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OUTLINE OF NAVAL ARMAMENT AND PREPARATIONS FOR WAR

Part V

PREPARED BY
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FOREWORD

This is the fifth of a series of six monographs in regard to Japan's naval armament in preparation for and during the Pacific War.

Additional monographs covering Japan's naval armament plans are:

	Mono No
Outline of Naval Armament and Preparations for War, Part I	145
Outline of Naval Armament and Preparations for War, Part II	149
Outline of Naval Armament and Preparations for War, Part III	160
Outline of Naval Armament and Preparations for War, Part IV	169
Outline of Naval Armament and Preparations for War, Part VI	174

18 September 1952

Preface

Through Instructions No. 126 to the Japanese Government, 12 October 1945, subject: Institution for War Records Investigation, stepts were initiated to exploit military historical records and official reports of the Japanese War Ministry and Japanese General Staff. Upon dissolution of the War Ministry and the Japanese General Staff, and the transfer of their former functions to the Demobilization Bureau, research and compilation continued and developed into a series of historical monographs.

The paucity of original orders, plans and unit journals, which are normally essential in the preparations of this type of record, most of which were lost or destroyed during field operations or bombing raids rendered the task of compilation most difficult; particularly distressing has been the complete lack of official strength reports, normal in AG or G3 records. However, while many of the important orders, plans and estimates have been reconstructed from memory and therefore are not textually identical with the originals, they are believed to be generally accurate and reliable.

Under the supervision of the Demobilization Bureau, the basic material contained in this monograph was compiled and written in Japanese by former officers, on duty in command and staff units within major units during the period of operations. Translation was effected through the facilities of Allied Translators and Interpreters Service, G2, General Headquarters, Far East Command.

This Japanese Operational Monograph was rewritten in English by the Japanese Research Division, Military History Section, Headquarters, Far East Command and is based on the translation of the Japanese original. Editorial corrections were limited to those necessary for coherence and accuracy.

TABLE OF CONTENTS

	Page
Second Stage War Production Plan (Second Revision of Fifth Plan) March 1943 - April 1945	1
Second Period War Production Acceleration Plan	2
Third Phase War Preparations Plan	3
Recommendations by Navy General Staff	4
The Naval War Preparations Research Committee Conference	5
Naval Aeronautical Department	5
Stores Bureau	11
Navy Technical Department	13
Navy Civil Engineering Department	14
Organization, Equipment and Capacity of Construction Units	14
Maintenance Plans for Construction Units	16
Personnel Bureau	17
Education Bureau	20
Military Preparation Bureau	22
Labor	25
Tentative Compromise Plan Proposed by the Navy Affairs Bureau ("HI" Study)	29
Negotiations with the Army in Regard to Allocation of Materials and Production Facilities for Aircraft Production	32
Interim Decisions	33

Page

Problems Related to Administrative Inspection and Munitions Ministry..... 35

Execution Plan and Outline of its Progress..... 37

Shipbuilding Program..... 37

Aircraft Production..... 45

CHARTS

No.

1. Naval Vessels Added to 1943 - 1944 Shipbuilding Plan.. 39

2. Shipbuilding Program 1945..... 41

3. Construction of Naval Vessels 1943 - 1944..... 43

4. Actual Aircraft Production (Monthly and Quarterly) for 1943 and 1944, Also Figures for 1941, 1942 and 1945..... 49

APPENDICES

I. Navy Ministry's Inquiry on the Formulation of the Second Period Execution Plan for the Acceleration of War Preparations, 15 March 1943..... 53

II. Navy General Staff Top Secret Document No 142, 22 April 1943..... 57

III. Navy Ministry's Reply Concerning the Wartime Construction and Replacement of Naval Vessels and the Strengthening of the Ground Defenses in the 1943 Fiscal Year..... 65

IV. Material for the Ninth Meeting of the Naval War Preparations Research Committee of Imperial General Headquarters..... 73

Second Stage War Production Plan (Second Revision of Fifth Plan) March 1943-April 1945

As the Revised Fifth Plan and the First Period War Production Acceleration Program were put into effect, each department was called upon to exert the utmost effort to complete its part in the program.

