Canada into line with the Naval Reserves of other Dominions it is recommended that its title should be changed to that of the *Royal Canadian Naval Reserve*.

(b) This force should comprise officers and men of the Canadian Mercantile Marine (including the Fisheries), and officers and men volunteers from civil life, in Canada. Officers holding mate's or master's certificates should have the letter (S) or other suitable distinction, denoting seagoing qualifications, placed after their names in the seniority list.

(c) The uniform of the Royal Canadian Naval Reserve should be similar to that of the Royal Naval Reserve with this important exception, namely, that officers who do not hold seagoing certificates, as described in Para. (b), should be distinguished by the distinctive stripe of gold lace worn round the sleeve of the coat, consisting of one waved line of three-eighths gold lace, instead of the two waved lines superimposed, as described in the R.N.R. regulations.

It is very desirable that the organization of the Naval Reserve should be brought up-to-date in every particular, and that the services of those who volunteered for naval service during the late war, and also of officers and men of the Canadian Mercantile Marine, and notably those of the new Canadian Government Steamship Line, should be utilized to the fullest extent. Every encouragement should be afforded them to keep proficient and up-to-date in naval progress.



**28.** The duties for which Naval Reserves would be required in any future war into which Canada may be drawn would be as follows:—

*Sea Service—*

(a) To provide the necessary naval additions to the complements of armed merchant escort ships and other vessels used on convoy duties, these requirements including specialist ratings such as gunlayers, seaman gunners, rangetakers, ordnance artificers, signalmen and telegraphists.

(b) To provide important numbers of gun's crews, signalmen and telegraphists for auxiliary patrol vessels and mine-sweepers.

(c) To provide important numbers of gun's crews for defensively armed merchant vessels.

(d) To provide the personnel of the mine-sweeping service.

(e) To provide the personnel of the mining service in connection with the defence of harbours.

*Shore Service.*

(f) To provide signal and look-out men to man the war signal stations, signal and reporting stations.

(g) To provide telegraphists for the shore wireless telegraph stations.

**29.** The training of Naval Reserves should be so organized, as to allow of their undertaking the duties mentioned above, and the training should be undertaken at the nearest Naval training establishment. The seagoing training should be given, when accommodation permits, in seagoing ships of the Royal Canadian Navy, and every effort should be made to make the training attractive. It should be clearly laid down that the men are afloat for training purposes, and they should be employed mainly in training-classes. A regular return of their employment during their period of training afloat should be rendered to the Navy Department.

**30.** Now that the Dominion has definitely launched out on a Canadian Mercantile Marine Service, the question of instituting a training establishment in Canada for the training of officers for the Service on the lines of the "Worcester" and "Conway" might be seriously considered.

The Government in this event might desire to obtain the support of the leading Canadian Shipping Companies:

If the Government were to support such an establishment, it could justly claim that officers so trained should join the Royal Canadian Naval Reserve.

## CHAPTER IV.

### Discipline.

The question of discipline has already been remarked on in the covering letter. The subject is, however, of such importance that four separate essays marked A, B, C, and D, written by experienced officers of different ranks on this subject are appended. They treat of the subject from many different standpoints.

2. The following recommendations are made on the general subject in the hope that they will be found useful in a young service:—

(a) *Lectures on discipline and its value* should be given to—

- (i.) Petty officers in the depot.
- (ii.) Boys in the training ship.
- (iii.) Stokers in the training ship.

(b) Officers, and particularly the officers of divisions, must be taught that their first duty is the well-being of those under them. To this end they must take a great interest in the men's work and recreations, and get to *know* those under their orders. Kindness and courtesy should always be shown without familiarity or loss of respect being engendered. Men should be able to feel that the officer of their division is one to whom they can always appeal when in difficulty.

(c) Officers must thoroughly realize that the more efficient they are at their work the easier it is to command their men.

They should not spare themselves, and it should be a proved fact that they never call on a man to perform any duty which they cannot do themselves. (This cannot in many cases apply to technical craftsmen.)

(d) The attention of officers should be called to the necessity of not flaunting their advantages over the men. As an example in this direction, it is sometimes thoughtless for large numbers of officers to go on shore as soon as a ship anchors and long before any liberty men can land. Judgment should be exercised in these matters.

(e) Senior officers should not, as a rule, correct individual men for mistakes made but should call the attention of the officer or petty officer in charge of the work to the mistake, in order that the latter may have it corrected.

(f) Officers and petty officers should be taught to give words of command smartly. Slovenly methods of giving orders will never produce good results and smartness.

