1913.

NEW ZEALAND.

NAVAL DEFENCE:

CORRESPONDENCE BETWEEN THE FIRST LORD OF THE ADMIRALTY AND THE PRIME MINISTER OF THE DOMINION OF CANADA.

Presented to both Houses of the General Assembly by Command of His Excellency.

I.

From Right Hon. R. L. BORDEN, K.C., M.P., to Mr. CHURCHILL.

MY DEAR MR. CHURCHILL,— Ottawa, Ontario, 18th December, 1912.

It has been suggested to me that the construction of large warships of the most modern type has been attended with great difficulties in its earlier stages, and that the cost has been excessive. If I am not trespassing too much on your good nature, I would be glad to receive any information along that line, so that it will be available if necessary.

Yours faithfully,
R. L. BORDEN.

The Right Hon. Winston S. Churchill, M.P., First Lord of Admiralty, London, England.

II.

From Right Hon. R. L. BORDEN, K.C., M.P., to Mr. CHURCHILL.

MY DEAR MR. CHURCHILL,— Ottawa, Ontario, 18th December, 1912.

One of the officials in the Canadian Naval Service has made up the enclosed estimate as to the first cost and the annual cost of maintenance of two fleet units. Although I possess no special or technical knowledge of such matters, I am inclined to think that the estimate is too low. Perhaps you would be good enough to submit it to the technical officers of your Department, or to persons experienced in naval construction, and let me have an estimate which might be used in Parliament if necessary.

Yours faithfully,
R. L. BORDEN.

The Right Hon. Winston S. Churchill, M.P., First Lord of Admiralty, London, England.

ENCLOSURE.

	First Cost.		Annual Cost of Upkeep (exclusive of Depreciation).	
	British.	Canadian.*	British.	Canadian.†
	Dollars.	Dollars.	Dollars.	Dollars.
1 battle-cruiser	11,750,000	15,650,000	700,000	980,000
3 cruisers of Bristol class	3,393,000	4,524,000	700,000	980,000
6 destroyers	3,600,000	4,800,000	486,000	680,000
3 submarines	1,350,000	1,800,000	120,000	168,000
Cost of one fleet unit	20,093,000	26,774,000	2,006,000	2,808,000
Cost of two fleet units	40,186,000	53,548,000	4,012,000	5,616,000

* Based on lowest tender received by previous Government for construction of cruisers and destroyers.
† 40 per cent. in excess of British cost.

III.

From Mr. CHURCHILL to Right Hon. R. L. BORDEN, K.C., M.P.

MY DEAR MR. BORDEN,— 23rd January, 1912.

I am very sorry for the delay in sending you the enclosed memorandum. It has been unavoidable. I hope it has caused you no inconvenience.

Yours sincerely,

WINSTON S. CHURCHILL.

MEMORANDUM, 23rd January, 1912.

The suggestion that the proposed battleships could be expeditiously built in Canada cannot be based on full knowledge of the question.

The battleship of to-day has gradually been evolved from years of experiments and experience. She is a mass of intricate machines, and the armour, guns, gun-mountings, and machinery all require separate and extensive plant, of a very costly nature, to cope with the constant changes in designs and composition. In addition to this, the actual construction of a battleship, where high tensile and mild steel are largely used, requires the employment of special riveters and steel-workers. These men are difficult to obtain in Great Britain, and it is thought it would be a long time before a sufficient number of efficient workmen of this nature could be obtained in Canada.

For the manufacture of armour plates large steel furnaces, heavy rolling-mills, planing-machines, carburizing plant, &c., capable of dealing with weights of 150 tons at a time, have to be provided, besides which the special treatment to obtain the correct quality of plate requires special experts who have been brought up to nothing else. Such men could not be obtained in Canada.

