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The Naval Advanced Base

A Lecture by

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THE NAVAL ADVANCED BASE.

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Since the beginning of the modern Navy farseeing officers have realized the necessity of a fleet that should comprise all of the various elements that may be required or prove of value under the varying conditions of war, and in the discussions that arise concerning the possibilities and necessities of the service we frequently hear of the "well-balanced fleet." This comprehensive term is used to express the ideal of a great naval force, containing all of the required elements in the proper proportions, each element as near perfection as the skill of the builder can devise, with crews trained to the ultimate "fighting edge," and ready to sail at instant notice to any part of the globe and engage any possible enemy with bright prospects of success.

Such a naval force insures to the country long periods of unbroken peace, during which our people may exert all their energies in developing the wonderful natural resources of a great country, or, with confidence in the support of a strong Government, go forth into the markets of the world and freely bid for the high prizes of commerce. It is, in fact, a great potential machine against which foreign nations must hesitate to move, and which in the day of need can go forth against any enemy with the brightest prospects of speedy success, thus interrupting for the shortest possible time the peaceful pursuits of our own people and those of friendly nations.

A perusal of the reports of the Conferences of the Naval War College and the Proceedings of the Naval Institute shows how the practical and thoughtful seagoing officers of the service have worked out the problem of the well-balanced fleet as to its battleships, cruisers, scouts, torpedo craft, submarines, mine ships, colliers, repair ships, supply ships, and hospital ships; while others have turned their attention to the necessities of great permanent bases where the elements of the fleet may be fitted out, repaired, and, if necessary, built from keel to truck. But there is one point which has been but little discussed in the debates that have marked the progress of the subject. This is the question of the temporary

bases that will be required from time to time during the progress of any future maritime campaign, and to which recent usage has given the name of naval advanced bases.

This question of temporary bases for the battle fleet during maritime war is not a new one; in fact, it is as old as the question of the fighting ships themselves. True, in the days of sailing ships it was possible for single ships and even fleets to keep the sea for months without recourse to their bases—in fact, as long as water and food held out; but with the advent of steam as the sole motive power a new problem appeared. The ships must have coal, and they can only take it with certainty and dispatch in smooth water; and as the picturesque sails have disappeared from above the decks of the fighting ships, so has largely that freedom of movement that characterized these ships in the days that are passed. It has become clearly evident that the battle fleets both of the present and the future are destined to be tied to their bases by the invisible, but none the less powerful, ties of their steaming radii.

Some sort of stations where ships can coal in safety or refit as necessary, and where the colliers, supply ships, torpedo vessels, and small craft can lie behind fortifications and mines, secure from attacks by sea, has become a recognized necessity. The British people, long realizing that their very existence as a nation depends upon sea power, were first to perceive this great necessity, and from this arose the plan which dotted the shores of the world with British coaling stations.

Still, as these stations grew in number and importance, the demands for their defense against the attacks of an enemy in the absence of the battle fleet grew apace, and early in this century the leaders of military thought in Great Britain ascertained by a simple process of addition that it would take half a million men to man the defenses of her far-flung host of coaling stations, a policy which would use up the whole available army of the Empire for defensive purposes alone, leaving no mobile army to carry home the attack after her admirable fleet had gained the mastery of the sea and made the way clear for final conquest.

It became evident that, however desirable it might be to have an endless chain of well-defended naval bases where the fleet might coal, provision, and refit in time of peace or war, regardless of the theater of war which the enemy might select, and independent of the troublesome though legitimate interferences of neutrals, such a system must prove so expensive in the expenditure of men and material as to render it practically prohibitory. The general abandonment of the outlying coaling stations came as a matter of course.

An alternative that presented itself was the purchase of coal, provisions, and other supplies necessary to the fleet in waging war from

neutrals at ports conveniently located near the theater of operations. But however advantageous such a course might appear from the commercial standpoint of the neutral, or to the belligerent actually receiving the aid at the time of need, it would still give to the other belligerent a cause of complaint against the neutral that is fraught with endless possibilities of trouble. Consideration of these questions has resulted in agreements being made among the civilized nations of the world which so closely define the rights and duties of neutrals in time of war as to practically preclude the dependence of belligerents upon neutrals for supplies of coal or provisions.

Likewise in our own country, when the so-called New Navy had its beginning in the squadron of evolution of 1890, there arose an agitation for outlying coaling stations so situated as to be of use to our growing fleet, and diplomatic plans were laid for the acquirement of the island of St. Thomas, Samana Bay in Santo Domingo, Mole St. Nicholas in Haiti, Monrovia in Liberia, Gorrita Island in the Rio de la Plata, a station in the Azores, and various stations in Pacific waters, such as Hawaii, Samoa, the Galapagos Islands, and certain ports on the China coast. But the deep-rooted objections of our people to territorial expansion beyond the continental limits of America, a short-sighted political policy of money saving, and a general apathy in regard to the crying needs of preparedness for war, prevented the fruition of these plans.

The Spanish War came on, not by any means without warning, but it found us unprepared in many ways, not the least of which was that we had no coaling stations near enough to Spain or the southern coast of Cuba to be of use to the fleet in blockade or protracted siege by sea. Whether or not this influenced Spain in her decision to send Admiral Cervera's squadron to Cuba may not be known, but once this move was started it became a matter of necessity for him to seek shelter in one of six harbors on the coast of Cuba. He chose Santiago, the one farthest removed from our coaling base at Key West. This move forced Admiral Sampson to establish a blockade of the port chosen by the enemy, and a nearby coaling station for the blockading ships at once became a necessity. A force of marines was sent to Guantanamo, the nearest available port, and a base was established where colliers and supply ships were enabled to lie snugly at anchor, and ships of the blockading force might coal and revictual therefrom in perfectly smooth water without going far from the scene of operation.

At Guantanamo no heavy guns were mounted for the defense of the base nor was the entrance mined. This was not necessary, for the available force of Spain was locked in at Santiago and Admiral Sampson held the key. But had Spain possessed a second squadron in West Indian waters or a few cruisers outside of the line of the

blockade, it might have been necessary for the force that held the base at Guantanamo to mine the entrance and mount temporary batteries to cover the mine fields and approaches to the harbor, in order to protect the base from hostile raids by such of the enemy's force as was free.