(g) Officers should be most carefully instructed in the best methods of investigating the cases of men brought up before them charged with various offences.

They must thoroughly understand that the "accused" is not an offender unless the charge is proved against him.

They must exercise patience and restraint in dealing with all cases brought before them, constantly bearing in mind the fact that it must be clear to every one that they are certain of obtaining justice.

The old service custom by which accused men take off their caps during the investigation of their cases is out of date, being now generally considered to be a humiliation to which a man who is under trial should not be subjected. I have recommended to the Admiralty that it should be discontinued.

(h) All officers must set an example to their men by showing the greatest courtesy and respect towards their superior officers and consideration towards their juniors.

Disparaging remarks made in a mess concerning those in authority, whether officers or petty officers, are most subversive to discipline, and soon become known all over a ship.

(i) Having deputed an officer or man to carry out a task, he should, if circumstances admit, be given the opportunity of completing the work, as the act of taking it out of his hands is a humiliation which will give pain, particularly if undeserved.

Here, again, judgment must be exercised, as many cases arise in which for efficiency's sake it is best to interfere. The above remarks must, however, be constantly borne in mind. Self-restraint will often need to be exercised in carrying them into effect.

(j) Men should be taught correct deportment by drill.

3. Rifle exercises have an excellent result in this direction when properly carried out. These consist of—

- (i.) Disciplinary rifle exercises.
- (ii.) Rifle exercises having a direct military purpose.

The distinction between these and the reason for each should be carefully explained to the men.

Men must be taught that when called to "Attention" they must rigidly maintain this attitude, and failure to do so should be regarded as an offence; they should, however, never be kept at "Attention" for longer periods than are necessary, as it then becomes impossible to maintain the correct attitude.

Officers in charge of instruction should drill their men before turning this duty over to an instructor. The officer should aim at being able to demonstrate that he can drill them better than the instructor.

4. Life on board ship brings people into very close contact, if not into collision, and every one must bear in mind the necessity for exercising tolerance towards others and endeavouring to "pull together" for the good of the ship and the Service; at the same time, smartness and efficiency must be the essentials for which every one is working.

5. The promotion of a strong sense of *esprit de corps* in a body of officers and men, whether belonging to a ship or any other unit, will prove to be of great assistance in the maintenance of discipline; consequently this should be aimed at.

Whilst endeavouring to instil a high sense of duty and good discipline in its best form into the personnel, everything possible should be done that will add to the comfort of the ships' companies. Great attention should be paid to the diet, both as regards its composition and the method of its preparation.

6. *Men's living-quarters should also be made as comfortable as possible*, and good facilities provided for reading and writing, amusements, playing games, washing, stowage of kits, etc.

Married men should, whenever possible, be given facilities for seeing their families.

#### A.—REMARKS ON DISCIPLINE.

1. In a consideration of the question of discipline one is, in these days, at once brought face to face with the difficulty presented by the prevailing spirit of the times. This spirit is usually roughly described as "Democracy"; but to a large extent it means a disinclination to accept any form of restraint, and a desire for unrestricted freedom of life and action.

From the point of view of the State this attitude of mind is regrettable and may be dangerous. In the Naval Service such an attitude of indiscipline is quite incompatible either with efficiency in general or with the happiness and well-being of any particular unit.

(a) *That lack of discipline is incompatible with efficiency in war* needs no demonstration; or, if demonstration be required, it can easily be supplied by those who have had experience in handling bodies of men on active service.

(b) *That lack of discipline is dangerous, even in times of peace*, is almost equally obvious. If officers and men are allowed to fall into indolence, if discipline is insensibly relaxed, even the best ships' companies will quickly be reduced to a condition both inefficient and contemptible. And it may be added that unless in peace-time wise and vigorous measures are adopted to maintain discipline, and to prevent men from sinking into indifference and slackness, when war breaks out it will then be too late to remedy the evil—indeed, any attempt to do so would probably cause serious trouble at a moment when it could least be tolerated.

(c) *Furthermore, lack of discipline on board ship leads to unhappiness and discomfort.* In a human society so complex and so crowded together as that of a ship-of-war, friction and misunderstanding are bound to arise where there is any doubt as to who is to command and who obey, or where there is any hesitation or doubt as to the force of orders or their binding nature. Thus it is generally agreed by all ranks that an undisciplined ship is nearly always a discontented and unhappy one.