For the manufacture of guns, plant consisting of heavy lathes, boring and trepanning machines, wire-winding machines, as well as a heavy forging plant, and oil-tempering baths with heavy cranes, all capable of dealing with weights up to and over 100 tons, are required. The men for this class of work are specially trained, and could not be obtained in Canada. For the manufacture of gun-mountings, which involves the use of castings of irregular shape from 80 to 100 tons, and which require special armour treatment, a special armour-plate plant is required. The hydraulic and electric machinery for these mountings are all of an intricate and special design, requiring special knowledge, and can only be undertaken by a firm having years of experience of work of this nature.

The manufacture of engines, although requiring special treatment, does not present such great difficulties as that of armour, guns, and gun-mountings. But in starting a new business of this kind it would be difficult at this stage to know what plant machinery to put down, as the possible introduction of internal-combustion engines may revolutionize the whole of the engine-construction of warships. The above does not include specialities, such as bilge-pumps, steering-gear, and numbers of other details which have to be sub-contracted for all over the country and only with people on the Admiralty List. The expense of fitting these up, sending them out, and carrying out trials would become very onerous.

For the building-yard itself the installation of heavy cranes and appliances for building a vessel of, say, 27,000 tons is a very heavy item, and the fitting of the blocks and slips to take this weight would require considerable care in selection of site in regard to nature of soil for the blocks and launching facilities, so that the existing shipyards might not be adapted for this purpose.

As an example of the cost of a shipyard, it may be mentioned that Elswick, in order to cope with increased work, have lately put down a new shipyard, which is costing approximately three-quarters of a million pounds. This yard has already been two years in preparation, and will not be ready for laying down a ship for another six months.

With regard to foreign shipbuilding, Austria-Hungary has largely extended her resources by laying down two large slips at Fiume. This scheme was projected in 1909. It is understood that these slips were put down in 1911, and the first battleship commenced in January, 1912. The Austrian Press states that the contract date for completion is July, 1914, but that it is probable there will be a delay of some months in the realization of this. In this instance, however, they have other large yards and all the necessary plant in the country. The cost of this undertaking is not known.

The Japanese have taken twenty years in working up their warship-building, and now take over three years to build a battleship, and, although anxious to build all ships in their own country, they still find it necessary to have some of them built in Great Britain.

Spain has developed a shipyard in Ferrol and Cartagena. They have only found it possible to put down second-class battleships of about 15,000 tons at Ferrol (the bulk of the material coming from Great Britain), and the yards are being financed and worked by English firms (Armstrongs, Brown, and Vickers).

Taking the above points into consideration, it is clear that it would be wholly unwise for Canada to attempt to undertake the building of battleships at the present moment. The cost of laying down the plant alone would, at a rough estimate, be approximately £15,000,000, and it could not be ready for four years. Such an outlay could only be justified on the assumption that Canada is to keep up a continuous naval building programme to turn out a succession of ships after the fashion of the largest shipyards in Great Britain and Europe.

IV.

From Mr. CHURCHILL to Right Hon. R. L. BORDEN, K.C., M.P.

MY DEAR MR. BORDEN,— 24th January, 1913.

1. I have now had an examination made of the figures which you sent me in your letter of the 18th December [see No. II], and I find that they are not quite in agreement with those which have been worked out here, particularly in regard to the first cost of the "Town" class cruisers.

2. I enclose a table showing the cost of a fleet unit such as is proposed, if constructed in this country, (*a*) on the types and at the prices which were current in 1909–10 when the Australian agreement was made, and (*b*) at the present time. The considerable increases shown are due partly to the rises in prices and partly to the increased power of the model battle-cruiser or fast battleship.

3. I think I may assume that the arguments used in the memorandum sent you on the 23rd instant will have convinced you that the idea of building the capital ships in Canada is impracticable; and I have therefore not attempted to obtain an estimate on that basis; it would, indeed, be almost impossible to frame one. But I am safe in saying that the increase in cost could not be prudently calculated at less than 25 per cent. or 30 per cent.