Guantanamo was in fact an *advanced base*, and had the enemy been strong enough to demand it, it would have been a *fortified advanced base*.

At Manila, Admiral Dewey forced the entrance to Manila Bay without an hour's delay, and winning the battle a few hours later, found himself in control of the Spanish base at Cavite.

But, if the Spanish guns on Corregidor, El Fraile, and Caballo Island had kept the American squadron off for days or weeks an advanced base would have been necessary in order to conduct the blockade of the Boca Chica and Boca Grande of Manila Bay, which must have preceded the successful completion of the mission. And had Spain's remaining ships from home gone through the Suez, as they later threatened to do, it would have been necessary to protect the harbor selected for such an advanced base by mines and guns, and these defenses would have required a considerable force to man them. Thus, before the decisive battle could have been fought the already short crews would have been depleted by the men landed to man the defenses of the temporary base, since the fleet was too far from its home to obtain a sufficient number from that source.

Thus, the experience of the Spanish War brought it sharply home to us that we were unprepared to meet an important phase that had come into naval warfare with the advent of steam power; but, considering the fact that our last strictly naval war had been fought in 1812 with sailing ships, and that we were notably weak in the lack of a general staff to plan strategy and grand tactics, this unpreparedness is not to be wondered at.

This defect was to some extent remedied after the Spanish War by the creation of the General Board, charged with the preparation of the fleet for war and plans for its employment in the various phases of possible naval campaigns.

Very early in the preparation of these plans it became evident that wherever the fleet should go in active war service away from our own coasts a base of some sort would be necessary. To have permanent bases scattered conveniently about the world and properly defended being out of the question by reason of the great cost and the large number of men required to adequately defend so many points, it soon became evident that some form of temporary base must be secured on or near the enemy's coast. It is an easy thing to take such a place from most countries, since none have all their ports and

sheltered waters defended, but it is quite another thing to keep such a base once it is taken.

The same experience has come to another great power embarking upon an aggressive naval warfare, for in the Russo-Japanese War the Japanese soon discovered that a naval power acting vigorously on the offensive at any considerable distance from the permanent naval bases on its own coast must, so to speak, "carry its base with it" or advance its bases into the enemy's country, and as a result we find Admiral Togo's fleet with its advanced base in the Elliott Islands, within striking distance of Port Arthur and the Russian fleet therein. This base was defended by mines and torpedo craft, and when the Russian cruisers sallied forth from Vladivostok to raid the Japanese coast guns were provided for the land defenses.

Such have been a few of the experiences of the past, from which we may lay a train of thought to the possibilities of the future.

Much has been said in the public press, in the halls of Congress, and in the mess rooms of the naval service of the possibility of a war with Japan.

For the sake of illustration let us suppose that Japan feels that her national hopes and aims, and even her very existence as a great nation, depend upon complete control of the Pacific Ocean, and that, flushed with the pride of victory over the great European nation of Russia, she stakes her existence and power in a war against the United States for the control of the Pacific.

After a few weeks or months of diplomatic discussion and wrangling, the length of which would in all probability depend upon the state of readiness of her navy, army, or treasury, the first news might come to us in the form of a notice that cable communication with the Philippine Islands is interrupted, and the next news from these islands might well be that an army of 100,000 Japanese had landed and captured Manila.

Such a condition would force us to move the battle fleet to the Pacific and begin operations against Japan. Whatever the route selected, the rôle of the fleet would be the same—to search out the Japanese fleet and defeat it and thus gain control of the sea. If by the Magellan route, or a few years later by the Panama Canal, the rallying point would doubtless be the Hawaiian Islands and thence to the Philippines. If by the Cape of Good Hope or the Suez Canal, the ultimate destination would be the same—the Philippines.

In either case, let us suppose that Manila and Olongapo have either fallen or are closely beseiged and blockaded by the enemy. It would then become necessary for our fleet to establish a temporary base within striking distance of the hostile fleet. This would have to be done immediately upon the arrival of our fleet in the Philippines and before an engagement with the hostile fleet. Every man aboard the

fighting ships would be needed, not one could be spared, and the lot of establishing and defending the advanced base selected would fall to an expeditionary force carried in transports along with the fleet.

While the scouts and armored cruisers search the seas for the enemy and locate his ships and their disposition, these transports with the colliers, supply ships, repair ships, and mining ships, would anchor in the harbor selected; the advanced base brigade would be landed with its guns, mines, and supplies and the entrance to the harbor defended as rapidly and completely as possible, while the battleships proceed to meet the enemy's fleet as soon as located by the scouts.

We must give the enemy the credit of all the foresight, skill, efficiency, and courage that we claim for ourselves, and, as a factor of safety, just a little bit more; and this being accepted, is is reasonable to suppose that his cruisers and lighter fighting ships will be ready to descend upon our selected base as soon as our battle fleet is out of sight. If our expeditionary force has done its work well, due to proper training in the times of peace before the war, the enemy's attack upon the base will be repulsed, and the coal, oil, food, and other supplies of our battle fleet will be held in readiness to replenish that fleet after the first battle and give it strength to continue the good work and carry the war on to the shores of the enemy. If, on the contrary, the expeditionary force is poorly trained in its duties, or ignorant of the details of the work required of it, the enemy's sudden attack may come before the defense has mounted its batteries and planted its mines, or may find the force that mans the guns and mines ill trained to the task and unable to withstand an attack, and the stores of coal, oil, and food may fall into the hands of an aggressive enemy.

Let such be the case, and the battle fleet, returning to its base after a drawn battle or even after a hard-won victory to refill its bunkers and revictual for another blow against the enemy, would find its supplies gone or destroyed, and the whole campaign would be lost, perhaps in spite of the most gallant and scientific efforts of the fleet itself.

