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A SHORT STUDY IN NAVAL STRATEGY.

Naval and Military

1910
107

Mr. President and Gentlemen of the Conference:

With the regeneration of the United States Navy in 1887 there arose the necessity for the adoption of three measures of the highest importance - namely -:

- 1st. The placing of the administration of the affairs of the Navy on a Warfooting.
- 2nd. The creation of a fleet; and
- 3rdly The establishment of Naval Bases.

The first measure is in a fair way of accomplishment.

The second, the Fleet, is an accomplished fact, leaving only the third measure to be considered.

In the building of a Navy the public mind seems to be centered on Ships alone. Tables are published from time to time showing the comparative strength of navies as measured by the number of battleships of each country, together with their tonnage and gunpower. Engrossed by the continued development of the battleship we overlook the important fact that there should be maintained a fixed ratio between tonnage and personnel. With the increase of number and size of battleships, moreover, comes the increased demand for the means of taking proper care of them. This necessitates ample docking facilities and repair shops. Keeping the underbody of a battleship clean enables her to maintain her normal speed, (her cruising radius,) with ^{out undue} an average expenditure of coal, (or oil), a very important factor during hostilities. A battleship should be docked for cleaning at least once every six months. *The same rule applies to all hulls built of iron.*

Another very important item in the process of naval development is the establishment of naval bases. A base, in a military sense, is simply a basis of operations, or a

point from which supplies may be drawn. A naval base means that and much more.

The term "naval base," it may be observed, is new to our naval vocabulary. Naval students knew of such things only through reading of them. For having no fleet naval bases did not enter, as a factor, into our naval life. Our first ships after the termination of the Revolutionary War - those built during the latter part of the Eighteenth Century, were set up, some of them at least, in private ship yards, which were conveniently located for the purpose. These were utilized by the Secretary of the Navy, and their purchase was subsequently authorized by Congress. Such was the ship yard owned by John Jackson. It was situated on or near a mud flat on Wallabout Bay, Brooklyn, N.Y. It was here that the ADAMS, a small 28 gun frigate was built for the Government by Jackson in 1779. [She was burnt in 1814 to prevent being captured by the enemy.] It seems to have been the policy of that day to utilize whatever happened to be at hand and to make the most of it. Those private ship yards, coming under government control gradually took on the character of, and came to be known as, Navy Yards. They served their purpose in their day; but, for some of them, that day has ^{long} passed. The utilitarian policy no longer obtains. In looking to the further growth of the Navy we must adjust, and readjust our focus to modern conditions as they grow and expand that all the various elements that go to make up a navy may be seen in their true proportions and their proper relations.

The old navy yards were naval bases only in such a very limited sense, that they were never known as such. The selection of sites was dictated by utility not by reason of their strategic position or their value in a military sense.

"The readiness with which our engineers toss buildings,

steel rails, locomotives and machinery generally into the scrap-heap amazes Europeans, and accounts, in part, for our industrial efficiency. This resort to the scrap-heap requires courage. Yet on the whole, it pays." ^(press report - large)

The New York Navy Yard in the hands of a business concern such as controlled by the great Captains of Industry would have been sent to the scrap-heap years ago. The great harbor of Dover was eleven years in building and is not ^{at the New York Navy Yard} and Dock No. 4 has been ten years in building and is not yet completed. No business concern would have attempted to construct a great dry-dock on a foundation of quick sand.

It has been intimated that Congress would not stand for a new Navy Yard. My contention is that ^{one} ~~none~~ can say what Congress will stand for. Take for example this War College. The Navy Department did not ask for it, and yet ^{may be said} Congress voted \$100,000 for it. ^{of this city} The same of the Government landing. ^{one} The same of the two dry docks on the coast of South Carolina; the same of the floating dock at New Orleans, the same of Pearl Harbor. The Department did not ask for 3-1/2 millions for a recruiting station at North Chicago and yet there it is. In all these cases the Navy Department has been led by the nose. - No disrespect intended - only facts. It is now time for the Navy to say what it does want, ^{we stated} ~~it having this ^{waste} ~~kind of affairs.~~~~ ^{Here} is the place to say it, and now is the time!