4. I also send a table showing similarly the difference in the cost of maintenance of such a fleet unit between 1909–10 and 1913 at British rates of pay; and, as it is to be presumed that Canadians would not be attracted to enlist in a Canadian Navy except by rates of pay effectively competing with the general rates of Canadian wages, I have added a third column showing the increase which would be involved by granting the rates of pay now drawn by officers and men serving in the "Rainbow" and the "Niobe," which, taken as a whole, are about two-thirds higher than in the Imperial Navy.

5. Apart from the reply to your immediate question, it seems desirable to comment on another point. The Admiralty will, of course, loyally endeavour to facilitate the development of any practicable naval policy which may commend itself to Canada; but the prospect of their being able to co-operate to any great extent in manning the units is now much less than it would have been at the time of the Imperial Conference of 1909.

6. It must be remembered that the new German Navy Law has necessitated a large increase in the number of ships which His Majesty's Government must keep in commission, and all our manning resources are now strained to their utmost limits, more especially as regards lieutenants, specialist officers (gunnery, torpedo, and navigation), and the numerous skilled professional ratings which cannot be improvised, or obtained except by years of careful training.

7. In 1909 the question turned upon the provision by Canada in the Pacific of a fleet corresponding to the Australian fleet unit, involving an initial expenditure estimated at £3,700,000, and maintenance at an estimated cost of £600,000 per annum. The Canadian Government did not think this compatible with their arrangements, and suggested that they should provide a limited number of cruisers and destroyers which were to be stationed in the Pacific and Atlantic. The Admiralty agreed to help the organization and manning so far as possible. Between that time and 1912 a commencement was made with the establishment of a Canadian naval force, but in those three years only small progress was made with the training of recruits and cadets, and it would have been impossible for the Canadian Government to man a single cruiser. The provision of two fleet units consisting of the most modern ships would divert from their necessary stations a large number of very efficient officers and men who would have to be lent by the Admiralty. The case of the Australian unit stands on a different footing, for its establishment directly relieves the British vessels hitherto maintained on the Australian Station, thus ultimately setting free a considerable number of men. Looking to the far greater manning difficulties which now exist than formerly in 1909, the establishment of two such Canadian units would place a strain upon the resources of the Admiralty which, with all the will in the world, they could not undertake to meet during the next few years.

8. It must further be borne in mind that the rapidity with which modern ships deteriorate, unless maintained in the highest state of efficiency by unremitting care and attention, is very marked. The recent experience of certain South American States in regard to vessels of the highest quality has been most painful, and had led to deplorable waste of money, most of which would probably have been avoided if care had been taken to supply at the time the ships were commissioned adequate refitting establishments and staffs of skilled and experienced personnel, both afloat and ashore.

Yours very sincerely,

WINSTON S. CHURCHILL.

FIRST COST.

	If actually ordered in Great Britain in 1909–10 at Prices then current.		As estimated in January, 1913, for Vessels of Latest Type.	
	£	Dollars.	£	Dollars.
1 battle-cruiser	2,293,660	11,162,478	2,652,100	12,906,886
3 "Town" cruisers	1,112,310	5,413,242	1,234,900	6,009,846
6 T.B. destroyers	667,026	3,246,193	843,000	4,102,600
3 submarines	274,875	1,337,725	365,000	1,776,333
Sea stores and fuel	59,280	288,496	64,400	313,413
Total	4,407,151	21,448,134	5,159,400	25,109,078

MAINTENANCE.

—	As estimated for 1909–10.*		As estimated for January, 1913.*		As estimated for January, 1913, at Canadian Rates.*	
	£	Dollars.	£	Dollars.	£	Dollars.
1 battle-cruiser	143,836	700,000	169,000	822,467	208,200	1,013,492
3 "Town" cruisers ...	143,836	700,000	176,000	856,533	216,060	1,051,749
6 T.B. destroyers ...	99,863	486,000	96,500	469,633	118,100	575,038
3 submarines	24,657	120,000	29,200	142,107	38,900	189,376
Total	412,192	2,006,000	470,700	2,290,740	581,260	2,829,655

* The amounts here given do not include non-effective charges, depreciation, or sinking fund.

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