Now, let us presume that our advanced base has been held against an attack of the enemy's cruiser squadron, that our battle fleet has met the enemy's fleet and gained a partial victory, that what remains of the enemy's battle fleet has retreated northward toward its home ports to refit in its well-stocked naval bases and yards, back of impregnable cost defenses, supported by a land force of half a million trained soldiers; the ships of our battle fleet must return to the advanced base and recoal, refit, revictual, transfer the wounded, and make ready to take advantage of the first victory and carry the war to the enemy's country.

The temporary advanced base would be of little use after this unless it were decided to recapture Olongapo and Manila Bay; but with a strong land force of the enemy holding these points and his fleet, though shattered still "in being," it would probably be poor strategy to attempt such a move at this stage of the game, since it would require the transportation of a large army across the Pacific with the control of the sea still in doubt.

The bold and aggressive move, always the best play on the part of the victor, would be to move at once to the coast of Japan, to blockade the enemy's battleships in their home ports with our main battle fleet, leaving enough cruisers to blockade the enemy at Manila, Olongapo, and Lingayan.

This move would again require an advanced base near the scene of the main operations, and it would probably have to be established on some island suitably located within striking distance, where the great preponderance of the land forces of the enemy could not be readily brought to bear against it.

To accomplish this the expeditionary force at the advanced base in the Philippines would rapidly dismount their guns ashore, lift their mines, and, with defenses and supplies, embark in their transports and accompany the battle fleet to the new base, there to repeat the problem of defense for a port of security for the colliers and supply ships of the fleet, and of refuge and refit for the battleships of the first line.

The defense of the advanced bases for the battle fleet at this stage of the campaign would be an undertaking full of danger, where efficiency and skill and training would count much for the success of the campaign and the safety of the Nation, where success would bring honor well earned under trying conditions, and where intelligent, loyal effort would be as important and as well paid as with the battle fleet itself.

If our fleet, supported by its base, should succeed in capturing or destroying the enemy's fleet or a large portion of it, or in bottling it up securely in its home ports, the command of the sea would be ours, and the next step would be to move our land forces across the Pacific to regain the Philippines.

Here, again, the navy must go first, and the battleships of the second line, the *Oregons*, *Kearsarges*, *Wisconsins*, and *Ohios*, refitted and assembled on the west coast, would form our second fleet, and with them would go another expeditionary brigade to seize, fortify, and hold the naval advanced bases that would be required in this secondary campaign.

Their first point to defend might be Guam or some port in the Philippines near Manila Bay, but the principle would be the same.

After all this, and only *after* all this, would come the Army for the land campaign.

Again, let us suppose that some European power with a growing surplus population, but hemmed in on all sides by the other powers of Europe so as to preclude the possibility of increasing its territory at home, should turn with longing eyes toward the broad domains of our sister republics in South America and attempt, on one pretext or another, to establish colonies there.

It is probable that a foothold would be obtained by the aggressive power before we could prevent it, and, in such a case, it would become our duty under the principles of the Monroe doctrine, the responsibilities of which we could not shirk, to drive out the invader and reestablish the supremacy of the South American government over its own territory.

Our nearest permanent base in the Atlantic would be Guantanamo, and it thus becomes evident that a temporary base would have to be taken near the scene of active operations. To do this would require the services of the advanced-base brigade with its complete outfit, accompanying the fleet, and ready to land and establish the base at any designated point as the circumstances of the case might dictate. The location of this temporary base would in all probability depend largely upon the enemy, since, as he is the aggressive party to the strife, he would naturally choose the point d'appui, and our base would perforce be within striking distance of such predetermined point.

In this case the base would be established, in all probability, within the territory of the friendly country to which our aid would be extended, but the question of defending it would be the same, since the real enemy, the aggressive European power, would doubtless at once attempt to capture it.

In the first stages this would again be a strictly naval campaign, since we could not with good prospects of success attempt to transport an army from our own shores to the disputed territory until our fleet should meet the enemy's fleet and wrest from it the control of the sea. Once this is done it would leave any army the enemy might have in the disputed territory entirely dependent upon local supplies and without the possibility of reenforcement, since the line of communication across the seas would be effectually cut; and hence it might be unnecessary to undertake a land campaign on a large scale, as an unsupported army operating overseas with no line of communications would soon find itself powerless and be forced to sue for terms.

Under such circumstances the establishment of the advanced base would have to be carried out with great dispatch, and in the face of the enemy, in order that the auxiliaries in the train of our fleet

could be efficiently protected before the enemy could attack our fleet while still hampered by its train and possibly cut off that train, thus depriving the fleet of its very life's blood before a decisive action had been fought.

As fleets grow in size and power, and as the increased facilities of communication between the nations of the earth constantly tend to bring the nations closer together, the distances which fleets may have to traverse in order to seek out an enemy become greater, and the size of the train of supply ships grow apace.

Colliers, supply ships, and repair ships, and torpedo craft both on the water and under it, are the necessary impedimenta of a battle fleet, but the fleet can not take this impedimenta into action with it; hence such craft must remain behind at the base, and the haven for them must be prepared before the first big sea fight of the battle ships.

Now, the battle fleet will take care of the enemy's battle fleet, if it does its duty; but the enemy may and probably will have swift crusiers which could descend on the defenseless colliers and supply ships and thus deprive the fleet of its means of life.

Hence, the advanced base once selected and seized, *must be adequotely defended.* The only question is, How? It is easy with unlimited money and labor in time of peace to erect permanent defenses for any port or harbor, but the place chosen as an advanced base for the fleet engaged in aggressive naval warfare, possibly far from the security of its home ports, may have to be put in a state of defense within a few days.

It has frequently been suggested that some of the battle ships might remain at the selected base for its defense, but this is not the purpose of the battle fleet—*its whole object in existence is "to capture and destroy the enemy's fleet."* This it can best do by keeping the sea in the greatest possible force, untrammeled by its supply train.

Thus it appears from a careful consideration of the naval campaigns of the recent past and the probable requirements of such campaigns in the future, that the *well-balanced fleet* toward which we are constantly striving must contain one more important element in addition to the ones now in existence, viz, a thoroughly equipped and trained advanced-base force, ready to accompany the fleet to any seas, and there seize the most available port, and then to place it in a state of defense without the aid of the battle fleet, and finally to hold it at all hazards against the attacks of the enemy's squadrons or raiding cruisers.