In fitting out a fleet and its auxiliaries during war, or in anticipation of war, a permanent naval base in a situation favorable for operations in the field of hostilities, is of the first importance. After a battle a naval base is a necessity whatever may be the result of an engagement. We know from recent naval history that even a victorious fleet will suffer serious losses and will be obliged, in parts at least, to fall back on its base for supplies and

repairs. If worsted in the fight then the whole fleet, or what is left of it, will have to seek the shelter of its base, and badly damaged ships - ships perhaps in a sinking condition must be speedily docked, be beached, or go down in deep water. A naval base moreover is necessary for the assembling of the reserves, or battle ships of the second category, - Ships with all but perishable stores on board and ready at short notice to fill gaps in the line of battle. A glance at foreign naval powers will show the military value attached to naval bases, and to the imperative necessity of organizing the reserves of the line of battle.

The great military ports of England, Germany, France, Russia, Italy, and Japan, serve as illustrations in point. After the unification of Italy in 1859 there was constructed at Spezzia a dock yard that for capacity and completeness was equal to all of our navy yards of that day combined. It was designed for nine building slips and ten dry docks. At Kiel and at Wilhelmshaven the Germans boast of two of the finest dock yards in the world, the creation of recent years. The magnificent roadstead and dock yard of the former (Kiel) has been rendered impregnable by the defensive works planned by a Commission presided over by Von Molke himself. Wilhelmshaven with its three dry docks each one capable of taking in a battleship of 25,000 tons displacement gives one an idea of what constitutes a primary or, permanent naval base.

In addition to these there was begun in May 1909 at Brunsbettel on the Elbe, just at the entrance of the Kiel Canal two dry docks which surpass any yet constructed. They are in length 330 meters (1,072.50 feet) and 45 meters (146.25 feet) wide to cost 30 million marks - about 6-1/2 million dollars.

England, fully alive to the possibilities of the near

dry docks

future has established new naval bases at Malta (3. ~~is~~ ^{is}) Gibraltar, (new by reason of the new dry dock), Dover, and Rosyth. The old dock yards at Chatham, Sheerness, Portsmouth, Plymouth, Pembroke, etc., etc., no longer suffice. The government dry dock No. 1, at Gibraltar is 863 feet long and 95 feet wide.* The harbor recently opened at Dover, is said to be the largest artificial harbor in the world. It encloses an area sufficient for the accommodation of a fleet of twenty-five first-class battleships, and auxiliaries. Dover harbor was begun in 1898 and is said to have cost \$20,000,000.

" This harbor has taken eleven years to construct and has cost the Government \$20,000,000. By its erection the ancient English port of Dover has been transformed into a powerful naval base. The reason for this transformation is not far to seek. It is the policy of the British Admiralty for the strength and bulk of their ships to lie nearest their strongest rival."

"That rival today is Germany, hence the desirability of equipping Dover with an efficiently protected harbor, where the ships can lie safely at anchor and yet be in a position to strike quickly at the North Sea. ^{Note} *The Construction of Dover Harbor*

has taken 11 years, It will be more than 11 years before dock No. 4 at the New York Navy Yard is finished. ^{Dover} *It* cost \$20,000,000. ^{The} *The* Chicago Training Station, ^{the} 2 dry docks, South Carolina, ^{the} dry dock, New Orleans, together with their maintenance cost as much. ^{nearly}

It is no part of your business to criticise Congress for appropriating money for political purposes and charging it up against the Navy. Paying for votes out of the U. S. Treasury is a recognized part of our political system.

^ We have nothing to do with that. But it is your business to study carefully, and solely from the military

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This dry dock can accommodate the great White Star Liners OLYMPIC and TITANIC of 50,000 tons displacement.

and naval points of view, the best places for naval bases and to found your conclusions on such solid grounds as to defy adverse criticism. That is your whole duty in this connection. It is then for the executive and Congress in the exercise of their wise discretion to adopt the War College plans, ^{or to reject them} or to modify them ^{altogether}. With that part of the process of naval development this College has nothing to do. Rosyth on the north side of the Firth of Forth, Scotland, is now nearing completion.* Japan has at Yokohama three dry docks, and four at Yokosuka. The French have their principal military ports at Brest, Cherburg, Toulon and Bizerta, near Tunis, where there are 3 dry docks. Then we have Port Arthur and Vladivostok as examples of great military ports. [¶] Let us pause here for a moment to consider the sudden rise of Germany as a naval power.