The Guadalcanal Campaign, begun on 7 August 1942, completely upset all calculations for these plans, as it became necessary for the Japanese Navy to commit cruisers, destroyers and submarines to this campaign which it had been previously planned to hold in readiness for the all-out decisive battle. Although the Japanese Navy inflicted considerable losses on the enemy during this period, the damage to Japanese ships and aircraft was far greater than anticipated.

In order to cope with this situation, the Naval General Staff requested the additional construction of 11 submarines and 42 destroyers. (See Monograph No 169, p. 14) The Navy Ministry and fleet authorities felt, however, that there was not sufficient time to undertake this work and that it was far preferable to construct high speed Navy transports of a new type, designed so that they could be mass produced. These ships could then be used exclusively for transporting troops and supplies. Another factor affecting the policy of the Navy Ministry was the sudden increase in shipping losses caused by enemy submarines after October 1942. (Monthly shipping losses up to September 1942 averaged 50,000 tons, but increased to 200,000 tons

after October 1942.) The Japanese Navy admitted that they had underestimated the efficiency of the United States submarines and recognized the need for speedily constructing Navy transports, antisubmarine vessels and small craft for local operations. This made a complete change necessary in war preparations. From the beginning of 1943, therefore, both the Navy Ministry and the Navy General Staff investigated the situation. As a result, the Second Period War Production Acceleration Plan was drawn up.

Second Period War Production Acceleration Plan

In order to minimize the confusion resulting from the constant change in war production plans and to speed up the work without waiting for agreement to be reached between the Navy Ministry and the Navy General Staff with respect to the change in naval strength in the Revised Plan, on 15 March 1943 the Naval Affairs Bureau requested information from the departments concerned in regard to formulating the Second Period Execution Program for the Acceleration of War Production. (See Appendix I.) After consultation with the section chiefs concerned, the details of this proposal were approved by the Emergency War Production Acceleration Committee on the same day.

In order to effect the drastic revision of policy necessary to meet the change in the operational situation, the Navy General Staff, after investigation of the situation, requested the Navy Ministry

for details of the Wartime Ship Construction Replenishment Program and the Land Defense Reinforcement Program described in the appended plan to Naval General Staff Secret Document No 142, dated 22 April 1943. (See Appendix II.)

The Navy Ministry stated that it was absolutely impossible to meet the demands of the Navy General Staff. It was felt that the Navy General Staff made new and unreasonable demands each time the war situation changed. It was not until June 1943, after investigating the suspension of old armament and war preparation plans and in coordination with the Revised Fifth Replenishment Plan, that the Navy Ministry was able to decide on the Second Phase War Preparations Plan. A formal reply outlining the execution of the plan was submitted to the Navy General Staff by the Navy Ministry on 3 June 1943 . (See Appendix III.)

Since the Second Phase War Preparations Plan included only ships, and excluded air defense strength, the progress of the air defense program will be mentioned in conjunction with ship strength in the Third Phase War Preparations Plan.

Third Phase War Preparation Plan

Immediately after the commencement of the Second Phase War Preparations Plan, the war entered the Third Phase Operations. This may be considered as beginning with the withdrawal from Guadalcanal about 7 February 1943, although the Imperial General Headquarters

Navy Directive on this phase was not issued until 25 March 1943, and the Combined Fleet did not announce it officially until 15 August 1943. About this time, the Japanese Armed Forces lost the initiative in operations and were compelled to resort to defensive or passive warfare.

In April, the Commander in Chief of the Combined Fleet was killed in action. In May, the Japanese forces on Attu were wiped out. In the Solomons and New Guinea, the Japanese forces gradually retreated to the northwest under heavy pressure from the Allied forces.

Both Army and Navy headquarters as well as the Japanese Government were urged to take drastic measures to cope with the situation. Students were mobilized and all material previously discarded as outmoded was collected to assist in the production of necessary war machinery.

The third revision of the Fifth Replenishment Plan (Revised Fifth Plan) was the same as the Third Phase War Preparations Plan.

Recommendations by Navy General Staff

On 11 August 1943, the Navy General Staff submitted a proposal for the Third Phase War Preparations Plan. (See Appendix IV.) They stated the number of planes, ships and personnel required, but gave no specific information as to how these were to be obtained, or the date on which work would be completed. The proposal was written in

the form of pamphlets which were distributed at the preliminary meeting with the Ministry. No formal documents were submitted, as had been the case in the past. The Navy General Staff requested that, upon completion of the study of these pamphlets by the Navy Ministry, a meeting be held of the Naval War Preparations Research Committee, at which the responsibilites of each department of the Ministry would be explained.