2. Discipline, then, being essential both in war and peace, both for efficiency and for the general well-being, the question which next presents itself is: *How is discipline to be taught and maintained?*

In approaching this matter it should be remembered that man has not only a body but also a spirit; and that therefore mere bodily or mechanical discipline—the discipline secured by precision of drill and the performance of evolutions—is far from being wholly sufficient. The discipline of the German Forces in the late war was largely of that type, and in their

Navy at least it failed to stand the final test. What is needed is something perhaps less obvious and tangible, but more real and more deeply ingrained—not only the practice of discipline, but still more the habit and spirit of discipline. The question therefore presents itself in this form: *How is the spirit of discipline to be infused and maintained?*

(a) *The infusing of the spirit of discipline* certainly presents a difficult and complicated problem, though perhaps in reality it is not so difficult as would at first sight appear.

(i) *It is rendered easier by entering boys into the Naval Service as young as possible.* The habit and spirit of discipline, and of obedience to orders, are more readily acquired in the early years of life than later on, when the character is more fixed and moulded.

(ii) *In the case of older men it ought to be possible to get them to realize the importance and nobility of duty,* and to make them see that their first duty is discipline. If they can be brought to regard discipline from this point of view, it may well be that they will come to look upon it not as an irksome infliction, but as a necessary part of their profession.

(iii) *The spirit of discipline can further be infused by leading men to take a real pride in the service to which they belong,* and conversely a pride in themselves as belonging to that service. Indeed, pride of service is essential to the true spirit of discipline. These are days when men reason and think for themselves, and it is necessary that they should realize the nobility of their profession and the importance of all that makes for its efficiency.

The spirit of discipline once infused, it is no less important to pay careful attention to its maintenance.

(b) *Discipline will be maintained—*

(i) *By being administered with inflexible firmness, tempered with reason.* A discipline which is sometimes firm and sometimes lax is useless, dangerous, and unfair. If men cannot be induced to be fond of discipline they can at least be brought to respect it as a sacred principle which must not be violated, and a breach of which cannot be tolerated.

(ii) *By strict regard to discipline in minor matters.* Since discipline is a fixed principle underlying all service life, it follows that nothing is too minute for its notice—more specially as negligence in small matters inevitably leads to indifference in matters of greater importance, and too often prepares the way to a complete destruction of discipline.

(iii) *By a spirit of mutual confidence between officers and men.* If this confidence be lacking it will be found that the whole edifice of discipline is built on a foundation of sand.

3. It only remains to point out in general terms the *moral value of the spirit of discipline.* That moral value amounts to this—that discipline rightly directed and understood tends not to dwarf, but to strengthen and elevate, the character.

(a) *It engenders a spirit of calmness in emergency.* The same spirit which keeps a disciplined man at his post when all his comrades have fallen will keep a man brave and cool in the midst of emergency, panic, and disaster. In other words, discipline renders a man more capable of facing the changes and chances of human existence.

(b) *It produces a certain determination and firmness of character.* A disciplined man who has been given a difficult task to accomplish is more likely to carry it through to a successful conclusion than the undisciplined man, who may be turned aside at the first obstacle. The man of discipline has learnt to resist, bear up, hold on, in spite of all difficulties.

(c) *It teaches sentiments of confidence and self-respect—*for, having learnt to obey, he has gone a long way towards learning to command.

In a word, the object and the result of true discipline is to inspire men with bravery, firmness, patience, and with sentiments of honour. A service so disciplined is less expensive to the State, and at the same time it is providing the State with citizens who, on their return to civil life, will be a real strength to the community.

## B.—DISCIPLINE.

"Considering, therefore, the power of the State against which we are marching, and the greatness of the reputation which, according to the event, we shall win or lose for our ancestors and ourselves, remember, as you follow where you may be led, to regard discipline and vigilance as of the first importance, and to obey with alacrity the orders transmitted to you, as nothing contributes so much to the credit and safety of an army as the union of large bodies by a single discipline."—(*Thucydides*, "Peloponnesian War"—Book II, chapter VI.)

1. The Englishman is, on an average, naturally disciplined. He inherits this characteristic, and accustoms himself to it from his earliest days.

Those unaccustomed to control and discipline do not, as a rule, see the necessity for it. To be accustomed to control is, however, necessary in order to obtain discipline. The difficulty of maintaining discipline is increased where those to be subjected to discipline are discontented, or, in other words, think they have cause for complaint.

Life on board ship is and must be subject to strict discipline, and this can be achieved more easily if, in addition to a natural realization of the value of discipline, the conditions of life under which men are made to live are made as smooth and free from cause for just complaint as circumstances permit.