The port suitable and available for the advanced base being once selected, its defense must proceed with energy, certainty, and speed,

compared to which the deliberate fortifications of a harbor by trained engineers in peace times is a simple matter indeed.

Mines must be laid across the entrances, guns must be mounted, magazines constructed, earthworks erected and then concealed, searchlights and their power plants established to cover the entrances from sea and the probable landing places of an enemy's raiding force, wireless stations put up to keep in touch with the battle fleet that operates from the base, and the whole must be knit and tied together by a system of communications, embracing wagon roads, trails, telegraph and telephone lines, cable lines across bays and rivers, flag and semaphore signal systems by day and electric and other light signals by night.

Then the men who have erected these guns, planted these mines, run these lines of communication, must be thoroughly prepared to man them against a possible quick descent and attack by an active and aggressive enemy.

In addition there must be a mobile force of infantry and field artillery ready to meet a landing force of the enemy to the right, left, or rear of the defenses.

In the study of this question by the General Board and at the Naval War College it soon became evident that no one in the naval service is prepared in all respects to undertake the work required to establish an efficient advanced base; that the ships of the fighting line can carry only sufficient men to man the guns and engines in war time, and that none can be spared to man the defenses of a shore station be it ever so important.

It was realized, however, that in the Marine Corps the Navy possessed the nucleus of a force well adapted to the work in question, and many theoretical plans were drawn up which called for the use of from one to three regiments of marines for the defense of naval advanced bases. But, as it was at once recognized that the officers and men had had no special training fitting them to carry out the details of these plans, various schemes of special training were put forth.

In 1901 guns were taken from the battleships and mounted on shore by marines, and a class of officers and men was formed at Newport that year for instruction in the preliminaries of advanced-base work.

There was difficulty in getting money from Congress for the necessary guns and equipment, and old guns and makeshift apparatus were used.

In the winter of 1902–3 a regiment of marines went to Culebra to carry out a plan for its defense as an advanced base, and much excellent work was done.

In 1903–4 Grande Island, Subig Bay, was the scene of more work of this kind by the marine regiment stationed at Olongapo.

Again in 1908 the marines at Olongapo erected defenses at the entrance to Subig Bay, carrying out in detail the plans previously drawn up for the temporary defense of that port.

In 1910 a school was maintained at the deserted naval station near New London, Conn., where a small class of marine officers received instruction in subjects pertaining to advanced-base work; but owing to the lack of any plant suited to the work in hand, and an entire absence of guns, mines, and equipment, and the force of men necessary to handle them, this instruction was perforce all of a theoretical nature.

This resulted in the removal of the so-called advanced-base school to the marine barracks at the League Island Navy Yard, where the Marine Corps possesses a plant large enough to at least make a beginning in the consistent training of officers and men in the theory and practice of this important new element of the well-balanced fleet.

Thus it will be seen that we have in the last 10 years done not a little of the hard work required in the preparation for the defense of the temporary bases that the battle fleet may require in coming maritime campaigns; but a lack of proper coordination and of the proper material and, above all, a lack of systematic training and drill has prevented those spasmodic efforts from accomplishing the desired result.

Yet we should profit by our mistakes as well as by our successes and make a determined effort to establish this new element of the well-balanced fleet upon the same sure footing of excellence that characterizes in general the other important elements of that fleet. To do this requires the concerted action of everybody concerned with a realization that "the old order passeth" and that new duties and responsibilities appear.

Within the last year the Navy Department has definitely assigned the work of defending the advanced bases for the fleet to the Marine Corps and has ordered turned over to that corps the heterogeneous mass of material which has from time to time been set aside for this purpose, with the expectation that the officers and men of the corps will be trained to mount and fire the guns, to plant and explode the mines in the hour of need, to maneuver the light batteries, to operate wireless telegraph stations, telephone and telegraph lines, and semaphore, heliograph, and flag-signal stations, and to act as infantry supports on the flanks and to the rear of such defenses with the same promptness and efficiency as that which has characterized the work of the corps as naval light infantry in the past.

AN ESTIMATE OF THE SITUATION.

The first problem that presents itself in connection with a study of the general and special requirements of a naval advanced base is, as in all other military questions, a true estimate of the situation that confronts us in order to determine the force that will be required and the material that must be supplied.

1. When the battle fleet goes forth to search out the enemy's fleet and give battle to it, the train of colliers, supply ships, repair ships, mine ships, and hospital ships, and the torpedo craft and submarines that belong to it must accompany the fleet in order that they may be on the spot when required.

2. When the battle fleet, accompanied by its train, approaches the scene of active operations predetermined by the position taken up by the enemy's fleet, all of the vessels which can not take their place in the fighting line must be left at some convenient point where they will not hamper the ships of the fighting line during the engagement with the enemy, but still near enough to the scene of the battle to be available to the fighting ships after the engagement.

3. In order to bring the greatest possible force against the enemy in the first engagement, all of the fighting ships should be in the line of battle, hence none can be left behind to act as a convoy or defensive force for the ships of the train.

4. To leave the ships of the train without some form of adequate defense would simply place them at the mercy of a few swift cruisers of the enemy.

5. To meet these requirements the ships of the train may be left at some port conveniently near the scene of operations, which port may be defended against the raiding cruisers of the enemy by temporary defensive mines and batteries.

6. The enemy could not afford to detach any of the heavy ships of his fighting line to make a raid upon this improvised base, but he might send against it a division of swift cruisers and the landing force that these cruisers could carry.

Hence, the solution of the problem presented appears to be to carry with the fleet the guns, mines, and equipment, especially designed for the rapid defense of the ports selected, with the force of men requisite to put these defenses in place in the shortest possible time and to properly man and fight them.

Consideration of the hydrographic and topographic features of a large number of ports that might be available for this purpose, and of the probable force that a powerful enemy might be expected to bring against the defenders of such a port, indicates that the least strength of such a force should be about 2,600 men; that is, a brigade of two regiments at full strength. For the sake of definition we shall call this force the advanced-base brigade.

THE ADVANCED BASE BRIGADE.