The Naval War Preparations Research Committee Conference

The Navy Ministry was somewhat reluctant to accept this proposal from the Navy General Staff, but, at the same time, was prepared to discuss bottlenecks which impaired the efficiency of the departments in preparing war materials. It was decided, therefore, that, as soon as the necessary study had been made of the proposal, it would be referred to the War Preparations Research Committee in order to obtain a compromise.

A conference was held with this Committee about 20 September 1943. A summary of the report prepared by the War Preparations Execution Department was as follows:

Naval Aeronautical Department

The present plan to produce 15,000 planes during the fiscal year 1944 was considered the absolute limit of the capacity of the aircraft industry. The Navy General Staff plan, however, aimed at

a drastic twofold increase in production. Under existing conditions, the realization of this plan was quite impossible. However, it was recognized that the replenishment of naval air strength might prove an essential factor in finally deciding the destiny of Japan, and the cooperation of the entire Navy was required to overcome all difficulties. Further, it was necessary to obtain the cooperation of the Army so that various departments might work together to obtain the objective. It was, therefore, decided that:

During the fiscal year 1943, the number of planes to be manufactured would be increased to 9,800, upon the early completion of the previously established plan for the production of 8,200 planes. This was 86 percent of the planes requested by the Navy General Staff for the fiscal year 1943, but 1600 planes short of their stated requirements.

During the fiscal year 1944, 4,300 planes of the 30,200 planes requested by the Navy General Staff would be produced by diverting a part of the production capacity of the Army, while the remaining planes would be manufactured by relying on the full cooperation of the Navy Technical Department.

Flight Personnel: It was estimated that the number of flight personnel required to be maintained, in order to meet the request of the Navy General Staff, would be 17,000 at the end of the fiscal year 1943 and 42,000 at the end of 1944. The number to be trained in accordance with the present program during the fiscal year 1943

was 8,460 and during the fiscal year 1944 was 18,560, while an increase of that number by 917 in 1943 and 10,118 in 1944 would be possible under the new program. Should both these programs be fulfilled, and the personnel be trained, it would mean that 88.6 percent of the Navy General Staff's request would be met in 1943 and 84.1 percent in 1944. In order to accomplish this during the 1943 fiscal year it would be necessary to advance the graduation date to the end of March 1944 instead of the end of May. During the 1944 fiscal year this would mean an increase of 2,688 through graduation before the scheduled date and an increase of 7,430 through the reduction of training courses.

Flight engineers: If the present program were followed there would be a surplus in the number of flight engineers at the beginning of the fiscal year 1944, but at the end of fiscal year 1944 a shortage of 1,123 flight engineers would arise. This shortage was to be replenished by class B Primary Flight Enlisted Trainees (special class).

Aircraft maintenance personnel: Through the execution of the present program, a 100 percent replenishment of aircraft maintenance personnel could be expected in May 1945. However, the ratio between the graduates of ordinary course aircraft maintenance enlisted trainees and advanced course aircraft maintenance enlisted trainees would be 11 to 3, and aircraft maintenance capacity would be decreased. Therefore, beside the previously established plan, three

training air groups were to be newly established. Their ratio of 5 to 4 would be maintained at the beginning of fiscal year 1945 by appropriating the surplus training facilities of ordinary course aircraft maintenance enlisted trainees for training advanced course aircraft maintenance enlisted trainees as well as the capacities of the newly established training groups.

The number of specialists required to be maintained to meet the Navy General Staff's request by the end of the fiscal year 1943 was 34,017 and by the end of 1944 was 80,650. In accordance with the present program, the number of personnel to be increased during the fiscal year 1943 was 8,435 and during 1944 was 46,890. There was no further increase planned in accordance with the new program. Under the circumstances, the number of specialists was to be 57 percent or 14,322 men short of the Navy General Staff's requests. Non-specialists to meet the Navy General Staff's request were 52,178 at the end of the fiscal year 1943 and 141,410 at the end of the fiscal year 1944.