The publication of the "Kruger telegram" (showing German sympathy with the Boers) moved the English people far more than did the Venezuelan message of President Cleveland a few weeks earlier. The British government made instant preparations ^{for war} for war. The naval preparations of England gave offense to Germany and was regarded as a humiliating threat; an affront that would not have been offered had Germany possessed an adequate navy. The Emperor had read Mahan's "Influence of Sea Power", a book we are told that had much to do with the building up of the German Navy as any other single influence. ~~[I will say here that]~~ This statement about the German Emperor is from an article in the July Scribner. I can vouch for its truth.] At the launching of the German battleship KAISER WILHELM der GROSSE, June 1899, the Emperor made his famous speech "Our future is on the Sea," One of the most telling parts of the speech

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See Engineering of March 13, 1908.

There are all military ports or distinct from commercial ports.

's Sea Power

was a quotation from Mahan which he had no hesitation in admitting.

The exposed condition of the extensive German Commerce; the studies of the cooperation of the land and sea forces in war, the Emperor's personal convictions on the subject of a navy were the latent forces released into full activity by the resentment in England of the "Kruger telegram." The naval strategy of England now requires her to have in home waters a floating force sufficient to engage on more than equal terms a fleet of 38 battleships and 20 large cruisers within one day's sail of her coast.

The following is taken from a recent English paper:

"Wilhelmshaven and Emden, Borkum and Heligoland,* the greatest quadrilateral of naval fortresses the world has ever beheld, are fast completing their individual and connected strength. Within two-thirds of a day's steaming of the British coasts, within half a day's reach to the entrance of the Baltic, they proclaim to the world that Germany is preparing for a great naval conflict."

The foregoing while somewhat hysterical in style presents hard facts in regard to Germany's naval projects. They naturally awaken great solicitude in England where the harsh answer to the "Kruger dispatch" is forgotten. If we add to the foregoing that these "menacing potencies", as the writer expresses it, are under the absolute control of one will - the Emperor's, who has but to touch the button to put this vast military machinery in motion, we cease to wonder at the increased activity of England's naval preparations. Germany's naval operations, be it observed, are confined to home waters, and near its base: ~~The same with England.~~

* Heligoland is an islet only one-fifth of a square mile in area.

(F. Hugh O'Donnell, Pall Mall Gazette, Apr. 8, 1910.)

The recent transfer of the principal German naval base from Kiel to Wilhelmshaven "is the announcement that the fortified island of Borkum combines with Emden to accentuate the importance of the Ems estuary in the new scheme for the future; while Borkum connects with Heligoland through the impassible chain of the East Frisian Islands; and Heligoland - the Northern Gibraltar - closes to an enemy the estuaries of the Weser and the Elbe, and completes with the mighty fortress-harbor of Wilhelmshaven the vast quadrilateral - Emden, Borkum, Heligoland, Wilhelmshaven - which encloses in its enormous bastion-configuration - 100 miles long on each of its faces and 60 on each of its flanks - a score of islands bristling with forts, together with linking positions on the mainland of huge strength and extent. The great waterways of the Ems, the Weser, and the Elbe bring the resources of populous provinces to the wharves and quays. A vast system of strategic railways can carry thousands of trained soldiers to the mighty embarkation docks of Emden. It is appalling to think of the possible position if those unparalleled preparations and armaments represented enemies or rivals."

A declaration of war might be heralded at any time by a hostile shot. In the last 200 years, I have seen it stated, 107 wars have been precipitated without a formal declaration.

England's recent naval display in the North Sea, in which King George ^K took part, will certainly tend to increase the bad feeling between the two countries. No one can tell the outcome of all these active preparations for war. Should it result in war this country will remain neutral as a matter of course; but it may become involved in spite of its peaceful intentions. If it should so happen that Germany should seize the island of Jamaica what would be the course of the United States? We know that many Germans regretted that at the termination of hostilities of the Franco-German War they had not exacted in part payment the ceding of the island of Martinique, for Germany has long wanted a naval base in the West Indies. Does all this explain the Canadian Navy? England could be starved in a week. ^{the reason for a} ^{into Submission} ^{was it into the high fleet}

From an examination of these and other of the great military ports of the world we are led to conclude that the constituents of a naval base of the first order are, roughly speaking, about as follows: -

1st. - Its situation must be at the best strategic point within the area under consideration.

2nd. - It must afford a safe harbor for a fleet of at least from twenty-five to thirty battleships with their auxiliaries, aggregating a total of about sixty heavy draft ships and numerous small craft.