The brigade of two regiments lends itself well to the object in view, since one regiment is needed to man the fixed defenses required for the defense of the base, the guns, mines, range finders, searchlights, wireless telegraph, field telegraph and telephone lines, magazines and ammunition service to the guns, and all that pertains to these defenses and their service and supply; while another regiment of approximately the same strength should be assigned to the mobile defense of the base, that is the infantry and field artillery which may be called upon to protect the flanks and rear of the fixed defenses from attacks by landing forces of the enemy.

Each regiment at full strength should consist of:

Field and staff:		
1 colonel	1	
1 lieutenant colonel	1	
3 majors	3	
1 captain, assistant quartermaster	1	
1 captain, regimental adjutant	1	
3 medical officers, U. S. Navy	3	
3 first lieutenants, battalion adjutants	3	
3 first lieutenants, battalion quartermasters	3	
Total field and staff		16
Company officers:		
12 captains	12	
12 first lieutenants	12	
12 second lieutenants	12	
Total company officers		36
Noncommissioned staff:		
1 regimental sergeant major	1	
2 regimental quartermaster sergeants	2	
3 battalion quartermaster sergeants	3	
3 battalion sergeants major	3	
3 hospital stewards, U. S. Navy	3	
Total noncommissioned staff		12
12 companies, each consisting of:		
1 first sergeant	1	
4 sergeants	4	
12 corporals	12	
1 drummer	1	
1 trumpeter	1	
85 privates	85	
Total enlisted men in each company	104	
Total in 12 companies		1,248
Total officers and men in each regiment		1,312

It will be noticed that the numbers given above do not agree with the United States Army standards for a regiment on a war footing, but this is due to the fact that the organization of the Marine

Corps is the same for peace and war, and as the fleet is at all times to be kept ready for instant service the advanced-base regiments must likewise be organized in peace as they will be required in active service, since there will be no time to bring skeleton companies and battalions up to full strength before taking the field. If more men are available at the date of sailing from the permanent home base, it would be better to add them to the force as additional companies than to attempt to change the organization of the permanent advanced-base regiments.

The first regiment of each brigade organized as above outlined must be assembled at some convenient and appropriate station and drilled to transport, establish, and handle the guns, mines, and appurtenances destined for the defense of the future advanced bases, with the same energy and skill that is displayed in the training of the crew of the modern *Dreadnought*, if any real efficiency is to result.

The second regiment of the brigade, which is destined for the mobile defense of the advanced base, should be of approximately the same strength as the first regiment, two of the battalions being armed and equipped as infantry and the third battalion being employed as field artillery, and assigned to man two batteries of four guns each, preferably high-powered modern field guns. With the exception of the field artillery battalion, this mobile regiment need have no special training other than that usually given to marines at the present shore stations, and it could be quickly assembled from the smaller marine barracks when necessary for maneuvers or when war becomes imminent.

To accomplish these plans for the assembling and training of the regiments which are to man the fixed defenses of the naval advanced bases several posts must be selected, at each of which at least one regiment of marines of approximately the strength already given in the table may be stationed and quartered. Posts to fulfill the requirements for this purpose must be suitably located on the coasts with respect to the great permanent naval bases of the country, accessible to good bases of supplies both naval and commercial, large enough to properly quarter a regiment of marines, have sufficient ground available for the necessary drills and instructions, have sufficient water for the transports to lie at docks near the barracks and storehouses, and have water near where drills in mining operations may be properly carried out.

Two such bases should be established at once, one on the east coast of the United States and one on the west coast; and ultimately the number may be so extended as to include two outlying stations, one in the Atlantic and one in the Pacific. The two home stations that naturally suggest themselves as most nearly meeting the requirements above mentioned are League Island on the east coast and Mare Island

on the west coast, while strategic and climatic conditions point to Guantanamo in the Atlantic and Pearl Harbor in the Pacific as sites for the outlying stations.

At League Island barracks now built will accommodate 2 battalions, or about 800 men, a sufficient number with which to begin the required training, and here the first advanced-base regiment is now being organized and the systematic training is soon to begin. There is ample space available at this station for the required drills both afloat and ashore, with buildings that may be used for storing the material, and docks at which transports may lie quite close to the barracks and storehouses, while the Marine Corps quartermaster's depot of supplies is located conveniently near.

At Mare Island the marine barracks will house about 1 battalion of 400 men, and an additional battalion might be quartered in tents throughout the year without particular discomfort until additional barracks could be built. There is ample space available for all of the required drills and exercises both afloat and ashore and docking space for the transports near by.

At Pearl Harbor barracks are being built which will accommodate 1 battalion of about 400 men, and there is ample space available for encamping several additional battalions. At the station and at other points on the island of Oahu the drills and exercises necessary in the training of the advanced-base regiment could be carried on throughout the year, and there is good anchorage ground for the transports near the encampment space.

At Guantanamo recent experience has shown that one or more regiments may be encamped with ease, and the diversified nature of the surrounding country is well adapted to the drills and exercises required in preparing the advanced-base force for its future duties. The bay affords excellent opportunity for mining exercises and drills with automobile torpedo batteries. The only drawback to this station is the climate, which for about half of the year is so hot and uncomfortable as to render out-of-door drills of the severe kind required in mounting guns and shore defenses almost impracticable.

It may be well to note in the consideration of the quarters available at any post that, while the quartering of men in tents is possible with a fair degree of comfort at any times except in severe winter weather, this method of quartering troops is very expensive in comparison with housing them in permanent barracks. The actual cost, exclusive of labor of all kinds, of quartering a battalion, officers and men, in tents in a semipermanent camp with the regulation camp equipage is $12,600; and the average life of the tentage in use under such conditions in the Tropics may be taken as one year at the most; hence the amount expended in less than 10 years on camp equipage would build a fine permanent barracks for the same num-

ber of men, or the amount expended in a camp in two years would build a good wooden semipermanent barracks.

However, in case Pearl Harbor is made the great naval depot of the Pacific, it may be necessary to assemble there at any time the whole advanced-base force of the Pacific, and to provide for such a contingency it would be well to have at the naval station there a camping ground fitted to receive a brigade of two or three regiments, with water pipes, latrines, sewers, and drains, and permanent buildings for use as kitchens, mess halls, and storehouses.