Equipment maintenance personnel: The six months' training course for ordinary equipment maintenance personnel would be reduced to five months. The period of the training course for photographers was to be four months. Moreover, efforts would be made to replenish the personnel by utilizing to full capacity the training air groups provided for in the previously established and present programs in order to effect 100 percent replenishment of equipment maintenance personnel in June 1945.

The number of specialists required to be maintained to meet the Navy General Staff's request at the end of the 1943 fiscal year was 13,929 and at the end of 1944 fiscal year it was 31,336. The number of personnel to be increased was 3,459 for the fiscal year 1943 and 12,550 during the fiscal year 1944. There were to be no personnel increased during 1943, but an increase of 7,125 during 1944 for the new program. This would mean that 48.3 percent of the personnel required by the Navy General Staff's request would be trained during the fiscal year 1943 and 78.7 percent during the fiscal year 1944. It was impossible to shorten the course further to increase the number of personnel. This left no alternative but to replenish the shortage of specialists by non-specialists. At the same time, the number of non-specialists required by the Navy General Staff's request was 5,154 during the fiscal year 1943, and 14,567 during the fiscal year 1944.

The principal matters necessary for the execution of this program requiring the careful consideration and cooperation of all Departments of the Navy and the Army were as follows:

Material and manpower: In order to cope with the personnel, technique, and construction capacity requirements, the extensive transfer and cooperation of the capacity of the Navy Technical Department was necessary.

This program was formulated under the condition that some priority would be given to the Navy air war preparations over the

Army air war preparations. Out of the 30,200 planes requested by the Navy General Staff, 4,300 were to be manufactured in the fiscal year 1944 by facilities to be transferred from the Army. For this purpose it was necessary to discuss and arrange with the Army for its limit of plane production at the present level. (13,000 planes were estimated for the fiscal year 1944.) Otherwise, there was little prospect of producing even 26,000 planes.

The most serious handicap in aircraft production was the shortage of materials. Besides the supply of materials in 1943 being insufficient, the production plan was pushed ahead by two months. Furthermore, since this program in the fiscal year 1944 aimed at increasing production twofold from that of the plan in the preceding year, it was absolutely necessary to obtain the materials at an average of six months in advance. At the same time, it was necessary to obtain part of the supply of materials for 1944 without delay. For this reason, a decision had to be made immediately as to whether or not this program would be followed. If so, the following items had to be decided upon immediately:

1. Institution of wartime special regulations for the aircraft industry.

2. Priority for the supply of metal machine tools and industrial manufacturing machines.

3. The necessary number of technicians and workers.

4. Priority use of the electric power, motive power, transport and billeting facilities.

Training of personnel: The bottleneck in training flight personnel emanated from inadequate training equipment. For this reason, should the production of aircraft be behind schedule or the aircraft be diverted in excess of the prearranged program to the use of units committed in operations, the number of trained flight personnel would obviously be reduced.

The greatest bottleneck in training maintenance personnel was the shortage of personnel detailed to train in maintenance. The following matters, therefore, had to be settled immediately:

Revision of the Army-Navy Agreement concerning the personnel detailed for training to ensure the necessary number of personnel.

The establishment of the maintenance branch primary enlisted trainee system required to be studied and efforts exerted for its realization.

Stores Bureau

The quantitity of aviation fuel produced for the fiscal year 1945 was to be fixed at 1,800,000 kilolitres. (The goal presently to be achieved according to the Fifth Program was 1,200,000 kilolitres.) Fvery possible measure was to be taken to obtain this objective. For this purpose, the quantity of heavy oil, ordinary gasoline and kerosene light oil to be obtained would inevitably be reduced.

Should the fulfillment of the various necessary conditions be impossible, a secondary plan for production of 1,500,000 kilolitres

of aviation gasoline in the fiscal year 1945 was to be prepared as a supplement.

The production of 15,000,000 kilolitres of crude oil in both Japan Proper and the Southern Area was to be aimed at in 1945.

The quantity of oil to be shipped from the Southern Area was fixed as follows:

Crude oil: Approx. 6,300,000 kilolitres

Refined oil: Approx. 3,550,000 kilolitres

Total: Approx. 9,850,000 kilolitres

The distilling capacity of crude oil and manufacturing capacity of issooctane and other oil was to be increased to handle the above output by expanding the installations.