2. It is considered that the following are some of the causes of complaint which may arise against life on board a man-of-war:—

- (i) Living-quarters uncomfortable.
- (ii) General discomfort.
- (iii) Separation of men from their homes.
- (iv) Lack of opportunity for advancement.

Contributing causes to discontent are also—

- (v) Labour unrest.
- (vi) Trades-unions and politics.
- (vii) Reaction after the war.
- (viii) High wages on shore.

3. Some of the causes given above are inherent in ship life, and cannot be altogether eliminated, but it should be possible by arrangement to make them less arduous.

For instance, living-quarters could be made more comfortable, and better facilities provided for washing, stowing kits, reading, playing games, amusements, canteens, barbers' shops, etc. (the U.S. Navy has superior accommodation in some of these respects to that of our modern ships). Married men might be given facilities for having their wives and families quartered in the neighbourhood of their ship's base. Better water-transport arrangements could be provided at the various home ports. The pay should be such as will compensate men, in comparison with their neighbours on shore, for the disadvantages of ship life. Other causes, such as labour unrest, political interference, etc., can be neutralized in time by a strengthened sense of discipline.

In regard to *promotion* from the lower deck, the position is more difficult. It is obvious that the number of officers is strictly limited by the requirements. All officers' service is long service, therefore the wastage is small, and the entry correspondingly so. It must be realized, therefore, that all men cannot enter the Navy with the promise of becoming officers; a percentage only may reach this rank, although all start with equal chances, in the same way that only a percentage of the boys entering as Cadets can hope to reach the higher ranks.

In order to build up discipline on a sure foundation it is necessary to foster the spirit of self-respect and self-control in each individual, to stimulate interest, and to produce mutual trust and confidence between officers, petty officers, and men.

From the date of their first entry, officers and men should be taught to think first of their ship and afterwards of themselves; *esprit de corps* is absolutely essential. Self-control and general control are also necessary attributes. These qualities, can, however, only be developed under conditions of ship life which are as favourable as possible.

Discipline by control, as opposed to discipline by restraint, is that aimed at as being suited to the times, the national temperament, and the advancement in education.

4. Discipline in H.M. ships is chiefly dependent on the quality of the officers, and mostly that of the Captain and Executive Officer. The standard of discipline in any ship varies as a rule with the qualities of these two officers.

This should not be so to the extent to which it is at present. The junior officers and petty officers usually take their cue from the Executive Officer, instead of having a standard of their own *taught from their first entry into the service*. If the Executive Officer disregards an obvious breach of discipline or slackness, those junior to him do the like. If, as is sometimes the case, he corrects the man himself, the man is prone to think his own immediate superior is a nonentity. In most cases it would have been better for the Executive Officer to have corrected the officer or petty officer in charge. The officer or petty officer should be supported in his lawful duty; he should always be corrected if he commits himself, but never, if it can be avoided, publicly before his subordinates.

Discipline, which is control, should start from the bottom, receiving *constant support* from above.

For a senior officer to correct a man for a trivial offence is to lower himself in the eyes of that man; not so, however, for the officer or petty officer in immediate charge—it is his business to do so.

Nothing irritates officers or petty officers more than a senior officer reprimanding or interfering with men working under their immediate command; it takes the control out of their hands which it is essential for them to have. The excuse which most officers would give for doing this is that it is generally quicker (which it is, but nevertheless wrong), or that the officers or petty officers do not know how to do it themselves; it is the duty of the Executive Officer to teach them if they do not know what to do under such circumstances, otherwise he is living on the capital of the service.

It should always be remembered that the best officers are those who possess powers of observation, and, having those powers, *know how to use them*. It is the smart, quick, and, if possible, cheery voice that gets the work well done. Nothing is too trifling to take notice of; for although a small thing may signify but little in itself, it is the accumulation of such, when left unchecked, that goes so quickly to show the want of supervision which spells a slack ship.

#### C.—NOTES ON DISCIPLINE.

Discipline is a subject on which idealists and theorists are fond of writing. It is a subject which throughout all time has presented the greatest difficulties.

At first sight it would appear obvious that the opinions on the subject which should be given most consideration should be those of men who have been able to obtain a high stan-

dard of discipline amongst those serving under them. This view is perfectly correct if due allowance is made for the personalities of the different successful disciplinarians whose views are quoted. It is the difference in their personalities which explains the difference in the methods by which they have each obtained good discipline amongst men of similar temperament and characteristics.