At some of the posts not selected for regimental stations the batteries of Field Artillery for the second regiments of advanced-base brigades should be stationed and the men carefully drilled in maneuvering them both by horse and man power and firing them both with direct and indirect fire. The men for these batteries must also be drilled in constructing hasty entrenchments and gun pits, in range finding and ranging the guns, and also in the use of machine guns attached to the batteries for the defense of the flanks.

THE ADVANCED BASE OUTFIT.

From time to time during the last 10 years certain guns, gun mounts, mines, searchlights, telegraph and telephone material, and other articles that have appeared to be suitable for use in the temporary defense of advanced bases for the fleet have been set aside for this purpose. The result is that we now have a large mass of such material, most of which is old, some of which is obsolete, and little of which meets in every way the requirements of the situation. If good results are to be obtained, the best modern ordnance, mines, and other material should be provided for his purpose and the whole outfit kept in a constant state of readiness for use; for it is just as important to have the best guns and material for the defenses of our temporary bases as it is to have the latest and best ordnance aboard the battleships and other fighting craft.

The object in view being the rapid defense of a temporary base for the battle fleet against a raiding force of the enemy, which may be presumed to consist of a squadron of cruisers and a landing force of one brigade at most, it is evident that the main batteries for the advanced base should consist of the largest guns that can be quickly carried ashore from the transports to the most desirable locations covering the approaches and entrances to the selected harbor and there mounted on temporary timber crib emplacements. Our experience has shown that the high-power 5-inch gun is about the largest that can be so mounted, hence all of the guns for the main batteries should be of this caliber. A smaller gun, that can be more readily transported and more quickly mounted, is needed for secondary batteries to sweep the mine fields and near-by beaches suitable as landing

places for the enemy, and the 3-inch gun seems best suited to this purpose.

The whole problem of stowing, transporting, mounting, and firing the guns for these batteries, as well as the question of their ammunition supply, is greatly simplified by the employment of but two calibers of guns for the fixed defenses, and as the 5-inch and 3-inch guns best meet the requirements of the situation no other calibers should be supplied.

A certain number of machine guns should be supplied for auxiliary defense at the positions of the fixed batteries as well as to accompany the Infantry of the mobile-defense regiment, and there should also be a few small rapid-fire guns for the launches employed as picket boats.

For the Artillery battalion of the mobile-defense regiment suitable field guns must be provided. The present naval landing gun is not well suited to this purpose, and the 50-caliber 3-inch gun is too heavy for a strictly field mount, although the transporting carriage already provided for it may have its uses in the general scheme for the defense of the base. All things considered, it is probable that guns such as those supplied to the light batteries of the Army Field Artillery are best suited to this purpose. These field guns should have the full equipment for drawing them by means of horses, with additional equipment for drawing them by man power in case horses can not be taken on the expedition and are not available at the scene of active operations.

The guns for the fixed defenses must be provided with the timbers for the gun platforms, cut, bored, and fitted with all necessary securing and holding-down bolts. Portable derricks with donkey boilers and engines must be provided for landing the guns and their mounts and other heavy weights at the most convenient landing place, and also for mounting the guns at the sites selected for the batteries. Suitable transporting trucks for both calibers of the larger guns and also skids and skid tracks will be necessary to move the heavy guns from the landing place to the battery sites.

A number of sections of light constructional railway track, with one or two small locomotives and a number of railway trucks, may be readily carried with the outfit, and will prove of great value in moving material for the construction of the defenses and for transporting supplies after the construction of such defenses.

A few 6-inch siege mortars or howitzers might prove of considerable value for indirect fire upon ships approaching to attack the defenses of the base, and they are readily transportable and require a more simple platform than the 5 and 3 inch guns already mentioned.

Complete outfits for range-finding stations for all of the batteries must be provided, with the necessary instruments and tools for de-

termining their proper positions with reference to the batteries and for setting them up.

Sufficient ammunition must be provided to render the defenses of the base independent of the fighting ships of the fleet in this respect, since the ships can only carry enough ammunition for their own use, and the batteries of the base may have to repel many attacks in the absence of the fighting ships of the fleet. Material for the construction of proper water-tight and weather-proof magazines near the battery sites, and possibly for reserve magazines, must also form a part of the outfit, together with all of the instruments necessary for testing the condition of the powder and the trucks and hand gear for transporting the ammunition from the magazines to the guns.

The mining outfit should contain a sufficient number of Army combination contact and observation mines to efficiently mine a channel at least 2 miles in width, and also a large number of naval-defense mines, with all of the necessary moorings, multiple cables, junction boxes, firing stations, and observation stations, while suitable small boats must be provided for planting the mines rapidly and surely.

The outfit for the signal service should consist of at least two portable wireless stations complete; instruments, wire, lance poles, insulators, and central stations for a complete system of telephonic connection between the different stations at the base; a similar outfit for field telegraph lines for the fixed defenses and also to be run as required between the fixed positions and any positions that may be taken by the mobile-defense forces; complete sets of visual signals, such as flags, shapes, semaphores, and heliographs, fitted for day and night use; Very's lights, rockets, Ardois lights, wink lights, and ordinary signal lanterns.

In addition to the usual amount of tools suitable for throwing up light field works and entrenchments, the force must carry with it a full supply of shovels, picks, axes, and tools for excavating the pits for the gun platforms and for the magazines, for cutting roads and trails, and for throwing up parapets to protect the guns after they are mounted; and in this connection horse-power plows, king drags, and dump shovels would prove of great value.

Portable searchlights, provided with the necessary power plant to furnish them with current, and insulated cable for carrying current to them from the transports or supply ships anchored at the base, will be an indispensable part of the outfit.

The complete regimental outfits will contain enough tentage and camp equipage to comfortably house the personnel of the advanced-base brigade in any climate, and to provide for a well-equipped field hospital.

The brigade must carry with it at least three months' supplies of provisions, and, in order that this amount may be available at

any time during the absence of the fleet, the daily supplies should be drawn from the supply ships at the base or from the surrounding country as far as possible, leaving the three months' supply as a reserve.