The allotment of steel was as follows:

1943: Approx. 280,000 tons

1944: Approx. 300,000 tons

Approximately half the necessary man hours to be assigned to the Navy Technical Department for fuel production was:

Fiscal year 1943: Approx. 14,000,000 man hours

Fiscal year 1944: Approx. 15,000,000 man hours

Personnel was to be increased as follows:

Fiscal year 1943: 34,780 men

Fiscal year 1944: 38,690 men

Since aviation gasoline required for the maintenance and operation of the air strength of 14,546 planes from the beginning of the fiscal year 1945, as proposed by the Navy General Staff, was estimated

at 2,300,000 kilolitres a year, the amount requested by the Navy General Staff was 1,800,000 kilolitres or about 78 percent.

Navy Technical Department

The plan of the Navy Technical Department was based on the diagram of 25 July 1943, showing the second phase war preparations with the continuing armament and war preparations plan. Although reservations were made relative to suspension and deferment of construction of aircraft carriers, no decision was made on the final disposition of these matters. On the other hand, despite the request for large-scale construction of transports, landing craft, motor torpedo and miscellaneous boats, a drastic cut of necessary materials was anticipated.

In addition, the new plan of the Navy Aeronautical Department presupposed the extensive transfer of the capacity of the Navy Technical Department, but its extent and the details were unknown.

The Stores Bureau's plan also presupposed 14,000,000 to 15,000,000 man hours for a year to be allotted to the Navy Technical Department, but concrete details were unknown.

In regard to rapid reinforcement of the inner and the outer combat forces, establishment of the goal for manufacturing weapons to replenish equipment was still impossible.

As mentioned above, there were many basic factors requiring further study, so that it was impossible to report on a plan immediately. The allocation of materials had to be announced as quickly

as possible and the requests of each department or bureau to the Navy Technical Department had to be adjusted and decided.

Navy Civil Engineering Department

There were many impediments to the materialization of the Navy General Staff's War Preparations Plan in this department. Construction materials were in extremely short supply. This together with the shortage of personnel, developed a severe bottleneck in the realization of the plan. Immediate drastic revisions in the allotment of material were necessary and every effort was made to secure the required quantity.

The ratio of allocation to requirement of construction materials during the fiscal year 1943 did not exceed 36 percent for steel, 52 percent for cement or 41 percent for lumber. In the fiscal year 1944, taking into account the land defense and air armament plans currently being proposed by the Navy General Staff, and the land and sea defense programs already underway, the quantity of critical construction materials required for that year was enormous. The ratio of actual allocation of materials to requirements in 1944 could not exceed 25 percent for steel, 46 percent for cement or 60 percent for timber if the actual supply remained the same as the previous year's level.

Organization, Equipment and Capacity of Construction Units

In view of the fact that there was an acute shortage of personnel for appointment as commanders of construction units, and very

little time for training probationary technical officers (the training of the second group of junior technical officers was slated for completion about August 1944) and that there was also difficulty in obtaining workers, it was expected that the maximum number of construction units which could be organized during the 1944 fiscal year would be 30. This was assuming that the procurement of drafted workers would continue to be a difficult as it had proven during 1943. Even if steps were taken to increase the labor draft and construction of part of the Homeland installations was postponed, no more than 35 units could be organized yearly. This would fill approximately one-third of the Navy General Staff's request for the maintenance of 50 units in the fiscal year 1943, and 100 units in both 1944 and 1945.

It was planned to organize one construction unit in September 1943, three units in October, four units in November and four units each month thereafter. It was found, however, that the organization of four units during and after January 1944 was not feasible and that it would be necessary to take drastic measures to acquire personnel.

Due to the shortage of unit commanders, it was planned to send three of the 12 units to be organized during September-December as reinforcements to construction units already deployed, while three others were to be included in the Special Civil Engineering Depot.

The output of machinery gradually got under way. With the exception of some machine tools, production reached a monthly level sufficient to equip four unit of "D" class organization, that is,

half their full quota of equipment and capable of constructing an airfield in about 20 days. It was expected that the machinery output would be further increased during and after April 1944. Despite this increase, however, it would still be difficult to meet the equipment requirements of the construction units. As top priority was being given to the front lines in the allocation of supplies, it appeared that either allocation to the front lines would have to be cut, or the number of units reduced, if the construction units were to be fully equipped.