History and literature furnish many instances of men who have made their mark in virtue of a striking personality—whose reputation rests not on any visible tokens, not on kingdoms conquered, institutions founded, books written, or inventions perfected, or anything else that they did, but mainly on what they were. Their merely having passed along a course on earth, and lived and talked and acted with other, has left lasting effects on mankind.

*Discipline is defined in the dictionary as being—Education, development of the faculties by instruction and exercise. Training, whether physical, mental or moral. Training to act in accordance with established rules; acustoming to systematic and regular action; drill. "The most perfect who have their passions in the best discipline, are yet obliged to be constantly on their guard" (Rogers). "The subject-matter of instruction; a course of study; a branch of knowledge" (Bishop Wilkins).*

Amongst many of those who have not closely examined the question there is a disposition to look on discipline as the definition of a treatment of one's subordinates in a manner combining severity with unkindness; in fact, they consider that a disciplinarian is another name for a bully. Many such people, in preaching a doctrine against discipline, proclaim that all men are equal, and that it is contrary to the dignity of a man to belong to a disciplined force.

This teaching does a great deal of harm amongst the uninformed even in ordinary times, and during the present period of very natural reaction since the signing of the Armistice is very materially preventing the peoples of the world from recovering a condition of mental and moral stability.

The great fact which they lose sight of is that in a well-disciplined force the officers as well as the men are disciplined—that is to say, *each officer and man has conquered himself*, and is therefore in a fit condition to subordinate his own wishes and desires in carrying out the orders given to him which, as he knows, are meant to forward the cause for which they stand.

The brutal and unchristian methods of the Prussians, which they were pleased to describe under the heading of *discipline*, are known in England under the names *bullying, unkindness, brutality*.

In this connection the notes on discipline in the attached enclosure should be read.

*The most efficient ships, in which a high standard of discipline (associated with kindness, courtesy, and sympathy) is maintained, are always the happiest. Men-of-war which are really efficient in gunnery and torpedo work, coaling and steaming, boat-pulling and games (proficiency in each of which can only be obtained after much hard work) are probably correct in all essentials, including the mental and moral well-being of officers and men. Without good discipline the above achievements are not within reach.*

There is an old saying, "Without work no happiness." This is entirely borne out in the Navy, as men serving in a smart and *well-ordered* ship are invariably happier than the same men would be if serving in a slack or slovenly ship. In the former case they take pride in their ship, and in themselves, and their discipline. In the latter case they are quite conscious of not fulfilling their mission.

Very briefly, the following are the most essential rules for teaching and maintaining discipline:—

- (1). All officers must be thoroughly disciplined, and must be as efficient as possible, so as to win the respect of their men.
- (2). *Justice* must always be given—infinite pains being taken in hearing defaulters.
- (3). *Unkindness* (including sarcasm, i.e., unkind words) must never be allowed.
- (4). *Courtesy* must always be practised.
- (5). *Reproof must always be impersonal*, for it is administered because the offender has not acted up to the high standard of the Navy.
- (6). Kindness from a superior must never be mistaken for weakness.
- (7). Discipline must be maintained. Nothing is more injurious to discipline than to give way to insubordinate demands or refusals to carry out legitimate orders.

The administration of discipline is perhaps best described in the attached copy of a letter from the famous Admiral Lord St. Vincent to a young Commander (Fane); and, as one of the many proofs that Lord St. Vincent practised what he preached, the following copy of a letter from General the Duke of Richmond to Admiral Lord St. Vincent is attached.

Amongst the thousands of examples of the splendid results of discipline, one of the most famous is that shown in Sir Edward Poynter's painting "Faithful unto Death." This well-known picture represents a Roman guard on duty in one of the palaces during the destruction of Herulanæum, who, although he might perhaps have made his escape, prefers to remain at his post, faithful unto death.

In expansion of the above brief notes on discipline, the following quotations may be of use to those who are anxious to study the department which they should adopt towards others, so as best to practise and maintain discipline:—

*Character.*—It is character that our modern life waits for, to redeem and transform it, and conduct as the fruitage of character.

*Character and Service.*—Never should we forget the close connection between character and service, between inward nobleness and outward philanthropy. We are not here to dream, or even to build up in grace and beauty our individual life; we are responsible, each in our own little way, for trying to leave this sad world happier, this evil world better than we found it. In this way slackness is infamy, and power to the last particle means duty.

What men want is not talent, it is purpose; not the power to achieve, but the will to labour.

