

THE JOINT ARMY-NAVY PROBLEM IN THE PACIFIC.

Especially with Reference to the Naval Features as Exemplified by Problems Solved and Maneuvers
Held at the Naval War College.

by

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DECLASSIFIED IAW DOD MEMO OF 3 MAY 1972, SUBJ:
DECLASSIFICATION OF WWII RECORDS

28 May, 1926.

Address delivered at Army War College on
29 May 1926 -

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There has been a generally growing appreciation on the part of Army and Navy Officers of the necessity for a closer understanding of the joint problems which will face the combined services should there be another war. What is of more importance than the mere incident that such an appreciation does exist, is the recognized fact that the understanding between the Army and the Navy must not be left until war is actually upon us, but that now is the time to work together and make joint plans for operations that might be necessary at a future date.

It is the fact of this understanding that has led the Commandant of the Army War College and the President of the Naval War College to cooperate during the last few years in the study of a possible future situation in the form of a BLUE-ORANGE War. It is also the fact of this understanding that brings me here today, - to give to you some of the results obtained from this cooperative study insofar as the Naval War College is concerned.

Prior to the adoption of the present Basic War Plans, practically all problems relating to the early stages of a BLUE-ORANGE War, which were solved at the Naval War College, were based on two assumptions, namely:

First; That MANILA BAY would fall into ORANGE hands almost immediately on a declaration of war.

Second; That a period of approximately six months would elapse before the BLUE Fleet with a large expeditionary force could start for the WESTERN PACIFIC.

With these assumptions, the concensus of opinion of a large majority of the solvers of the problem which involved the movement of the BLUE Fleet across the PACIFIC, was that the operation would necessarily be a step by step affair via the HAWAIIAN ISLANDS, the MANDATE ISLANDS (sweeping them up as the Fleet advanced), thence to some base in the PHILIPPINES, south of MANILA, from which active operations to retake that place could be inaugurated.

It was recognized by all students of the problem, that such a program on our part would be greatly to the advantage of ORANGE, and greatly add to the difficulties of BLUE.

The awakening of the authorities to the necessity for the afore-mentioned cooperation between the Army and Navy, led to the establishment of the Joint Army-Navy Board of which General Pershing was the Head. This Board reported to the secretary of War and to the Secretary of the Navy a joint basic plan which involved assumptions very different from those previously in vogue. These assumptions are:

First: That MANILA BAY should be made available for the BLUE Fleet on its arrival in the WESTERN PACIFIC.

Second: That in order to assure this, the BLUE Army and Navy in the FAR EAST should work in co-operation to hold MANILA BAY.

Third: That there should be available at the HAWAIIAN ISLANDS in fourteen days after a declaration of war an expeditionary force composed of 50,000 army troops and 22,000 marines.

Fourth: That the BLUE Fleet would conduct this expeditionary force to the WESTERN PACIFIC at the earliest practicable date.

These are the assumptions which have been used at the Naval War College during the past three years for the basis of the general situation given in the statements of the problems to be solved.

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Prior to going more into details concerning the problems, it would seem desirable to point out the method of solving problems at the Naval War College. There are no Committee solutions. Instead, each individual officer solves the entire problem in the form of an Estimate of the Situation. He draws up his general plan; sets down his decision and minor decisions; and from these decisions formulates the orders to his forces. At the same time the War College Staff makes a solution of the same problem, and this solution is used as a basis of comparison and discussion. Two of the Student Officers' solutions are used in the chart maneuver. When the maneuver is completed, the slides showing the detailed moves are thrown on the screen and the freest discussion is encouraged. There is then made by the Head of the Department, a general summary in the form of a critique, together with the lessons learned and conclusions reached.

The Naval Officers who attend the course at the Naval War College have not the advantage of the more or less elemental courses such as are enjoyed by the officers of the Army prior to attendance at the Army War College. Therefore, the solving of strategic problems at the Naval War College ^{has one} ~~have~~ as their ~~chief~~ motives the training of officers in logical reasoning so as to insure the arriving at sound decisions which can be clearly expressed in orders to their forces. ~~However,~~ It has been found that by using situations that might occur in war, there is gained by all concerned a better knowledge of our own forces and those of the enemy together with their potentialities. And, in addition, study of these War College

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solutions and chart maneuvers by the War Plans Division of Naval Operations, and by the Commanders-in-Chief of our Fleets, ~~may~~ materially assist them in drawing up their basic plans. With this in view, there are injected each year into the statements of the problems certain situations which differ to a more or less extent from the situations of the previous years.

To obtain the proper relationship between the Army and Navy in the cooperative measures necessary for a successful BLUE campaign in the PACIFIC in the early stages of a BLUE-ORANGE War, requires the solution of two problems. The first of these is that involving an attempt on the part of ORANGE to capture the MANILA BAY Area, in order to deny the base to BLUE. The second is that of the advance of the BLUE Main Fleet with ^{or without} the Army Expeditionary Force into the WESTERN PACIFIC in order to secure a base for further operations against the ORANGE vital lines of communication. Accordingly representatives of the two War Colleges drew up an agreement in regard to the joint problem, which was approved by the heads of the two institutions.

In accordance with this agreement, the first problem involved an ORANGE advance on the PHILIPPINES. The statement for the ORANGE Naval Commander to solve had as a basis for the Special Situation, a plan drawn up by a committee of officers ^{here} at the Army War College, as follows:

ORANGE SPECIAL SITUATION.

The ORANGE General Staff Plan for war against BLUE provides for launching the war as a Strategic surprise. To accomplish this it is planned to have an Expeditionary Force arrive off LUZON prior to the declaration of war. The Mission of the Commanding General of the ORANGE Armies with this Expedition is: "In cooperation with the Navy, to seize the MANILA BAY Area".

The plan of operations for the ORANGE land forces is:

(1) PHILIPPINE Expedition.

(a) LINGAYEN GULF: One army of four divisions and army troops will land on D plus 1 day and advance South and seize MANILA; and in cooperation with other ORANGE Forces, deny to BLUE the entrance to MANILA BAY.

(b) BATAAN Coast: One army of two divisions, heavy artillery and auxiliary troops will land in the SUBIG BAY region (BAGAC BAY) on D day, seize BATAAN PENINSULA, and in cooperation with other ORANGE Forces deny to BLUE the entrance into MANILA BAY.

(a) Demonstrations in support of the LINGAYEN and BATAAN Operations:

(a) ANTIMONAN: A force composed of one division (less 1 brigade and cavalry regiment) will effect a landing in the ANTIMONAN region, East coast of LUZON, on D day. The available air force will operate actively in the region of MANILA BAY. Infantry will be landed in strength and preparations simulated for an advance in force on MANILA via ANTIMONAN route. This expedition will be withdrawn at the expiration of D plus 2 days, for service elsewhere as may be directed later.

(b) MANILA BAY: A demonstration in force against the defenses of MANILA BAY, to include bombardment by capital ships, is to be carried out by the Navy on D day, preferably at dawn, twenty-four hours before the attack at LINGAYEN. The main body of the force thus employed will retire not later than dark of D day.