Above all, the material for the defense of the advanced base must be of a design that will permit of mobility; that is, must be such that it may be readily loaded upon the transports and carried to the location selected for defense, and rapidly erected there without complicated engineering appliances; and it must be so erected that in case of necessity, depending entirely upon the requirements of the battle fleet, it may be just as rapidly taken up, reembarked, and moved to some other location.

On this account it will be seen that the emplacements and mounts for the guns of a permanent fort, while they may be ever so well designed for that use, are not necessarily suited to our present purpose, and that practically all of the material will have to be especially designed and built to best suit this purpose. Experience gained in regular drills and exercises of the regiments assembled for advanced-base defense will indicate the best designs for the guns, mounts, mines, and other material, and the sooner we make a beginning in such systematic drills and exercises the sooner we will be in a position to know exactly what material we require, and to do the work when the occasion comes.

ADVANCED BASE TRANSPORTS.

In order that the advanced-base brigades may be enabled to accompany the fleet whenever and wherever the exigencies of the service or the fortunes of war may dictate, it will be necessary to have ships specially designed and fitted to carry all of the men and material required; and, while this is not the sole use to which naval transports may be put, it is the most important one, and if such vessels are properly fitted for this work they will be readily adaptable to any other.

Each such transport should be large enough to carry 1 regiment of 1,300 officers and men, and about one-half of the total outfit of material and supplies required for one entire advanced-base brigade, in addition to the regular crew required for navigating the vessel, of sufficient speed to accompany the battle fleet, and not too large to enter any harbor that might be seized as an advanced base.

Consideration of the experience of the past and probable requirements of the future indicates that a transport of the following characteristics would meet these conditions.

Tonnage.—About 15,000 tons displacement, loaded.

Speed.—Fourteen knots sustained sea speed, with a reserve of 2 or 3 knots.

Propulsion.—Reciprocating engines; twin screws, to facilitate handling in small harbors; to burn coal and oil.

Steaming radius.—Eight thousand miles at economical speed, to enable the transport to cruise with the battle fleet.

Battery.—To consist of 5-inch and 3-inch guns of the same type as those in the advanced-base outfit, in order that they may be landed to assist in defending the base if desired.

Quarters.—Cabins, staterooms, wardrooms, and storerooms for the naval officers attached to the ship and for all of the officers of a regiment of the size already given, with berthing space for the regular crew in one portion of the ship and for the enlisted men of one regiment in other portions of the ship, with adequate messing, cooking, distilling, and toilet facilities for this number of men for short or long periods of time.

Stores.—Fitted to carry one-half of the total outfit of one advanced-base brigade, with provisions for three months and cold-storage capacity for one month.

Magazines.—Large enough to carry one-half of the ammunition for the advanced-base brigade and explosive charges for one-half of the mines.

Electric plant.—Extra dynamos to be provided, with submarine cable to carry current from the ship at anchor in the harbor of the base to the searchlights of the defenses; a high-power wireless outfit to be provided in order that the commander of the base may keep in communication with the battle fleet, acting from the base.

Boats.—Each transport must carry a large number of boats for landing the men and material. Some of these boats to be specially designed for landing the heavy guns and their mounts, with several flat-bottom boats of the scow type for landing stores and material; the steam launches to be of the 50-foot picket-boat type, strongly built for rough work and with fair speed, in order that they may be used on occasions as picket boats off the entrance or in front of the mine fields, and to be supplied with small searchlights, mounts for small rapid-fire guns, and small wireless plants.

Cargo-handling facilities.—The hatches to be so arranged with reference to the holds and storage decks as to facilitate loading and unloading the guns and stores, with sufficient cargo booms and derricks to work all of the hatches at once if necessary.

Hospitals.—Hospital facilities large enough to accommodate the regular crew and the regiment assigned to the ship.

ADVANCED BASE AUXILIARIES.

Certain classes of vessels not required to remain with the active fleet in its search for the enemy, or which on account of their size or speed are not able to keep the sea with the battleships, may be used to great advantage in assisting the defense of the base.

Thus, submarines may be carried to the harbor selected for use as an advanced base on the decks of colliers and there launched for service at the base, as they could operate with excellent chances of success against any of the enemy's ships that might approach near enough to the harbor to use their guns against our defenses.

Again, the planting of mines at the entrance to the advanced-base harbor could be most expeditiously and efficiently accomplished from a special mine-laying ship, fitted to carry the mines and their explosive charges to the best advantage, and with proper launches for planting the mines and for recovering them when for any reason it becomes desirable to relinquish the base.

Some of the smaller destroyers might be attached to the base to act as scouts in the adjacent waters and give warning by wireless of the approach of the enemy, thus giving the defenders of the base ample time to properly receive him.

As the rapidity with which the harbor selected for a temporary naval base is put in an efficient state of defense is the first important consideration, every available means should be employed, and to this end the resources of the colliers, supply ships, and other vessels left at the harbor should be used to assist in the work, the boats being used to transport material and supplies ashore, and all men that could be spared being sent ashore to assist the working parties. The electricians of the ships would be especially valuable on such details, as their technical knowledge could be used to advantage in establishing wireless stations, searchlights, range-finding stations, and communication lines.

PREPARATORY DRILLS AND EXERCISES.

When the regiments destined for the defense of the advanced bases have been assembled at the posts herein suggested or at some other suitable posts and the material now available has been delivered at these posts, the next step will be to prepare these regiments for their future duties by thoroughly drilling them in all that pertains to the subject, from simple exercises in map reading and plan study to maneuvers with the whole advanced-base brigade in which the conditions of actual war are carefully simulated.

The theoretical instruction will include, as a matter of course, thorough instruction in ordnance and gunnery with especial reference to the guns, mines, material, and ammunition that will be used; an electrical course that will include dynamos, searchlights, wireless telegraphy, and electrical signals; and military field engineering with its applications to the work in question. Additional studies in military geography, topography, and hydrography will enable the officers to understand the problems of defense presented at certain fa-

vorably situated points on or near the coasts of possible enemies and to arrive at a solution of these problems.