*Order is Man's Greatest Need.*—What comfort, what strength, what economy there is in order—material order, intellectual order, moral order. To know where one is going and what one wishes—this is order; to keep one's word and one's engagements—again order; to have every thing ready under one's hand, to be able to dispose of all one's forces, and to have all one's means of whatever kind under command—still order; to discipline one's habit, one's efforts, one's wishes; to organize one's life, to distribute one's time; to take the measure of one's duties and make one's rights respected; to employ one's capital and resources, one's talent and one's chances profitably—all this belongs to and is included in the word "order." Order means light and peace, inward liberty and free command over oneself; order is power. Æsthetic and moral beauty consist, the first in a true conception of order, and the second in submission to it, and in the realization of it, by, in, and around oneself. Order is man's greatest need and his true well-being.

*Sacredness of Work.*—All true work is sacred; in all true work, were it but true hand-labour, there is something of divineness.

Some of the commonest faults of thought and work are those which come from thinking too poorly of our own lives, and of that which must rightly be demanded of us. A high standard of accuracy, a chivalrous loyalty to exact truth, generosity to fellow-workers, indifference to results, distrust of all that is showy, self-discipline and undiscouraged patience through all difficulties—these are among the first and greatest conditions of good work; and they ought never to seem too hard for us if we remember what we owe to the best work of bygone days.

*Judging.*—How often we judge unjustly when we judge harshly. The fret and temper we despise may have its rise in agony of some great unsuspected self-sacrifice or in the endurance of unavowed almost intolerable pain. Whoso judges harshly is sure to judge amiss.

We are all inclined to judge of others as we find them. Our estimate of a character always depends much on the manner in which the character affects our own interests and passions. We find it difficult to think well of those by whom we are thwarted or depressed, and we are ready to admit every excuse for the vices of those who are useful or agreeable to us.

To judge is to see clearly, to care for what is just, and therefore to be impartial—more exactly to be disinterested—more exactly still, to be impersonal.

Perhaps it were better for most of us to complain less of being misunderstood, and to take more care that we do not misunderstand other people. It ought to give us pause at a time to remember that each one has a stock of cut-and-dry judgments on his neighbours, and that the chances are that most of them are quite erroneous. What our neighbour really is we may never know, but we may be pretty certain that he is not what we have imagined, and that many things we have thought of him are quite beside the mark. What he does we have seen, but we have no idea what may have been his thoughts and intentions. The mere surface of his character may be exposed, but of the complexity within we have not the faintest idea. People crammed with self-consciousness and self-conceit are often praised as humble, while shy and reserved people are judged to be proud. Some whose whole life is one subtle studied selfishness get the name of self-sacrifice, and other silent heroic souls are condemned for want of humanity.

*Admit Errors made.*—A man should never be ashamed to say he has been in the wrong, which is but saying, in other words, that he is wiser to-day than he was yesterday.

*Copy of a Letter from Admiral Lord St. Vincent to Commander Fane.*

DEAR FRANCIS,—

Admiralty, 21st May, 1802.

I had not an opportunity to give you a few hints touching your conduct as a Commander, before you left town, which induces me to address them to you in a short letter.

Complacency to your officers is the best principle you can act upon respecting them, taking especial care neither to be familiar with them, nor allowing familiarity on their part towards you; the best means of avoiding these evils is, to observe a certain degree of ceremony upon all occasions, which may be done without imposing restraint on them. To the inferior officers and men your humanity and good sense will naturally induce you to show all manner of kindness consistent with the preservation of good order and due execution of the service. Upon complaint being made of any irregularity, investigate it with temper, and never delegate these investigations to a Lieutenant, much less the infliction of punishment, which never ought to take place but when absolutely necessary, and the strictest decorum observed in the conduct of it; and, whatever your feelings are, nothing like passion ought to appear.

An expensive way of living having crept into the service during the late war, I cannot avoid stating my decided opinion that it has done more injury to the Navy than can be described in a letter. I therefore recommend strongly to you to limit your table to what is decent and proper, equally avoiding profusion and variety, and never to sit long after

dinner. It is almost universally the custom for the Captain to dine with the Lieutenants once a week. I never approved of it; but perhaps it will be difficult for you to decline such an invitation without subjecting yourself to a charge of singularity; and probably the lesser evil will be in complying with the usual practice, taking care not to be drawn into long sittings or familiar discussions. I am sure you will take this sermon in good part, though it has far exceeded the bounds of my intension; and heartily wishing you all manner of prosperity, be assured

I am, &amp;c.,

ST. VINCENT.