The special situation given the BLUE Naval Commander in ASIATIC WATERS to solve was also ^{partially} based on a plan drawn up by a committee of officers at the Army War College, as follows:

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BLUE SPECIAL SITUATION.

As provided by the contributory Naval Operation Plan of the Commander-in-Chief, BLUE ASIATIC FLEET, Admiral Q has conferred with the Commanding General, PHILIPPINE Department. They have agreed that the BLUE Fleet in ASIATIC WATERS will act in cooperation with the Army:

(1) To obtain information of the approach of ORANGE Forces south of the Latitude of the PESCADORES. Any ORANGE movement in force south of this line to be considered hostile.

(2) To make no attack by the Navy in force unless ORANGE comes south of the Latitude of OLONGAPO or attempts to land on the BATAAN PENINSULA. In such contingency, the NAVY to take such action as the Commander-in-Chief, BLUE ASIATIC FLEET (Admiral Q) deems best, keeping in mind that the BLUE General Plan requires the joint forces in the PHILIPPINES to maintain possession of MANILA BAY. In accordance with the above, ORANGE transports will be the primary objective. If ORANGE Fleet is not accompanied by transports, BLUE ASIATIC Fleet will assemble in MANILA BAY with the object of sinking ORANGE warships by submarine and air raids.

For both the BLUE side and the ORANGE side these special situations were in a number of respects different from those given in the problem of previous years. The chief differences are:

In the situation of two years ago, the ORANGE Expeditionary Force did not sail from the INLAND SEA until thirty days after a declaration of war, while last year and this year the ORANGE forces sailed prior to a declaration of war in an endeavor to effect a strategic surprise.

On the BLUE Side two years ago, no provision was made for any agreement between the Army and Naval Commanders in the PHILIPPINES as to how they would cooperate, the Naval

Commander being left free to make his plans independently. This year the problem statement required a certain amount of cooperation between the two commanders.

After the problem was solved and maneuvered this year, the situation at the end of this maneuver was used here at the Army War College as the basis for gaming the landings ~~on~~ ^{on Luzon} LUZON of the ORANGE Army Detachments. I am not going into details in regard to the Naval chart maneuvers of this problem, but simply state a few points of interest.

In regard to the ORANGE plan of attempting to inaugurate the war as a strategic surprise, it developed that such an attempt would probably be impracticable if there had been a period of strained relations preceding it. Although the BLUE naval forces in the PHILIPPINES are lamentably weak, they are sufficient, if properly disposed, to get early information of the approach to LUZON of any ORANGE force of considerable size. It was also found that the requirements to make a strategic surprise under such unfavorable chances for success, was a great handicap to the ORANGE Naval Commander in making plans for the conduct of the Expedition, as it prevented him from taking advanced offensive action.

The second point which seems worthy of referring to, was the requirement that there should be several detachments of the ORANGE Expeditionary Force. Here again the ORANGE Naval Commander had difficulty, because, unless his naval escort and air detachments which were available to accompany the expeditions were of sufficient strength, it was practicable for BLUE, by concentrating his entire force against the weakest ORANGE detachment, to inflict severe damage.

The BLUE plan which required agreement between the Army and Navy commanders in the PHILIPPINES is a great step in advance of what we had done in previous years. Whether or

not we agree with that part of the plan which provided that the naval forces would not attack in force unless ORANGE comes south of the latitude of OLONGAPO, the mere fact that such an agreement was made developed the necessity for still more thorough agreement between the Army and Navy as to how the BLUE Naval detachment in the PHILIPPINES should best be used in order to hold MANILA BAY in cooperation with the Army.

On Screen - BLUE Staff Solution Plan for Defense of PHILIPPINES.

There was practicable unanimity of opinion on the part of the solvers of this problem that the decision of the BLUE Naval Commander-in-Chief, arrived at in the Naval War College Staff Solution, is correct for the situation as presented. This decision is:

DECISION:

TO SUPPORT THE LAND DEFENSE OF LUZON BY FURNISHING BLUE ARMY INFORMATION OF THE APPROACH OF ORANGE FORCES AND BY ATTACKING IN STRENGTH ORANGE TRANSPORTS APPROACHING THE MANILA BAY AREA, IN ORDER TO HOLD MANILA BAY.

If in reality this decision is the correct one for the Naval Commander, it is seen that how, when, and where, the naval forces are to support the land defenses are questions of prime importance to the Army, and ones in which there should be a definite agreement.

Summing up, BLUE NAVY'S GENERAL PLAN EVOLVED IN THE STAFF SOLUTION IS AS FOLLOWS:

Naval War College

(a) TO OBTAIN INFORMATION OF ORANGE MOVEMENT TOWARD LUZON AND PREVENT SURPRISE BY MEANS OF AN INFORMATION DETACHMENT COMPOSED OF SUBMARINES AND AIRCRAFT DISPOSED ON THE PRATAS REEF - BATAN ISLAND LINE BY DAYLIGHT 29 JANUARY. THIS DETACHMENT TO OBTAIN THIS INFORMATION SECRETLY IF PRACTICABLE AND TO REMAIN ON THIS LINE UNTIL WITHDRAWN ON ASSURANCE THAT ALL ORANGE FORCES CONNECTED WITH THIS IMMEDIATE OPERATION HAVE PASSED.

(h) TO OBTAIN LATER INFORMATION OF ORANGE MOVEMENT BY AIR PLANES OPERATING FROM BOLINAO AND POLILLO TO A DISTANCE OF 180 MILES TO SEAWARD FROM THOSE PLACES.

(c) TO OBTAIN LATEST INFORMATION BY DESTROYERS PLACED ON A LINE TO THE NORTHEASTWARD AND SOUTHWARD OF SCARBOROUGH SHOAL.

(d) TO EMPLOY ALL OF OUR REMAINING DESTROYERS, SUBMARINES, AND AIRCRAFT (INCLUDING ARMY UNITS) IN CONSECUTIVE CONCENTRATED ATTACKS AGAINST ORANGE TRANSPORTS THAT APPROACH THE MANILA BAY AREA TO THE SOUTHWARD OF OLONGAPO.

(e) TO EMPLOY THE HURON, GUNBOATS AND DISTRICT CRAFT IN COOPERATION WITH THE ARMY IN MANILA BAY.

It must be appreciated that the BLUE ASIATIC Fleet is so weak that its ability to inflict damage on ORANGE is very limited. The destroyers lose much of their supposed potentialities owing to the large number of ORANGE high speed light cruisers which would be available to operate against them. The air forces and submarines are practically the only means for making successful attacks on ORANGE convoys. These forces also are very weak. Therefore it is important that the agreement between the Army and Navy Commanders in the PHILIPPINES determines whether or not this weak naval force should expend itself in doing as much damage as possible against ORANGE in an attempted landing at LINGAYEN or BATANGAS, or whether it can be of more certain value by keeping itself intact with a view of preventing ORANGE forces from landing on the BATAAN PENINSULA.