3rd. - Such anchorage must be within the lines of defense.

4th. - It must afford ample docking facilities for docking, at one and the same time, at least four ships of 45,000 tons displacement each of say 38 feet (thirty-eight feet) draft.

5th. - The interior lines of communication to the sources

of supply should be such as may be fully secured in time of war.

6th. - It should be easy of access and egress and admit at mean low water, and without constant recourse to dredging ships of the heaviest draft of water - say thirty-eight feet.*

7th. - It should be in the proximity to a community able to furnish skilled labor in the departments of iron shipbuilding and marine enginery.

8th. - The facilities of the neighborhood for furnishing the materials which enter into these industries should be ample.

9th. - The character of the soil of the littoral should be such that dry docks and wet basins in numbers sufficient to meet all probable demands of the future can be constructed at moderate cost, and its area sufficient for all the structures that may be needed for a repairing yard and a naval arsenal combined.

10th. - It should enjoy a salubrious climate.

11th. - It should be difficult to blockade.

With the exception of Wilhelmshaven and one or two other of the great military ports of Europe it is not to be assumed that all these conditions can be found at any one place. But accepting the principal points it is plain that the United States has no naval bases. All the components of naval bases exist save only the will to assemble them.

Twenty years ago America had no fleet. All the various parts that go to make up a fleet lay scattered about in every direction. By the exercise of the creative power the thousand and one units have been marshalled in order and a fleet has sprung into existence. So far so good. But our naval development has been one sided. In the ardor of building a fleet naval bases have been overlooked: In that respect the constructive genius is still wanting. We have navy yards, naval

* We have not yet reached the limit of size of battleships. The White Star Liners OLYMPIC and TITANIC are 850 feet long, 92 feet beam, and at 37-1/2 feet draft, have a displacement of 60,000 tons. These ships could be docked at Gibraltar.

stations, Naval rendezvous; but, in a technical sense, we have no naval bases. The elements have yet to be assembled. This one sided growth is not progress. We may double the number of battleships and still make no naval progress unless the other constituents of sea power keep pace with the building programme.

With the development of the battleships goes, or should go, the development of all that makes her an efficient instrument of war; her motivepower, armament, personnel, munitions, victualing, means of repairing, docking, etc., etc., And as battleships increase in numbers and size so must all the heterogeneous elements that contribute to their efficiency increase, otherwise there is no real naval progress. The visible manifestations - the great ships and their warlike appearance delude the public into thinking increase of tonnage is progress. Those of the profession know better. It is their duty to point out defects, and instance cases of retarded development in the several parts.

What is the secret of this one sided growth? Briefly it is because the great iron and steel industries, the ship-building plants and ^{the} Navy Yards ^{all} representing millions of dollars of capital and thousands upon thousands of votes cannot afford to be idle. But here in this College, politics finds no place. Naval and Military questions must be discussed here and, if possible, disposed of, solely on their merits in the same impersonal manner as one would discuss a problem on Nautical Astronomy.

On examining the map of our Atlantic seaboard to which this discussion is confined, three principal strategic points at once attract attention: Narragansett Bay, Chesapeake Bay, and the Florida Keys. Chesapeake Bay has the making of a permanent or primary naval base. In the days of the old Navy, Hampton Roads fulfilled all the requirements of our

little floating force. Fort Monroe furnished the necessary defense, and the navy yard at Norfolk, established in 1807, with its narrow approaches and limited facilities was equal to the light demands made upon it. Those advantages no longer suffice. The army is already planning for an advanced line of defenses. In 1906 the "Taft National Coast Defense Board", so called because the Hon. Wm. H. Taft, then Secretary of War was its president, in recommending the fortifying of the entrance of Chesapeake Bay reported in part as follows:-

"Commercially and strategically Chesapeake Bay is today, as it always has been, of the very first importance. With the entrance unfortified, as it now is, should a hostile fleet gain control of the sea it could establish a base on its shores without coming under the fire of a single gun. It could pass in and out at pleasure, have access to large quantities of supplies of all kinds and paralyze the great trunk railway lines crossing the head of the Bay." (Coast Defense of the United States Report February 1, 1906.)

The proposition is to create an artificial island on the Middle ground, whereon to erect a fort mounting heavy guns. These with heavy guns on Capes Charles and Henry would effectually close the entrance of the Bay to an enemy. (See address of Rear Admiral Sperry, second day of second Annual Convention Deep Water Association Nov. 1909.)