*Copy of a Letter from General the Duke of Richmond to Admiral Lord St. Vincent.*

MY DEAR SIR,—

Rammer Camp, near Dorking, 6th August, 1780.

As it is by no means a matter of indifference to me whether my nephew receives the best education possible at sea, or the common one, which is very bad, I must rejoice at his being with you, where he will be made both a seaman and a gentleman. Good sense in education is rarely met with, and unreasonable severity and total neglect are the extremities which are often fallen into than that *just medium* observed on board the "*Foudroyant*"; for *even attention without judgment is of little avail*. From the little I have seen, and the much I have heard, I am convinced that Lord Gerald is a very lucky young man to have been received by you.

I am, &amp;c.,

RICHMOND.

[*Enclosure to Section C.*]

EXTRACTS FROM SOME NOTES ON THE GOOD SIDE OF "MILITARISM."

By an officer who, after serving for six years in pre-war days as an officer in the Royal Artillery, then retired and went to Oxford in order to study theology with the object of eventually taking holy orders. He enlisted in August, 1914, obtained his commission, and was killed in October, 1916.

I had a letter the other day from an Oxford friend. It was in this phrase: "I loathe militarism in all its forms." Somehow it took me back quite suddenly to the days before the war, to ideas that I had almost completely forgotten. I suppose that in those days the great feature of those of us who tried to be "in the forefront of modern thought" was their righteous egotism, their anarchical insistence on the claims of the individual at the expense even of law, order, society, and convention. "Self-realization" we considered the primary duty of every man and woman.

And then I thought of what I had seen only a few days before. First, of battalions of men marching in the darkness, steadily and in step, towards the roar of the guns, destined in the next twelve hours to charge as one man, without hesitation or doubt, through barrages of cruel shell and storms of murderous bullets. Then, the following afternoon, of a handful of men, all that was left of about three battalions after ten hours of fighting, a handful of men exhausted, parched, strained, holding on with grim determination to the last bit of German trench, until they should receive the order to retire. And, lastly, on the days and nights following, of the constant streams of wounded and dead being carried down the trench; of the unceasing search that for three or four days was never fruitless.

Self-realization! How far we have travelled from the ideals of these pre-war days, And as I thought things over I wondered at how faint a response that phrase, "I loathe militarism in all its forms," found in my own mind.

Before the war I too hated "militarism." I despised soldiers as men who had sold their birthright for a mess of pottage. The sight of the guards drilling in Wellington Barracks, moving as one man to the command of their drill instructor, stirred me to bitter mirth. They were not men but manikins. When I first enlisted, and for many months afterwards, the "mummeries of military discipline," the saluting, the meticulous uniformity, the rigid suppression of individual exuberance, chafed and infuriated me. I compared it to a ritualistic religion, a religion of authority only, which depended not on individual assent, but on tradition, for all its sanctions. I loathed "militarism" in all its forms. Now—well, I am inclined to reconsider my judgment. Seeing the end of military discipline has shown me something of its ethical meaning—more than that, of its spiritual meaning.

For, though the part of the "great push" that it fell to my lot to see was not a successful part, it was none the less a triumph—a spiritual triumph. From the accounts of the ordinary war correspondent I think one hardly realizes how great a spiritual triumph it was. For the war correspondent only sees the outside, and can only describe the outside of things. We who are in the Army, who know the men as individuals, who have talked with them, joked with them, censored their letters, worked with them, lived with them, we see below the surface.

The war correspondent sees the faces of the men as they march towards the Valley of the Shadow, sees the steadiness of the eye and mouth, hears the cheery jest. He sees them advance into the Valley without flinching. He sees some of them return, tired, dirty, strained, but still with a quip for the passer-by. He gives us a picture of men without nerves, without sensitiveness, without imagination, schooled to face death as they would face rain or any



trivial incident of everyday life. The "Tommy" of the war correspondent is not a human being, but a lay figure with a gift for repartee, little more than the manikin that we thought him in those far-off days before the war, when we watched him drilling on the barrack-square. We soldiers know better. We know that each one of those men is an individual full of human affections, many of them writing tender letters home every week, each one longing with all his soul for the end of this hateful business of war which divides him from all that he loves best in life. We know that every one of these men has a healthy individual's repugnance to being maimed, and a human shrinking from hurt and from the Valley of the Shadow of Death.