Other points of agreement that require study and decision by Army and Navy Commanders are:

1. Cooperation between submarines and shore defenses at the points of landings.

2. The best way for those vessels which are not suitable for attacking ORANGE forces outside of MANILA BAY, to employ their very considerable gunpower in supporting the ARMY from positions inside MANILA BAY.

3. A clear understanding of the control of airforces in joint tactical operations in which naval aircraft, army aircraft, and surface craft are operating simultaneously in the same area.

We will now consider the second problem which involves the advance of the BLUE Main Fleet across the PACIFIC.

(#2 - On Screen - Chart of Pacific.)

In making up the statement of this problem for solving, the special situations in the PHILIPPINES for both ORANGE and BLUE were taken from the results of the maneuver which was played at the Naval War College. This was the situation used at the Army War College for gaming the landings of the ORANGE Armies.

In comparing the situation as given in the problem statement of this year we find some differences from the situations of last year and of two years ago.

In this year's situations, you will remember that GUAM had not capitulated simultaneously with the ORANGE landings on LUZON due to the different plan which required the GUAM expedition first to make the demonstration at ATIMONAN.

Two years ago we considered that ORANGE had taken considerable advance action in the MANDATE ISLANDS in accordance with plans of the ORANGE General Staff. The result of this action was:

(a) In TRUK a fleet base defended by 6" guns and one-half an Army division was being established.

(b) In JALUIT, WOTJE, RONGELAB, ENIWETOK, GUAM, secondary bases for light naval and air forces were in the course of establishment with sufficient defense, gun and troop, to withstand a light cruiser raid.

(c) In the PELEWS a secondary base defended by shore artillery and 2,000 troops.

(d) Numerous stations for supplying gasoline to aircraft were established in various Islands of the MANDATE Group and the MARIANAS, and 200 planes were at the PELEWS, MARIANAS, and TRUK for distribution as the ORANGE Admiral desired.

In both this year's and last year's problems the situations for ORANGE in the PHILIPPINES are similar; but, instead of having bases and forces widely distributed in the MANDATE ISLANDS, there were none there, - it being left to the ORANGE Naval Commander-in-Chief to decide what bases, if any, in the MANDATE ISLANDS he would use, and what operations should be undertaken in that area.

In all three years there were ORANGE submarines observing off the HAWAIIAN ISLANDS.

In the BLUE Situation for last year, it was assumed that the BLUE Main Fleet with the Army and Marine Expeditionary Force of 72,000 men embarked in transports, - a grand total of over 400 ships, - were ready to sail from the HAWAIIAN ISLANDS on D plus 14 days. The estimated minimum time that the MANILA BAY Area could hold out was given as 40 days after an ORANGE landing on LUZON.

This state of preparedness allowed BLUE was manifestly far in advance of what we can really expect. It was used because our basic plans then provided for it, in the hope that something might be done to improve our peace time efforts in this line.

With the assumption of this state of preparedness on our part, the estimates made by the War College Staff, which were concurred in by the large majority of student officer solvers, showed a conviction that the BLUE Fleet when mobilized in its maximum strength could escort this large Army expeditionary force into the WESTERN PACIFIC, and, if an early enough start could be made, could probably relieve MANILA. Whether or not this relief could actually be done, would depend, of course, on how long MANILA could hold out, And, as all of you know, opinion on that question widely varies.

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In all three years there were ORANGE submarines observing off the HAWAIIAN ISLANDS.

In the problem of the past two years, BLUE was considered to have mobilized in the HAWAIIAN ISLANDS 13 days after a declaration of war, her entire combatant fleet, an Army and Marine Expeditionary Force of some 77,000 men, a greatly augmented air force over our actual conditions today, and many auxiliary vessels. In fact, the situation was one in which we would like to find ourselves at the outbreak of war, but which we all realize is beyond any hope of fulfillment. This fully mobilized fleet was so much stronger than the ORANGE Fleet in toto, that with a few exceptions, practically all solvers decided to proceed immediately with this entire force for the relief of MANILA. From a study of the solutions and the chart maneuvers of those two years, the conclusions reached by the Director of the Maneuver was that such a fully mobilized BLUE Fleet could accomplish its mission provided (1) An effective information service were maintained; (2) The protective and defensive screening plans were good; (3) Routes were taken which made it impracticable for ORANGE land based planes to operate successfully against it; (4) offensive action were taken against ORANGE combinations; (5) The entire combatant strength, other than that used for offensive screening operations, for the service of information and possibly for false screening, were kept concentrated.

But this year the situation was different. As the basis for the BLUE state of readiness at the outbreak of war, a mobilization plan was used which seems more within the realm of probability. That is, by considering the day mobilization is ordered as the zero day, BLUE was given at HAWAII, 30 days after this order, only such units of the BLUE Fleet as it would be practicable to have assembled there by that time under present day conditions. It is significant that with this assumption BLUE actually had ready for sailing from the HAWAIIAN ISLANDS on M plus 30 days, her peace basis Battle Fleet, augmented by the two divisions of light cruisers, and the two squadrons of destroyers from the Scouting Fleet, and such vessels of the Fleet Base Force and Control Force which actually could reach HAWAII by this time, were this situation actually to have accrued this calendar year. The only exception to this was in that the two first line plane carriers and the proposed ZR-4 were considered to have been completed and in commission.

The rate of reenforcement of the BLUE Fleet was in accord with what is considered practicable today in accord with the personnel mobilization plans and other conditions which affect the placing of a large number of ships in commission, and in assembling a large train. The fact that three BLUE battleships are laid up for modernization was ignored.

An important feature with respect to the different situation presented in this year's problem, is in the consideration that it would be sixty days after mobilization was ordered before the army and marine expeditionary force would be ready to sail from the HAWAIIAN ISLANDS.

Another important difference between this year's and last year's problem is in the fact that the numerical strength of air forces were not projected so far into the future. This year there were no merchant ships converted into auxiliary plane

carriers, and auxiliaries were not fitted with planes as was previously the case. In fact, the BLUE air situation as given is believed to be in accord with what we might actually expect it to be in two years from now.

As in previous years, there was given an estimate of the minimum time it would take ORANGE to capture MANILA BAY, or to make the entrance impracticable for the BLUE Fleet. This will always be a consideration for the BLUE Fleet Commander-in-Chief, and the urgency for relieving MANILA will always be one of his chief concerns. Irrespective of minor differences in the general situation that might actually confront the C-in-C, he can not overlook the fact that the joint task of the Army and Navy in the PHILIPPINES is to HOLD MANILA BAY, and that the purpose in holding MANILA BAY is to afford a base from which the BLUE FLEET can operate to carry out the general concept of the war.

We find that under this more probable limited state of Preparedness allowed the BLUE Forces, practically all the BLUE solvers found that the Mission of the BLUE Naval Commander-in-Chief remained the same as was the case in the previous situations when an abnormal state of advancement was allowed.

In the BLUE Staff Solution, the Mission derived by Admiral A is: TO ESTABLISH THE BLUE FLEET IN SUPERIOR STRENGTH TO ORANGE IN THE WESTERN PACIFIC PREPARATORY TO FURTHER OPERATIONS FOR GAINING COMMAND OF THE EASTERN ASIATIC SEAS.