If, coincident with the construction of these defensive works by the army, the navy should build dry docks at some carefully selected point in the Bay for the docking of our WYOMINGS and ARKANSAS of 26,000 tons displacement ^{and} or for 30,000 tons ships Chesapeake Bay would become in time a naval base of the first order.

Key West, Florida, is the most important strategic point

on the southern coast. The prospect of the early completion of the Panama Canal emphasizes its value from a naval point of view. Its great natural advantages have been materially enhanced by the construction of the Florida East Coast Railway which connects it with the mainland.* A full and very interesting report on Key West as a naval base will be found in the Congressional Record of April 5, 1910, page 4436.

Guantanamo, Cuba, is valuable as an advanced post, for the same reasons that apply to Key West. In the event of the Caribbean Sea becoming the theater of naval operations it would prove of very great value. It cannot however, come within the category of permanent naval bases, even with the expenditure of vast sums of money for defensive works (which are not likely to be forth coming.) Guantanamo cannot be regarded even as a permanent outpost as long as it is situated in an alien country, and its lines of communication, and sources of supply liable to be cut off by an enemy.

The early completion of the Panama Canal, and the questions of its defenses suggest the availability of Almirante Bay, Panama, as an advanced naval base of the second order. A division of the North Atlantic fleet visited Chirique Lagoon in 1904. All reports go to show that it is a capacious and safe harbor with good holding ground. A double turretted monitor moored inside of each entrance, Boca del ^{Toro}~~Boca~~, and Boca del Drago, with submarines and torpedoes would furnish all the defenses necessary.

Through the Boca del Drago leading into Almirante Bay there is a depth of from 6 to 8 fathoms. It would be a very simple matter to place there a floating dock similar to the DEWEY. This would convert it into a very valuable naval base.

* See Naval Institute of September 1909 for an admirable exposition of the strategic value of Key West by Commodore Beecher, U.S.Navy.

in time of war. It is only 132 miles from entrance of the Panama Canal. Should our naval operations in time of war be confined to the Caribbean Sea the problem would then be somewhat similar to that of Germany. That is to say our fleet would be operating in home waters and in ^{close} touch with its base, which would give us an advantage over any naval power ^{to} which we are likely to be opposed, ~~to~~, on the Atlantic seaboard, ~~to which our present discussion is confined.~~

At the Atlantic Deeper Waterways Convention, Norfolk, Va., Nov. 17-20, 1909 President Taft is quoted as speaking of Norfolk as the "most important navy yard and naval base that we have in the United States x x x and Chesapeake Bay as the greatest strategical point of naval rendezvous in the United States."

[Those remarks were ^{adapted} suited to the latitude.]

Accepting that authoritative statement, it may be confidently affirmed that next after Chesapeake Bay comes Narragansett Bay, which is the "greatest strategical point of naval rendezvous" north of the Capes of Virginia. Narragansett Bay seems to have been intended by nature for a permanent naval base of the first order.

English naval officers who had become familiar with our Coasts and harbors were quick to recognize that fact at an early day.

In 1773-4 British engineers made a careful study of Narragansett Bay with a view to the establishment of an extensive Naval Station, with dry docks, ships yards, marine hospital, and a system of fortifications.

In a report to the Board of Admiralty, under whose instructions the work was undertaken, it is stated that :

"The whole bay is an excellent man-of-war harbor, affording good anchorage, sheltered in every direction, and capacious enough for the whole of His Majesty's Navy, were it increased fourfold. There are no dangerous ledges or shoals

within the bay or near its entrance, which is easy with all winds. Another advantage it possesses over any other harbor on the northern coast in the winter season is that it is very seldom obstructed by ice; and the tide is not sufficiently strong to render drift ice dangerous to ships lying at anchor. The harbor has not been frozen up so as to prevent ships coming in to safe anchorage since 1740, and the oldest inhabitants do not recollect to have heard that it was ever so frozen up before since the settlement of the colony. It has other advantages which cannot be found elsewhere in America. A whole fleet may go out under way, and sail from three to five leagues on a tack; get the trim of the ships, and exercise the men within the bay, secure from attack by an enemy. The vicinity of the ocean is such that in one hour a fleet may be from their anchorage to sea, or from the sea to safe anchorage in one of the best natural harbors the world affords. Its central situation also, in His Majesty's North American colonies and its proximity to the West Indies, are advantages worthy of consideration, as it regards the protection of every part of His Majesty's widely extended possessions in this quarter." x x x x .