Maintenance Plans for Construction Units

Materials for construction units had previously been supplied by diverting materials allocated for general construction. This system could no longer be continued and it became imperative to make definite allocations for construction units from the beginning of the 1944 fiscal year.

Since personnel for construction units feel outside the purview of the National Mobilization Program, it was recommended that such drastic measures be used as mobilizing Koreans and Formosans, lowering the age for conscription and the suspension of students in schools of higher education.

With a view toward raising the potentiality of construction units, it was considered imperative that the following matters be decided immediately.

1. Competent personnel be assigned as unit commanders.

2. Plans be instituted whereby enlisted personnel, under the technical civil engineering personnel system, be promoted to technical officer rank.

3. About half the strength of construction units be composed of civil engineering technical personnel and constructions units be considered combat units.

4. Units be trained for a minimum of two months before departure from Japan.

Personnel Bureau

In order that the personnel requirements under this plan might be fulfilled, it was necessary to recruit an additional 1,087,000 men to fill the shortage expected at the end of the 1944 fiscal year, in excess of the 205,000 personnel to be recruited under the Army-Navy Agreement for the same fiscal year.

Personnel requirements under this plan as compared with actual personnel allotted was as follows:

Classification	End of 1943 Fiscal Year	End of 1944 Fiscal Year	End of 1945 Fiscal Year	Remarks
Wartime Personnel Requirement	848,640	1,717,772	2,174,391	1. The figures for the 1944 fiscal year and onward did not include the number of recruits. 2. Wartime personnel requirements were set at 145 per cent of service complement.
Actual Personnel	633,646	630,982	542,444	
Shortage	214,994	1,086,790	1,631,947	

Preparations were under way for the recruitment of 68,000 volunteers during the 1944 fiscal year. It was recommended that this figure be increased to 100,000.

After due study, it was felt that this increase could be accomplished during the 1944 fiscal year in the following manner:

1. Increasing the conscription quota for active service personnel. The age of those liable for conscription was to be lowered by one year in order that the greatest number possible might be called into service between 1 December 1944 and March 1945. It was expected that by this method personnel strength would be increased by 150,000 in addition to the goal established by the Joint Army-Navy Agreement.

As a result of lowering the age of persons liable for conscription, it was expected that 1,200,000 men liable for active service and reserves, plus 2,400,000 of the Second Militia would be called into service in the Army and Navy during the two-year period from

the end of 1943 to the end of 1945. Of these, it was assumed that 150,000 would be called during the latter part of the 1944 fiscal year.

2. Approximately 300,000 of the 1,500,000 members of the former Second Militia were to be called into service in the Navy.

It seemed reasonable to expect that the maximum possible increase of personnel strength for the 1944 fiscal year would be 550,000. This figure coincided with the figure set for increases in personnel strength under the Revised Fifth War Preparations Plans.

Inasmuch as meeting the personnel requirements mentioned above was considered to be very difficult, it was considered impossible to recruit the additional 1,087,000 men required to fulfill this plan, both from the standpoint of manpower mobilization and the inadequacy of training facilities. Under the condition existing, it was recommended that priorities be set on the allocation of manpower, while, at the same time, economy of personnel be practiced to the utmost and the activation of units not urgently needed be postponed. At the same time, the need was recognized for urgent measures to meet the personnel requirements set forth in the Revised Fifth War Preparation Plan by conscripting recruits and providing training facilities for such personnel.

Emergency measures for repletion of the ranks of officers, reserve officers, special duty officers and warrant officers were to be instituted separately, after the above policy had been established.

Education Bureau

Priority was to be given to the education of aeronautical personnel; however, the education of general personnel was to be accelerated in closer coordination with the aeronautical education program.

The greatest stress was placed on maintaining and improving the fighting potential of operational units. Replacement of personnel, therefore, for the purpose of their education was kept to a minimum. Since universal high grade education was impossible, the principle of maintaining crack outfits was to be followed.

It was maintained that the training of operational units should be conducted in the field by dispatching guidance personnel who would institute short training courses.

Since definite figures had not been established for either personnel strength or specialists, a concrete statement of views could not be made on the execution of the plan. The following, however, gives an indication of the difficulties which had to be met and overcome:

Due to the inadequacy of educational facilities, officers and men from the guard and defense units were used as instructors for the ordinary courses of the Gunnery (AA) School and Naval Mine School.