This Mission indicates that Admiral A understands that eventually he must gain command of the EASTERN ASIATIC SEAS, but that this is too much of an undertaking from his base at the HAWAIIAN ISLANDS. He must first get his fleet nearer these seas, after which a new situation will present itself, due to the events which happen during the elapsed time. A new estimate of the situation will then be essential, based on this new situation.

When it comes to determining the best Mission for the ORANGE Naval-Commander-in-Chief, a different situation is met. Here we find a number of BLUE officers attempting to place themselves in ORANGE shoes and reason from an ORANGE viewpoint, admittedly a very difficult thing to do. In deriving the ORANGE Mission, Admiral OA was bound by certain decisions of the ORANGE General Staff which presumably came from the ORANGE basic war plans. These ORANGE Staff decisions were improvised by the framer of this problem statement, and are a combination of certain committee plans made at the Army War College, certain items from previous problems played here at the Naval War College, and certain new ideas injected from experience with previous games for the purpose of giving a somewhat different situation from the problem of last year.

However, there is one similarity in all the ORANGE basic plans that have been used during the last few years. This is that ORANGE will conduct an OFFENSIVE-DEFENSIVE campaign against BLUE. There are a number of officers who believe that ORANGE will not adopt such a plan, but instead will assume a purely DEFENSIVE role, establish its fleet at or near TSUSHIMA and there await the advance of the BLUE naval forces. If we made up a problem on that assumption the advance of the BLUE Fleet across the PACIFIC would not involve any particular risks and there would be no advantage in playing as a chart maneuver this first phase of the war. This much seems certain. If the ORANGE basic war plan contemplates the capture of MANILA, and if MANILA BAY has not fallen when the BLUE Fleet approaches the WESTERN PACIFIC, ORANGE will be bound to take Offensive action against the BLUE Fleet or stand the chance of losing her entire PHILIPPINE Expedition. So just as long as we use as an assumption that ORANGE will assume an offensive-defensive attitude by

attempting to take MANILA, so we must also assume that if the BLUE Fleet can make an early enough start, the ORANGE Navy will have to take offensive operations against it in order to save their PHILIPPINE Expedition.

In the BLUE Staff Solution in considering Enemy Forces, the Mission under which the ORANGE Naval Commander would probably be operating was derived as:

"To prevent BLUE from establishing her fleet in superior strength within our vital sea areas (close to or within the EASTERN ASIATIC SEAS), in order to maintain control of these waters."

It was generally recognized by solvers on both sides that BLUE outstanding advantages in strength are:

1. Greatly superior fighting strength of capital ships.
2. Her more numerous destroyers.
3. Her offensive strategical attitude.
4. The practical concentration of as much of her fighting strength as she desires.

The BLUE outstanding points of weakness on which there was general unanimity of opinion are:

1. Lack of Battle Cruisers.
2. Inadequate number of Light cruisers.
3. Lack of bases for future operations.
4. Long lines of communications,
5. Logistic difficulties.

There was unanimity of opinion that the greatest of ORANGE strength factors are:

- 1.. Her fine strategic position, both geographically and defensively, with its advantage of interior lines.
2. Her four battle cruisers.
3. Superiority in numbers of light cruisers.
4. General Speed superiority in types of ships.

The chief points of ORANGE weakness pointed out are:

1. Inferior fighting strength.
2. A national defensive attitude.
3. A long frontier.

The conclusion as to the ORANGE most probable intentions, should the BLUE Fleet sail immediately was:

TO ENGAGE THE BLUE FLEET IN A FLEET ACTION AS IT NEARS A DESTINATION IN THE PHILIPPINES EMPLOYING ORANGE MAXIMUM STRENGTH SUPPORTED BY LAND BASED AIRCRAFT OPERATING WITH THE ORANGE ARMY IN THE PHILIPPINES.

THE OPERATIONS FOR CARRYING OUT THIS GENERAL PLAN WOULD PROBABLY BE:

SEIZE GUAM AND USE IT IN CONJUNCTION WITH THE BONINS AND PELEWS AS THE LINE FROM WHICH TO BASE THE INFORMATION SERVICE.

ESTABLISH SUBMARINE BASES AT THE PESCADORES AND THE PELEWS MAKE A DETERMINED CONCENTRATED ATTACK AS BLUE CROSSES THE PHILIPPINE LINE WHETHER IT BE NORTHABOUT, SOUTHABOUT, OR THROUGH THE ISLANDS. SUBMARINES ON THE FLANK FARTHER FROM THE BLUE ROUTE OF APPROACH JOIN THE FLEET FOR THE GENERAL ACTION.

OBSERVE THE HAWAIIAN ISLANDS WITH SUBMARINES FOR THE PURPOSE OF DETERMINING THE TIME OF DEPARTURE OF THE BLUE FLEET AND ITS GENERAL ROUTE.

EMPLOY LAND BASED AIRCRAFT, TENDER BASED AIRCRAFT, AUXILIARY SURFACE VESSELS, AND SOME SUBMARINES, FOR ASCERTAINING WHEN THE BLUE FLEET APPROACHES THE BONIN-GUAM-PELEW LINE.

PROTECT THE LINE OF COMMUNICATIONS PHILIPPINES-HOMELAND WITH ARMED VESSELS UNSUITABLE FOR TAKING PART IN A FLEET ENGAGEMENT.

(2) In case the BLUE Fleet is delayed and MANILA should fall in consequence prior to its arrival in the WESTERN PACIFIC, it was concluded that ORANGE would:

MAKE EVERY EFFORT TO DENY BLUE ACCESS TO THE BEST FLEET BASES ON THE WEST SIDE OF THE PHILIPPINES VIZ: LINGAYEN, MANILA BAY, SUBIG BAY, CORON BAY, MALAMPAYA SOUND, AND TAWI TAWI. THEN IF TIME PERMITS, TO DENY TRUK WHICH IS THE BEST FLEET BASE IN THE MANDATE ISLANDS. ORANGE OPERATIONS WITH RESPECT TO THE FRONTIER ON THE BONIN-GUAM-PELEW LINE WILL BE THE SAME WHETHER THE BLUE FLEET MAKES AN EARLY START OR LATER START. HER INTENTIONS AS TO FIGHTING A FLEET ACTION OR AS TO ATTRITION METHODS MUST DEPEND ON THE SITUATION AS IT WILL THEN EXIST.

Let us now consider the BLUE plan under the special situation as given:

It would seem that under the situation as presented to Admiral A in the problem statement, he has the choice of the following courses of action, which were the ones considered in the Staff Solution.

(a) To proceed immediately with the force now available in the HAWAIIAN ISLANDS to the relief of MANILA with a view to establishing the Fleet there or at some place near enough to aid the land forces in repelling the ORANGE advance.

(b) To proceed immediately with the force now available at the HAWAIIAN ISLANDS to some port to the northward of the PHILIPPINES or to one in the MANDATE ISLANDS.