The report goes on to say:

"Whether it is feasible of defense is a question which your lordship" (the Earl of Sandwich) "very justly considers of the highest importance and to which my particular attention is directed. * * * Of expense I say nothing * * suffice it to say that it is completely feasible and that the importance of the position as a Naval Station is worth the expense, be what it may."

Written one hundred and thirty-seven years ago, the natural advantages pointed out in this report, which Narragansett Bay affords as a Naval Station, exists today; while the defensive work suggested in the report have been thoroughly carried out by our own military engineers. The breaking out of

the Revolutionary War put a stop to all further proceedings in this direction on the part of the English Admiralty.

Mr. Joshua Humphreys, Naval Constructor who designed the CONSTITUTION class of 44 gun frigates having been ordered by the Secretary of the Navy, under date of January 29, 1802, to examine sites for naval stations on the Eastern Coast reported, in part as follows:

"Having compared and considered the advantages and disadvantages of situation, with capacity of harbor, depth of water, rise of tide, expense in building docks, prices of land, facility of navigation, and capability of defense, previously stated at each port, I am decidedly of opinion that Newport, Rhode Island, is by far the most suitable port for the establishment of dry docks and a great naval port for our navy, for the ease and safety of entry at all seasons of the year. Its eligibility, in preference to any other eastern port is universally acknowledged. The principal and only objection is the great expense of fortification, which may amount to more than a million of dollars."

Under date of April 25, 1802 the Secretary of the Navy - Hon. Robert Smith, transmitted to the President the report of Mr. Humphreys. In the letter of transmittal the Secretary wrote:

"Mr. Humphreys was also instructed to examine the different ports and harbors eastward of New York with a view to the selection of the situation for one of the docks for repairing ships directed by Congress."

"His report on that subject corresponds with the opinion the Secretary of the Navy has long entertained, from the best lights in his power that Newport, Rhode Island, affords advantages which give it a superiority over other places."

"It is easy of access and can be gained under circumstances which would render it almost impossible for a ship in a crippled state to reach any other port to the eastward of Chesapeake Bay. It has a capacious and very safe harbor in all kinds of weather: and is the very point of which a maritime enemy would endeavor to get possession, for the purpose of annoying our own coast, our own trade, and of cutting off onehalf the maritime strength of our country from the other half."

α The objection to this place is the expense of fortifying it " - x x France or England could take possession of Rhode Island and make it a second Gibraltar" etc., etc.

No one can read the exhaustive report of Mr. Humphreys, to which the Secretary gives such hearty approval, without feeling that he was thoroughly well qualified to deal with the subject under discussion.

Our own officers were not slow to recognize the importance of these waters both from a naval as well as a military point of view. Agreeably to the terms of a Senate resolution of February 13, 1817, a mixed commission of naval officers and officers of the U. S. Engineer corps examined and reported upon a proper site "for a naval depot, rendezvous and dock yard," east of Delaware Bay. The Commissioners were General Swift and Colonel McRee of the Corps of U.S. Engineers, and Commodore Bainbridge and Captains Samuel Evans and Oliver H. Perry of the Navy.

As between Boston and Newport Commodore Bainbridge preferred the former, as it was "favorably situated for obtaining timber for shipbuilding -" all the others favoring Narragansett Bay. The majority report, dated Navy Yard, New York, October 30th, 1817, goes on to say:

"The Commissioners (except one, Commodore Bainbridge) are of the opinion that Narragansett Bay presents the best

site for a naval depot in the Union north of Chesapeake Bay -."

After dwelling on the advantages ~~offered~~, ^{afforded} the report continues:

"An examination of this bay has satisfied the Commissioners (with one exception) that the best site for a great naval depot east of Chesapeake Bay is to be found in this bay (Narragansett) and the various positions upon the waters of it."

Again:

"The Commissioners have in their survey and examination only determined where it will be best to locate a great naval depot and where sites for defense should be selected."*

The report concludes with considerations of defensive works just as the English report did. The defensive works are to-day nearing completion. The physical geography of the bay remains unchanged since the day that report was written.

The three lookout stations at Gay Head, Block Island and Montauk Point which in time of war would give notice of the approach of an enemy's fleet gives an exceptional advantage to Narragansett Bay as a naval base.