The education period had been shortened to a minimum. It was considered that no further shortening of the courses was possible

unless radical changes were adopted in regard to teaching material, equipment and instructors. Night instruction, as well as Saturday and holiday classes, was in effect and the elimination of a winter vacation for officer candidate colleges was planned.

During the 1944 fiscal year, the merit graduation system (a system of graduating students as soon as they attained the required standard, even before the close of the regular term) which had been in effect in the Communication School, was to be extended and intensified. By this means, it was expected that the number of graduates would be increased by approximately 20 percent.

Prior to this, various officer candidate colleges had hesitated to graduate students prior to the completion of a term as the curriculum in those colleges consisted of basic subjects. With the worsening of the war situation, however, concrete plans to expedite the graduation of students were considered.

The shortage and deterioration in quality of instructors, as well as the lack of teaching materials, caused serious bottlenecks in the education program. Better cooperation of the various authorities concerned was urged to overcome this situation.

It was recommended that, in view of the lack of transportation facilities, new recruits be given education in the ordinary courses immediately upon completion of the basic training course. Where this proved impossible, plans were under survey whereby the deficit

could be overcome by intensification of field training and through the existing system of qualifying personnel by examination.

Military Preparation Bureau

According to a draft drawn up by the Cabinet Planning Board on 27 August 1943 in regard to the General Outline of the Materials Mobilization Plan for the 1944 fiscal year, materials would be available for construction of 1,050,000 tons of cargo ships (1,400,000 tons with tanker and other types of vessels included) and 430,000 tons of wooden cargo vessels (500,000 tons with other types of wooden vessels included). On that basis, the total transport capacity for Army, Navy and civilian use would be 60,880,000 tons a year, or a decrease of 327,000 tons in transport capacity as compared with the 1943 fiscal year. When the new requirements were received from the Supreme Command for an additional requisitioning of 360,000 tons of shipping, therefore, a sharp production increase was urged. A tentative plan was devised by the Cabinet Planning Board after reexamining the draft previously drawn up after joint study by the Army and Navy (HI Study). The new plan called for:

Steel Ship Construction	1,800,000 tons (of which 1,350,000 tons were cargo vessels)	Total transport capacity required: 47,000,000 tons. This was a 17,000,000 tons increase as compared with the draft of the General Outline
Wooden Ship Construction	400,000 tons	
Ordinary Steel Supply	5,100,000 tons	
Aircraft Production	Total Army and Navy: 30,000 planes	

To meet these requirements, it was necessary to attain at least a 2,000,000 ton level for steel ship construction, 5,500,000 ton level for ordinary steel supply and 40,000 tons for aircraft production for the Army and Navy. However, with the limited resources of the country, it was deemed impossible to attain these goals.

In order to secure the supply of materials necessary to meet the goals set by the "HI" Study for the fiscal year 1944, based on the supply distribution basis reached by the Cabinet Planning Board, it was imperative that the production of iron, coal, aluminum and copper be boosted. Under these circumstances, it was necessary to limit the allocation of top priorities to munition industries. If a disproportionately large amount of material was allocated to munitions, the capacity to meet supply requirements in other directions would drop sharply, resulting in the nation's inability to secure the required power for a counterattack.

It was considered difficult in the allocating of supplies between the Army and Navy to raise the ratio for the Navy any higher than its 1943 ratio, unless a special operational agreement was negotiated.

In allocating supplies to the Navy, priority was given to naval aircraft production. Efforts were made to reach a goal of 26,000 planes during the fiscal year 1944 and to bring the supply of fuel up to meet the requirements of the aircraft produced. It was realized, however, that should allocations be made according to the foregoing priority system, it would be impossible to execute plans which

would meet the requirements of the established armament program of the Third Phase Operation of the Navy.

It was deemed necessary that insofar as aircraft were concerned, an operational agreement be concluded that would enable the execution plans based on the allocation of supplies in the ratio of two for the Navy and one for the Army. This would mean 20,000 planes for the Naval and 10,000 planes for the Army.

Steel ship construction for the 1945 fiscal year should be held to the level of the 1944 fiscal year -- 1,800,000 tons. Thus, about 250,000 tons of the 550,000 tons of the advance allocation of steel for the 1944 fiscal year's ship construction were to be set aside and allocated at the ratio of two to one.