(c) To await the arrival of the Army and Marine Expeditionary forces and the reinforcements in the form of battleships, destroyers, submarines, and aircraft, and then proceed to the WESTERN PACIFIC with a view to establishing the fleet in the PHILIPPINES or elsewhere in the WESTERN PACIFIC.

In estimating which of these general courses of action is to be followed, consideration must be given to:

(a) Available bases in the WESTERN PACIFIC to which the fleet might go.

(b) The minimum strength with which BLUE is justified in proceeding into the WESTERN PACIFIC.

(c) The logistic requirements for such a force.

(d) All of the above as influenced by the urgency to relieve MANILA.

When the general course of action is decided on, the consideration of the details of the operations of the various forces will depend on whether the force now ready at LAHAINA sails immediately and whether, if so, Admiral A goes in command of that part of his fleet. Should he decide to send an advance force and go with it, the details of the operations to be carried out by this force would be made by him. If he does not go, such details would be made by whichever officer he places in command. Irrespective as to who makes this part of the estimate, consideration must be given:

(a) To the route by which such a force would advance.

This requires consideration of the advantages and disadvantages of the different routes from the Great Circle to that to the southward of the MANDATE ISLANDS, as influenced by the previous consideration given to ORANGE probable intentions.

(b) The security of the force during passage from LAHAINA to destination.

This requires consideration, (1) of the screening and scouting to be done.

(2) Whether a division of force is desirable, temporarily or permanently.

(3) Whether offensive action is to be taken, and its character.

(4) Whether diversions and detours are to be undertaken, and their character.

(c) Communications within the fleet itself, with the BLUE Forces in the PHILIPPINES, and with the HOME LAND.

Many of the BLUE solvers felt the urge for the relief of MANILA as being the paramount consideration, and in consequence, decided to proceed immediately for the relief of that place, with the force then assembled at the HAWAIIAN ISLANDS.

A few solvers decided that this force was not of sufficient strength to proceed so far into the WESTERN PACIFIC. These few were those who under the consideration of Enemy Forces estimated that the most probable enemy intention would be not to proceed farther to the eastward than the GUAM-BONIN Line, and that if ORANGE found the BLUE Fleet not superior to her own, would concentrate her efforts in a fleet action. In the Staff Solution agreement was with those who had concluded that the BLUE Force assembled at the HAWAIIAN Waters at the outbreak of war, was not of sufficient strength to proceed beyond the GUAM-BONIN line until further reenforced.

In the BLUE Staff Solution, after considering the three courses of action enumerated above, the following was decided on:

omit

AS SOON AS A MARINE EXPEDITIONARY FORCE OF 5,000 MEN IS AVAILABLE, PROCEED WITH THAT PART OF THE BLUE FLEET NOW IN HAWAIIAN WATERS INTO THE WESTERN PACIFIC AND ESTABLISH A BASE AT TRUK. WHEN THE COMBINED ARMY AND MARINE CORPS EXPEDITIONARY FORCE AND THE ADDITIONAL BATTLESHIPS, DESTROYERS, SUBMARINES, AND AIRCRAFT, TOGETHER WITH THE AUXILIARIES, ARE AVAILABLE AT HAWAII, PROCEED WITH THAT FORCE TO THE WESTERN PACIFIC. THE DECISION WHETHER THE EXPEDITIONARY FORCE WILL STOP AT TRUK OR PROCEED FURTHER TO THE WESTWARD IN COMPANY WITH THE ADVANCE FORCE WILL BE DEFERRED.

A number of the BLUE solvers' decisions were similar to the decision made in the Staff Solution of last year's joint Problem I. This in effect was:

"To press in close concentration for the relief of MANILA in order to establish the Fleet there in superior strength to ORANGE for gaining command of the EASTERN ASIATIC SEAS."

It should be borne in mind that the situation from which the Staff evolved this decision last year, was quite different from the situation as given in this year's statement of the Problem. The Staff Solution this year reached the somewhat different decision:

"TO PROCEED BY DETACHMENTS TO TRUK AND ESTABLISH A BASE THERE PREPARATORY FOR A FURTHER ADVANCE FOR THE RELIEF OF MANILA IN ORDER TO ESTABLISH THE BLUE FLEET IN SUPERIOR STRENGTH TO ORANGE IN THE WESTERN PACIFIC."

The Summary of Admiral A's GENERAL PLAN as evolved in the staff solution is as follows:

ALL SUBMARINES NOW AVAILABLE AND CAPABLE OF MAKING THE TRANS-PACIFIC PASSAGE PROCEED IMMEDIATELY TO THE EASTERN ASIATIC SEAS FOR FURTHER OPERATIONS ON THE ORANGE LINES OF COMMUNICATIONS. ENROUTE, UNDER THE COMMAND OF THE ADVANCE FLEET COMMANDER, SWEEP THROUGH THE MANDATE ISLANDS AND OPERATE IN THE SERVICE OF INFORMATION AND SECURITY FOR THE ADVANCE FORCE.

ON THE ARRIVAL OF A MARINE EXPEDITIONARY FORCE AT HAWAII AN ADVANCE FLEET COMPOSED OF THE GREATER PART OF THE COMBATANT UNITS NOW ASSEMBLED WILL PROCEED TO ESTABLISH AN ADVANCE FLEET BASE AT TRUK AND GAIN CONTROL OF THE WESTERN CAROLINES.

THE COMMANDER-IN-CHIEF ASIATIC FLEET TO CONTINUE OPERATIONS IN ACCORDANCE WITH HIS BASIC PLAN AND IN ADDITION TO OBSERVE ORANGE ACTIVITIES AND CONCENTRATIONS IN THE PELEWS AND WESTERN CAROLINES.

THE GOVERNOR OF GUAM TO RESIST ANY ORANGE ATTEMPT TO CAPTURE GUAM TO THE UTMOST. TO ESTABLISH ONE OR MORE FUELLING BASES FOR AIRCRAFT IN THE ISLANDS TO THE SOUTHWARD OF GUAM.

WHEN THE REMAINING COMBATANT SHIPS AUXILIARIES AND THE ARMY AND MARINE EXPEDITIONARY FORCES PROVIDED FOR BY THE MOBILIZATION PLAN TO BE READY IN THE HAWAIIAN ISLANDS BY M PLUS

60 DAYS ARE READY, PROCEED WITH THIS FORCE TO THE WESTERN
PACIFIC. THE DECISION AS TO WHETHER THIS FORCE WILL STOP AT
TRUK OR PROCEED IMMEDIATELY FURTHER WESTWARD IN COMPANY WITH
THE ADVANCE FORCE WILL BE DEFERRED UNTIL THE SITUATION AS IT
DEVELOPS WARRANTS MAKING IT:

Time does not permit to go into lengthy details of the chart maneuver as played this year. The BLUE plan which was maneuvered was one in which the Commander-in-Chief decided to immediately proceed to the relief of MANILA with that part of his fleet which was assembled at the HAWAIIAN ISLANDS on M plus 30 days, which in this particular case coincided with the day that ORANGE started the strategic surprise landings on LUZON. You will note that no Army or Marine expeditionary force was taken along, giving us the question to answer as to whether a naval force alone can relieve MANILA.