As an industrial center it ranks high. During the Civil War the Builders Iron Foundry of Providence, R.I. made a large quantity of shot and shell for the ~~Army~~ ^{Navy} and more than 300 6.4 guns.

Since 1891 that firm has made for the United States government seventy-three 12-inch Breech-Loading Rifled Mortars with cast iron bodies hooped with steel; and fifty with steel bodies similarly hooped. Altogether the shores of Narragansett Bay, and its tributaries, can furnish all the skilled labor a naval base could need during peace or in time of war.

The fact that it has a channel forty feet deep which can be

* This admirable report may be read with profit today.

mention
 one of these reports, it will be observed, as a great naval
 report.

carried ten miles up from the entrance, and that too, without dredging ^{gives} ~~gives~~ it another advantage enjoyed by no other harbor on the coast.

On the north west shore near *Framwich* will be found an excellent place for a fresh water basin for "destroyers", torpedo boats, and small craft generally, an advantage than can be claimed by no other harbor on the coast, save Philadelphia which is too far from the Sea.

The one and only objection to Narragansett Bay in 1773, 1802 and 1817 as a great naval port "was the expense of fortifying it." That objection has been overcome. Narragansett Bay is now well fortified. It has, therefore, all the constituents of a naval base of the first order, save the docking facilities. It only awaits the time when its exceptional advantages shall have been passed upon officially by a duly appointed mixed commission as has been our practice in the past, and the question of its adoption taken up by Congress.

It was a very wise move to establish a naval base at Pearl Harbor two thousand miles off the coast of California. It would be equally wise to establish one at home, right at our door. The argument against the establishment of a naval base in Narragansett Bay is that we have too many naval stations already, and that the Administration would scarcely be justified in asking Congress for the ^{money} ~~high sum~~ necessary to erect another and an entirely new one. That question, to repeat it once more, is for Congress to decide, not for this Conference. It is for Congress to decide whether the paramount necessities of the entire country are to be sacrificed to the personal and political interests of localities having little or no military value. For it can be established to the satisfaction of the people at large that the excess of naval stations is due solely to politics and not to the needs

one very great advantage of Narragansett Bay and one which must not be overlooked is that it is not a commercial port.

of the Navy.

We have seen the importance attached to naval bases abroad. We have noticed that in each case the naval bases *or at the great commercial centers* are not placed up narrow streams, but at strategic points *while* near the sea; and easily accessible to friends, *and yet* ~~but~~ strongly fortified against foes. With these and other important considerations you will be able to define the term "naval base", and what constitutes a permanent naval base; and further to classify primary naval bases, secondary naval bases, naval rendezvous, etc., etc.

Having decided on the constituents of naval bases, the next step will be to examine the principal strategic points, on the Atlantic seaboard and the Caribbean Sea, with a view to determining the most desirable location for permanent naval bases of the first order, then bases of the second order, and so on.

By way of example let the following question be answered:-

Is Almirante Bay worth securing on a ninety-nine year lease as an advanced base?

Are the Florida Keys of sufficient strategic value, as a naval base, to warrant continued development?

Is the Norfolk Navy Yard; seventeen miles from the sea, and on a narrow river; all that a naval base should be on that part of the Coast?

Do the conditions of the New York Navy Yard justify further development? Situated on a narrow river ~~for~~ ^{18 miles} from the ~~Sea~~ ^{Sea}, the approaches in a highly congested state, growing every year more and more embarrassing; and located on a foundation of quick sand, is further expenditure of money at that point advisable? save in the way of maintenance?

Does Narragansett Bay fulfill all the natural requirements of a permanent naval base of the first order? If it

does, and it certainly does from my point of view, then why no say so definitely?

These are not hypothetical questions that are presented for your consideration. They are plain practical questions in the branch of naval strategy that belongs to a time of peace. It would be difficult to exaggerate their importance.

The determination of naval bases moreover requires much careful study; and when the several points have been settled it requires much time and large expenditure of money for their development.

In respect to permanent naval bases we cannot hope to reach the high standard set by Germany: but as the Germans are a military people and very much in earnest in the development of their navy, and as they are very thorough in all they do in that respect, we certainly may obtain from them some valuable points to guide us in the full development of our own navy.

With these general remarks the subject of naval bases on our Atlantic Coasts is commended to your careful consideration.

A. D. D. D.

*Mr. Collier
August 27th 1910.*