The practical drills will proceed along with the theoretical instruction and should include exercises in loading the material aboard the transport in such manner that it may be most readily unloaded at the desired point; unloading the material in the manner that must be used in the time of actual war—that is, by means of boats from the transport at anchor offshore and without the aid of wharves and docking facilities; transporting the guns, mounts, and other material over smooth and rough ground; mounting the guns on their temporary emplacements and platforms under varying conditions; building magazines with the material provided for the outfit and under conditions similar to those that will apply in war; erecting and running searchlights and their generating plants; establishing and using range-finding apparatus, wireless telegraph stations, telegraph and telephone systems using both land lines and submarine cable, and making all necessary repairs to such systems; signaling with all of the various systems that may be used by day or night; and planting and controlling mine fields, using both the Army mine and the naval defense mine.

After the guns are mounted target practice should be held at towing targets under conditions closely simulating those that will obtain in case of an attack upon a temporary base by the enemy's ships, and at all times the gun's crews should receive systematic preparatory training with the dotters and mechanical targets and at the usual loading drills.

The next step in the preparation should consist in maneuvers on a scale approaching that of actual warfare, such maneuvers being to the advanced-base brigade and its outfit and material what the battle practice of the fleet is to its crews and ships.

For this purpose the regiments with their outfit and material would be embarked in the transports and taken to some suitable harbor for which the defense plans have been previously worked out and here the whole command would be exercised in establishing and defending the base in accordance with these plans. To avoid tiresome repetition and the following of but one set of plans in this training, a different harbor may be selected for each such exercise.

On the east coast Guantanamo, Culebra Island, Bahia Honda, in Cuba, and several ports in Porto Rico are available for these maneuvers; while on the west coast admirable sites are to be found on Puget Sound, at San Diego, Cal., and, farther away, in the Hawaiian Islands, Guam, or the Philippines. In the Atlantic the maneuvers would appropriately be coincident with the winter maneuvers of the Atlantic Fleet, and in the Pacific a squadron of cruisers could accompany the transports and assist in the maneuvers.

For such maneuvers it will not be necessary to take the entire advanced-base brigade, but an assignment of, say, two battalions of the fixed-defense regiment and one battalion of the mobile-defense regiment may be taken, leaving the other battalions at their home stations to carry on the work there. A systematic exchange of officers and men between the regimental posts of the Marine Corps and the smaller posts and the ships will result in time in disseminating the knowledge and training required for this important work throughout the corps.

In conclusion, it is well to remember at all times that the work herein outlined is strictly naval in its reasons and details, and work which can only be successfully carried out by officers and men having considerable naval and sea training; and that these defenses will always be of a temporary character dependent upon the movements of the battle fleet, and necessarily under the absolute control of the commander in chief of that fleet. However, the advance base regiments should never be considered as in any way forming a part of the crew of the transports, but must at all times be under the military command of their own officers to secure the proper control, discipline, and uniformity of action.

The senior in command of the forces at the base should receive his orders and directions from the commander in chief of the fleet and be responsible to that officer for all that concerns his men and the material they use. This will preclude the confusion likely to arise from the shifting of command if each commanding officer of ships visiting the base were allowed to assume command thereof.

The transports and their crews should be under the command of a naval officer, who would receive his orders from the commander in chief of the fleet, but not exercise command over the forces on shore at the base.

Objections have been advanced that the service above outlined for the marines would preclude them from possible participation with the Army in the strictly military land operations that follow the conquest of the sea; but, far from it, the service thus performed by these marine brigades in defending the advanced bases for the Navy would make them the best seasoned troops under the flag; and their duty in the first phase of the campaign—the strictly naval phase—completed, they would be ready to join an army of invasion, welcome additions to such a fighting force, ready to profit by their varied experiences in the opening actions of the war.

It is a great opportunity for the Marine Corps to do an important work for the Navy and as a part of the Navy, embracing as it does every branch of the soldier's trade—engineering, ordnance, gunnery, heavy artillery, field artillery, infantry, and signal corps—so applied as to require, in addition, a considerable knowledge of the sailor's

craft; and if the work is well and properly done, it may be the weight in the balance on our side that will give us the victory in a naval war of the future.

In the interests of the common good, the misunderstanding that has from time to time appeared between the sailor and the marine must vanish. The sailor must realize that the marine is an important part of the Navy and has his work and duty therein, and the marine must learn to consider the sailor as his friend and brother in arms, glad to have the marine help in the great work of the naval defense of the country and ready to help him do it.

In the old days the part assigned to the marine was to be a sharpshooter in the tops and along the rails, to pick off the officers and navigating crew from the decks of the near-by enemy ship, a roll that has disappeared as completely as the swashbuckling topsail yardman of the frigate of 1812.

The new marine must be trained as carefully as any member of the crew of the *Dreadnought's* 14-inch turret or of the engine-room force far below that turret; he must know his duty instinctively, whether it be at the key that will explode the dreaded mine beneath the approaching ship of the enemy, at the breech of the gun that covers the field where the mine lies, or at the signal post that flashes the warning of the approach of the enemy or the signal for his destruction.

To perform these new duties well requires him to be more than the land soldier; he must know the life of the sea, the fighting habits of the sailor, what the sailor can do, and how he may be expected to do it; and there is but one way to learn all this—by daily lessons aboard the ships of the battle line. Hence, if the marine of the future is to act well his part in the drama of naval warfare and hold the base for the protection of the coal and supplies of the battleship fleet against the most determined attacks of an aggressive and determined enemy, he must receive an essential part of his training aboard the ships themselves, at least enough to make him understand that he is an integral part of the greater Navy and what that Navy expects from him. And if he learns this lesson well and is helped to learn it by the active cooperation of the other elements of the naval service, he may have ample opportunity to repay his comrades of the fighting ships of the line, when, on some hostile isle surrounded by the raiding cruisers of the enemy or on the hills surrounding an enemy's harbor and hard pressed by the shore forces of a persistent foe, he holds the rough line of defenses that guard the coal and food and the sick and wounded of his country's fleet.

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