The knowledge of all this does not do away with the even tread of the troops as they pass, the steady eye and mouth, the cheery jest; but it makes these a hundred times more significant. For we know that what these things signify is not a lack of human affection, or weakness, or want of imagination, but something superimposed on these, to which they are wholly subordinated. Over and above the individuality of each man, his personal desires and fears and hopes, there is the corporate personality of the soldier which knows no fear and only one ambition—to defeat the enemy, and so to further the righteous cause for which he is fighting. In each of these men there is that dual personality: the ordinary human ego that hates danger and shrinks from hurt and death, that longs for home, and would welcome the end of war on any terms; and also the stronger personality of the soldier who can tolerate but one end to this war, cost what that may—the victory of liberty and justice, and the utter abasement of brute force.

And when one looks back over the months of training that the soldier has had one recognizes how every feature of it, though at the time it often seems trivial and senseless and irritating, was in reality directed to this end. For from the moment a man becomes a soldier his dual personality begins. Henceforth he is both a man and a soldier. Before his training is complete the order must be reversed, and he must be a soldier and a man. In his conduct he no longer only has to consider his reputation as a man, but still more his honour as a soldier. In all the conditions of his life, his dress, appearance, food, drink, accommodation, and work, his individual preferences count for nothing, his efficiency as a soldier counts for everything. At first he "hates this", and "cannot see the point of that." But by the time his training is complete he has realized that whether he hates a thing or not, sees the point of a thing or not, is a matter of the uttermost unimportance. If he is wise, he keeps his likes and dislikes to himself.

All through his training he is learning the unimportance of his individuality, realizing that in a national, a world crisis, it counts for nothing. On the other hand, he is equally learning that as a unit in a fighting force his every action is of the utmost importance. The humility which the Army inculcates is not an abject self-depreciation that leads to loss of self-respect and effort. Substituted for the old individualism is a new self-consciousness. The man has become humble, but in proportion the soldier has become exceedingly proud. The old personal whims and ambitions give place to a corporate ambition and purpose, and this unity of will is symbolized in action by the simultaneous exactitude of drill, and in dress by the rigid identity of uniform. Anything which calls attention to the individual, whether in drill or dress, is a crime, because it is essential that the soldier's individuality should be wholly subordinated to the corporate personality of the regiment.

As I said before, the personal humility of the soldier has nothing in it of abject self-depreciation or slackness. On the contrary, every detail of his appearance and every most trivial feature of his duty assumes an immense significance. Slackness in his dress and negligence in his work are military crimes. In a good regiment the soldier is striving after perfection all the time.

And it is when he comes to the supreme test of battle that the fruits of his training appear. The good soldier has learnt the hardest lesson of all—the lesson of self-subordination to a higher and bigger personality. He has learnt to sacrifice everything which belongs to him individually to a cause that is far greater than any personal ambitions of his own can ever be. He has learnt to do this so thoroughly that he knows no fear—for fear is personal.

It is a far cry from the old days when one talked of self-realization, is it not? I make no claim to be a good soldier, but I think perhaps that I may be beginning to be one, for if I am asked now whether I "loathe militarism in all its forms" I will think that "the answer is in the negative." I will go even further and say that I hope that some of the discipline and self-subordination that have availed to send men calmly to their death in war will survive in the days of peace, and make of those who are left better citizens, better workmen, better servants of the State, better Churchmen.

#### D.—TEACHING AND MAINTENANCE OF DISCIPLINE.

The reasons for discipline in every walk of life are well known. From childhood all are, or should be, disciplined, and it is not believed that any rational person disputes the necessity for discipline, the only difference of opinion being the standard of discipline that it is necessary to produce in any particular profession, etc.

In the fighting services of a civilized country it has almost invariably been the practice to try and produce the highest standard of discipline. This is essential, as discipline instils obedience and *vice versa*, and it will be found that under the most trying conditions of discomfort, danger, etc., the human machine will not fail.

Discipline in the past has probably mostly been obtained by fear of punishment. Nowadays, owing to improvements in education, discipline can be obtained and maintained much more readily by the personal character of those in authority than by the exercise of punishment.

It is essential that those in authority should be possessed of imagination and sense of humour, more particularly the more senior officers, and they must always be ready to set an example by never sparing themselves for the good of the service.

Power of command is usually learnt by experience, but it is recommended that junior officers should be instructed in this all-important matter more than is the case at present.

There must be a good reason for every order that is given, and the reason should be explained to the men where this is possible. Good seed can frequently be sown in this direction by explanation to petty officers and others; it soon gets round.

Petty officers, leading rates, and others must be taught to lead and direct others and to combine firmness with tact.

Parades and many other forms of close-order discipline must never be neglected.