The ORANGE plan was in accord with the usual attempts at harassment with and attrition by secondary forces with a view to reducing the BLUE Fleet to a state where ORANGE might be justified in accepting a fleet engagement.

It may be of interest to you to know that for over a month this maneuver was carried out at the end of which time five full days were consumed in its discussion. It required 86 slides to depict what occurred during this advance of the BLUE Fleet. In order to show you in a general way what occurred on this particular passage of the BLUE Fleet, only a few of the slides will be shown:

Slides to be shown:

1. Blue Cruising Formation. #2.
2. Blue Base Patrol and First Move #9.
3. Move 1 - West # 10
4. Move 2 - East # 11
5. Move 3 - East # 13
6. Move 4 - East # 15
7. Move 10- West # 28
8. Move 16- West # 40
9. Move 20- East # 47
10. Move 26- East # 59
11. Move 28- East # 63
12. Move 39- # 81
13. Move 41 # 83

While during this maneuver the class was divided in two sides, one representing ORANGE and one representing BLUE, we are, in fact, all BLUE, and what we have been doing in seeking for the truth as to the best way for BLUE to carry on the first stages of the war with ORANGE. This not only involves the application in a general way of strategical and tactical principles, but in a particular war their application to the situation as was presented by this problem.

It was previously pointed out that in the Joint Problem as solved during the past two previous years, BLUE, at the beginning of the war was allowed a state of preparedness far beyond that which we could actually expect to realize. At the same time ORANGE was given a probably advanced state of preparedness, but not so much so as BLUE.

This year both sides were allowed a state of preparedness which, in so far as surface ships are concerned, is well within the present day actuality. In so far as aircraft are concerned, we projected only about two years into the future. In fact, excepting for the assumption that our two first line plane carriers and the ZR-4 are completed, the BLUE special situation gave a mobilization plan which is believed to be entirely practicable today.

But we must not let ourselves believe that the situation as given in this problem is necessarily going to be the situation should there be a BLUE-ORANGE war in the future. There are two specially important features that might require a different plan on the part of the Commander-in-Chief of the BLUE Fleet. These differences in the possible situation are:

- (a) ORANGE may not make the attempt to capture MANILA.
- (b) The date of the declaration of war, (D day) may not coincide with M plus 30 days.

It can readily be seen that these differences in situation should they occur, would undoubtedly result in some parts of Admiral A's plan being different from that evolved from the situation as given in this year's statement of the problem.

So we come to the Question, "What should be Admiral A's first step in the development of his war plan."

Taking the situation as it actually exists in our fleet today we find a Battle Fleet on the Pacific side and a Scouting Fleet on the Atlantic side. Without going into the political and other reasons for this distribution, it is evident that it is not the best for an immediate offensive campaign by BLUE against ORANGE. It is also evident that some of the units which make up these two fleets are not suitable for the tasks designated by the organization nomenclature.

We also see the BLUE Fleet maintaining in commission some units for which Admiral A has no immediate use in the BLUE-ORANGE campaign., while other units which are urgently needed at the very beginning, are laid up out of commission. Here again the political and international reasons prevail over the strategical.

The net result of this is that the first thing Admiral A, as Commander-in-Chief of the entire BLUE Fleet must do is to readjust his Fleet organization.

Lessons: (1) Insofar as the political and international situations will permit, place out of commission all ships which will not be immediately required in an offensive campaign in the Pacific, utilizing the personnel gained thereby for placing in commission and keeping in service ships now laid up, but which the mobilization plan show the first to be required in case of War.

(2) Change the names of our Battle Fleet and Scouting Fleet to some other, such as First and Second Fleets. The units then could be interchangeable to meet different situations, and the changes could be made without giving suspicion as to motives. At the same time the Commander-in-Chief will be able to retain these basic names in any rearrangements he wishes to make to meet any special situation.

In the situation as presented in this year's problem, there are several important basic features which influence Admiral A in making his plan. These are:

(1) ORANGE is actually making an attempt to capture MANILA.

(2) The BLUE Commander-in-Chief of the Asiatic Fleet has been given the Immediate Mission by the Navy Department.

"In cooperation with the Army to hold MANILA BAY."

(3) The BLUE Commander-in-Chief of the entire BLUE Fleet is not given an Immediate Mission by the Navy Department, but is given the general concept of the war, and what is termed an Initial Mission.

It is evident therefore that Admiral A must derive for himself what the Navy Department terms an Immediate Mission.

It is also evident that Admiral A cannot set aside the unstated but evident reason as to why MANILA BAY is to be held. It is, of course, in order that the Main BLUE Fleet may have a suitable base in the Eastern Asiatic Seas. Therefore, under the present Departmental Basic Plan, Admiral A will always feel the urge for proceeding to the relief of MANILA.

Taking the situation as given in this year's problem where (1) on the day war is declared, BLUE has assembled in HAWAIIAN waters a fleet which in total fighting strength is practically equal to the entire ORANGE fleet; (2) where,

in accordance with the Mobilization Plan, the Army and Marine Expeditionary Forces will not be ready for another 30 days; and (3) where there is nothing definite as to how long MANILA BAY may hold out.

What question immediately presents itself?

It is: If the BLUE Fleet without an expeditionary force arrives in MANILA BAY before it has fallen, would or could this save MANILA BAY to BLUE?"

I have heard a number of officers answer, "Yes" and a number answer "No" to this question, with equal emphasis.

Lesson: In view of the probability that a BLUE Fleet superior in strength to ORANGE may be ready for proceeding to the relief of MANILA before a combined Army and Marine expeditionary force is available, a thorough study should be made as to the probable effects: (1) on the situation at MANILA BAY by the arrival of such a fleet. (2) Of future operations of the Fleet and the mobilizing expeditionary forces. These are joint Army-Navy problems. Let us assume that the answer to the above question is "Yes". i.e. The BLUE Fleet alone can save MANILA.

As, in accordance with our present mobilization plan, by the time our Army and Marine Expeditionary Force are ready at LAHAINA the mobilized BLUE Fleet is greatly superior in fighting strength to that of the entire ORANGE Fleet, the next question which confronts Admiral A is:

"What is the least fleet strength he is justified in taking to the PHILIPPINES?"

Without going into the detailed reasoning required to answer this question, the conclusion drawn by the Director of the Maneuver from a study of the problems as solved and maneuvered during the past three years are:

- (1) The BLUE Fleet is not justified proceeding beyond the BONIN-GUAM-PELEW line unless in sufficient strength to

to warrant seeking Fleet action with the ORANGE Fleet.

(2) To engage in such a fleet action with ORANGE, BLUE must reckon with the fact that ORANGE can select the site for such an action, and therefore it will probably be where the ORANGE Fleet would receive aid from land-based aircraft.

Insofar as Admiral A is concerned it is evident that whatever Plan he expects to use will depend on when the forces necessary for carrying it out will be available. That is, if he takes Plan A, to relieve MANILA, he must know the minimum force he is justified in taking, and this should be worked out in time of peace. It may be that by the time this force is assembled at LAHAINA it will be too late to go to the relief of MANILA.

Under this assumption he should have tentative plans for:

- (a) Establishing the Fleet at some other place in the PHILIPPINES.
- (b) Establishing the Fleet in the MANDATE ISLANDS.
- (c) Establishing the Fleet nearer the ORANGE home land.

The BLUE Commander-in-Chief having these tentative basic plans, all worked out in times of peace, would then select and modify the one that the special situation at the time for beginning operations would seem best to warrant. In other words, he has plans worked out for a number of probable assumptions, and when war comes, he makes an estimate based on the situation as it then presents itself to him, and brings his tentative plan under that estimate up to date.

In these plans there must be a clear conception of the relationship between the operations to be conducted by the BLUE ASIATIC Fleet Commander and the Commander-in-Chief of the BLUE Main Fleet. Will the BLUE ASIATIC Detachment, or what is left of it after the initial attacks on ORANGE convoys, be left to its own initiative, or will the BLUE Fleet Commander control its actions to a more or less extent? It is now clearly

understood that the Army and Navy in the PHILIPPINES are initially to work together for the holding of MANILA. It looks as if there would be at least three alternatives for major courses of action for the BLUE Naval ASIATIC Detachment to follow after the ORANGE armies have landed on LUZON.

These are:

1. To hold themselves in readiness for attacking ORANGE should he attempt to make landings at other places than those first effected.
2. To operate on the ORANGE lines of communication between the home land and LUZON, and then to the southward.
3. To maintain radio communication between and otherwise operate in connection with the BLUE Main Fleet in its advance across the PACIFIC.
4. Certain combinations of these courses of action.

Which of these alternatives are to be followed should of necessity depend upon the situation as it unfolds itself. But, in order that when the situation arises there may be no misunderstanding between the BLUE Army and Naval Commanders in the PHILIPPINES and between the Commander-in-Chief of the BLUE Main Fleet, their relationship should be clearly set forth in times of peace.

Lesson: It would seem that a plan for our ASIATIC Naval detachment which is acceptable to the Army General Commanding in the PHILIPPINES is essential; that this plan should go beyond the initial decision, and should comprise alternative plans to be used after ORANGE forces have landed; and, as the BLUE ASIATIC Fleet becomes a detachment of the BLUE Main Fleet immediately on the declaration of war, such plans must have the approval of the Commander-in-Chief of the BLUE Main Fleet.

Whichever plan Admiral A adopts owing to the situation, it would seem that not only should he take along a force which his estimate shows to be the minimum, but that he should take along all additional forces that are ready and can maintain the speed.

The reasons for this are:

1. There is no way of determining exactly how much damage ORANGE can inflict on BLUE in such a campaign.

2. Assuming ORANGE puts forth her maximum effort which results in considerable losses to BLUE, the limitations on ORANGE of fighting strength, mobility, logistics, etc., will mean that losses inflicted on BLUE'S larger force will probably not be greater, or even as great as, those inflicted on the smaller one. Therefore, the larger BLUE Force should arrive at destination in greater strength than the smaller one.

3. That after the BLUE Force assumes a size of over 250 ships, it's mobility will not be materially reduced by additional ships up to the neighborhood of 400. On the other hand, BLUE by having these extra ships can better afford to lose a number of them from ORANGE attacks, and to let those that suffer breakdown or other casualty fall to the rear or return to PEARL HARBOR without the misgivings that the Commander-in-Chief would feel if he had only the lesser number of vessels.

Should the Commander-in-Chief in a force of this sort steam-roller through? This implies a purely defensive attitude excepting when enemy forces come to him. Purely passive defensive attitudes have been found by experience, both in actual war and in the war games played here at the College, to be generally incorrect in principle. It has been demonstrated that a passive defensive attitude gives the enemy an initial advantage that is tremendous, in that as soon as he finds it out, he knows that all of his own forces are safe from harm excepting those which he wishes to use offensively. This gives him an initiative that helps materially in making his attack plans. It gives him the opportunity to attack during daylight with submarines and aircraft, and at night with destroyers and light cruisers, which forms of attack cause the stronger force

Much from here was cut out - Jm

excepting those which he wishes to use offensively. This gives him an initiative that helps materially in making his attack plans. It gives him the opportunity to attack during daylight with submarines and aircraft, and at night with destroyers and light cruisers, which forms of attack cause the stronger force to lose much of the advantage that should belong to it owing to superior fighting strength. It would therefore appear to behoove the BLUE Commander-in-Chief to take every measure within his means to prevent the enemy from gaining this advantage. Can the BLUE Commander-in-Chief do this? It might be done either by offensive screening with a view to breaking up the enemy information and attack forces; by distant scouting with a view to locating the enemy attack forces and placing them at a disadvantage by changes of course at the right time; or by a combination of both distant scouting and offensive screening.

Lesson: The BLUE Fleet in making a passage through uncontrolled or through partially controlled areas should employ to the utmost such strength as he has available for offensive action against the enemy information service and against such secondary enemy forces that might be aiming to make attacks under conditions specially favorable to them. Farragut's dictum: "The best protection against an enemy's fire is a well directed fire from our own guns", covers tactical situations. It would seem that this could well be expended to meet a wider field by the statement: "The best protection against an enemy's offensive against us, is a well directed offensive by our own forces."

Secondly we have an inadequacy of light cruisers. It is evident from the solutions and from the maneuvers that the lack of this type of surface craft is a great handicap to BLUE. Sufficient vessels of this type would tend to lessen our deficiency in battle cruisers, especially as none of the ORANGE battle cruisers are of sufficiently high speed to overtake modern light cruisers. With sufficient light cruisers it would

seem the BLUE Commander-in-Chief would be justified in taking risks with them for the purpose of gaining information about the enemy, and with a view to making successful raids on outlying enemy secondary bases. The loss of a few ships in this way would be less harmful in the long run than losses suffered by reason of surprise light surface, air and submarine attacks on the capital ships, cruisers and convoy. The question of whether or not it is feasible to use the cruisers in this way must depend on the situation as it presents itself at the time, and must be based on information obtained.

Another point which shows up our light cruiser weakness has been demonstrated in the game this year as well as in those of previous years where night attacks have been made by ORANGE light cruisers and destroyers on the BLUE Fleet. We find that some of these light forces have been able to get close enough to the center of the BLUE Formation to inflict torpedo damage on the battleships grouped about the convoy and on the convoy itself. In a night melee it is doubtful if this could be entirely prevented; but there is no doubt that the danger to the battleships in a night attack could be greatly lessened if there were sufficient light cruisers to form a reasonably strong screen outside of them.

Lesson: Every endeavor should be made to augment our light cruiser strength.

What is needed to get necessary information of the ORANGE dispositions? It would seem that submarines and aircraft are the best instruments, backed up by light cruisers that are capable of handling air planes in at least a moderate sea. One of the lessons that BLUE derives from this problem and that of past years is the great value of submarines. It is important that

this be understood in future limitation of armament discussions. BLUE needs more submarines and bigger and faster one than are now possessed. They are needed for legitimate warfare against combatant ships. We cannot have too many of them for purposes of attack, screening, scouting and reconnaissance.

If BLUE has enough submarines he will be able to send out a distant scouting force that will greatly aid the BLUE Commander-in-Chief in gaining information that cannot otherwise be obtained. In addition it would seem that the needed additional strength for the ASIATIC FLEET could best be supplied in the form of submarines, which, in view of ORANGE superiority in strength in the WESTERN PACIFIC, are the vessels that would be of greatest use to BLUE in those waters during the early stages of a war.

In the maneuver of two years ago, the entire BLUE Submarine force was retained in a protective screen on a thirty mile radius from the pivot. In last year's maneuver the greater part of the submarines were disposed several hundred miles in advance of the BLUE Fleet, and later partly drawn in so as to form a partially protective screen at distances from one to two hundred miles from the pivot.

This year a large part of the BLUE submarines were retained as pickets for the BLUE Fleet on a circle of 30 miles radius from the guide. Some were sent ahead to sweep through the MANDATE ISLANDS, and some formed a line 150 miles ahead of the Fleet center.

The great value that submarines would be on the ORANGE lines of communications at the outbreak of war, indicates that both our mobilization plans and, if necessary, our basic operating plans, should be modified so that as many submarines as possible be maintained as far to the westward as practicable, and that in case of war an immediate move be made by them into the WESTERN PACIFIC without waiting for the rest of the Fleet.

- Lessons: (1) Retain submarines as an essential part of our fleet.
- (2) Increase the number of submarines.
- (3) Give the submarines of the future:
- (a) Reliability.
 - (b) Endurance.
 - (c) Speed.
- (4) Increase our submarine strength in the Asiatic Station.
- (5) In our mobilization and basic operating plans, arrange for getting our submarines to the WESTERN PACIFIC at the earliest possible time.

In examining into the lessons that might be learned from the employment of aircraft in our maneuvers, a few features stand out especially.

The one that particularly appeals is that the more we operate aircraft, the more we see that the general principles of carrying on warfare apply to them as well as to other types of vessels.

For examples: (1) We have found that attacks by light surface craft and submarines on larger vessels are made difficult, and sometimes impossible, by interposing screens of small craft between our heavy ships and the attacking forces. It is developing that attacks by aircraft on our surface craft are going to be made difficult by interposing aircraft screens.

(2) We have had to develop the light cruiser with long radius high speed and good gun power, for scouting purposes. In aircraft we are developing a scouting plane with other functions combined, with a view to reducing the numbers of types. The result is that the present type of so-called scouting planes are not of the highest speed as is the case with surface vessels. Consequently we have frequently seen scouting planes make contact with the force being searched for, only to be shot down by the swifter screening planes.

(3) The maneuvers held in which airplane carriers have been employed, have developed that when a carrier's planes are in the air and operating at a distance from the carrier, that vessel is tied down to a more or less definite area or line which may lead to its discovery and possible destruction. If attacked under these conditions either by aircraft or superior surface craft, the carrier must run to avoid destruction and thereby is in danger of losing all of its planes that are away.

This gives us the lesson that in our operations of aircraft carriers, consideration must be given to this peculiar weakness which does not exist in other types of surface craft.

It is evident if aircraft are to be developed in the numbers and with the capabilities we are allowing to them, BLUE may suffer great losses from ORANGE attacks from that source, unless capable of combating them successfully. We have our naval air forces up to the strength allowed by the limitation of armament treaty. Our naval air forces will then be stronger than those of ORANGE. Such advantage that ORANGE will obtain from her land based aircraft can then be nullified by offensive action against them as may become feasible, or by taking routes that place the Fleet in the least jeopardy from them.

It is essential that we should make every endeavor now greatly to augment our land based air forces in the PHILIPPINES.

It looks from this problem that if BLUE is to advance across the PACIFIC and establish the fleet in superior strength to ORANGE, the speed of the formation will necessarily be slow - in fact considerably slower than allowed in the maneuvers we have played. This is a situation that can only be improved by having train vessels and submarines of greater sustained speed than is now the case. The speed of the Fleet may be the vital point as to whether or not BLUE arrives in time to relieve

MANILA. Therefore every effort should be made to improve our forces in this respect.

It is evident from the maneuvers conducted during the past three years if ORANGE makes determined attacks, considerable losses must be expected. BLUE battleships and other combatant vessels will have been hit by torpedoes and bombs. Before these ships can operate further they must be placed in drydock for repairs. Where are the docks? They do not exist. The fleet will be in the WESTERN PACIFIC with a number of valuable and potentially powerful ships, which, instead of being in position to act offensively, must be defended and protected, thereby requiring for this purpose the illegitimate employment of other types. What can be done to remedy this situation?

Even should MANILA remain in BLUE's hands, there are no permanent docks there, and the DEWEY has not sufficient capacity for our battleships. The only answer is large floating docks with sufficient capacity to take the battleships. Of these we have none. This is a decided material deficiency which should be immediately supplied.

To summarize our material deficiencies which affect our Strategic Plans, we first have the two great ones which it is now beyond our power to remedy. These are:

1. No impregnable base in the Western Pacific.
2. No battle cruisers.

The chief material deficiencies which are within our power to remedy are:

1. Lack of light cruisers.
2. Lack of naval aircraft strength.
3. Lack of high speed long radius submarines.
4. Lack of speed in auxiliaries.
5. Lack of base facilities in the HAWAIIAN ISLANDS.
6. Lack of submarines and aircraft in the PHILIPPINES.
7. Lack of large floating dry docks.

The chief lessons learned from the solving and maneuvering of this problem during the past three years are:

1. That BLUE when mobilized has sufficient superiority in fighting strength over ORANGE to take the FLEET to the PHILIPPINES without delaying in the MANDATE ISLANDS.

2. That TIME is an important element in the relief of MANILA. Therefore our Fleet organization and our mobilization plans should now be adjusted so as to assure as early a westward move by our fleet as possible.

3. That in moving the large BLUE Fleet across the PACIFIC every endeavor must be made to prevent situations arising which tend to nullify the advantages which should go with superior fighting strength. This is to be done by organizing an efficient service of information and security, that will permit of offensive action against the ORANGE information service and concentrations.

4. That the success of the BLUE campaign would be greatly enhanced, and there will be an ultimate saving to BLUE in lives and money by now augmenting our submarine and aircraft strength in the PHILIPPINES and GUAM; by increasing the base facilities in the HAWAIIAN ISLANDS; by augmenting our light cruiser, submarine, and fleet air forces.

5. The necessity for still closer cooperation between the Army and the Navy in the preparation and carrying out of plans for amphibious operations has been accentuated.

6. The value of the correct application of the elements and principles governing the conduct of war, such as the conservation of forces, superiority, surprise, initiative, the employment of the offensive, have been illustrated.

7. The necessity for making logical estimates of the situation from which our plans are made, has been demonstrated.