Allocation of materials for war preparations, other than aircraft, were to be set at the same ratio between Army and Navy as existed during 1943.

It was considered that further reduction of supplies for civilian consumption would be difficult. Actually, it was considered necessary to increase allocations in this category.

Adoption of these measures would have enabled the production of approximately 20,000 planes as well as about one- half of the planned output of naval vessels for the revised Fifth Plan. Meanwhile, in view of the fact that stockpiles of war preparation stocks and running stocks were being dissipated, it was important that the various executive departments concerned institute policies whereby clear

directives would be issued on the execution of war preparations plans devised for the most effective use of critical materials and war preparations be conducted on the basis of a priority system.

Labor

The Empire was faced with the urgent need to mobilize a labor force of 1,800,000 workers. Inasmuch as the majority of the persons remaining as a potential source for the labor force fell into the classification of deformed, disabled or feeble persons, it was difficult to mobilize more than 1,000,000 workers (including 300,000 females) under the current system. To secure the required number, therefore, there was no alternative but to resort to emergency measures. These measures included:

Increasing the mobilization of women to a total labor draft of 1,300,000.

Elimination of all schools not conforming to the provisions of the School Ordinance of the Education Ministry. From this source they would be able to obtain:

Males	50,000
Females	50,000
Total	100,000

Temporary closure of certain schools conforming to provisions of the School Ordinance of the Education Ministry. Students of liberal arts in institutions of higher education would yield:

Males	100,000
Females	10,000
Total	110,000

Students in the last year of second schools:

Males	160,000
Females	160,000
Total	320,000

It was believed that a total of 1,830,000 people would be obtained from these sources.

In view of the foregoing, the success or failure of the armament program for the 1944 fiscal year depended primarily on increasing and maintaining the transportation capacity at least at the level proposed in the "HI" Study.

Since the carrying out of these measures was the direct responsibility of the Navy, it was important that the Navy's position in such matters as production and the strengthening of national power be recognized. The completion of the above armament program depended on the overcoming of many difficulties in the political, economic and industrial fields. Under the circumstances, it was essential that unity be achieved between the Army and Navy, as well as between the armed services, the government and the people.

During the conference for the study of war preparations a great many contradictions were found in the reports of the different executive departments. There was a good deal of exaggeration, as was

more or less the case with most formal conferences at that time, caused by wishful thinking. For example, in drafting its plan for the construction of 30,200 aircraft, the Navy Aeronautical Department counted on the Army factories to produce 4,000 aircraft. Even the remaining 26,000 included several thousand which depended directly on supplies, as well as technical and manpower assistance from the Navy Technical Department as a condition of production. Also, the aviation fuel production plan of the Stores Bureau was based on the large-scale use of the production facilities of the Navy Technical Department, without having ascertained if these facilities were available. It was found that all plans devised by executive departments were based, to no small degree, on wishful thinking and arbitrary assumptions. Especially was this true in regard to the allocation of materials, the mobilization of manpower and the estimates of national strength.

In the early part of September 1943, the Supreme Command issued a demand requisition for 360,000 tons of vessels (plus tonnage to cover monthly losses) which it stated was to be used to restore transport and supply capacity hit by the loss of vessels in the Solomon Islands area and other theaters of operation. This was considered necessary to turn the tide of war. Officers in charge of the Army, Navy, Cabinet Planning Board, Ministry of Commerce and Industry and General Maritime Bureau conducted a joint study on the subject, which lasted ten days. This study became known as the "HI" Study. The

results of this study showed a marked decrease in national strength. This was particularly true in the case of munitions production. It was reported that the situation in regard to munitions production was such that even if all possible emergency measures were taken, the war situation improved and the transport capacity developed along satisfactory lines, the figures given below would represent the maximum production possible. These figures were approved at the 27 September 1943 meeting of the Liaison Conference of the Government and Imperial General Headquarters. At the same time, approval was given to the proposal to reduce the ship tonnage requisitioned for Army and Navy to 250,000 tons with a monthly replacement up to 35,000 tons to compensate for operational shipping losses.

The 1944 goals decided for munitions production were:

Aircraft	40,000 planes
Aluminum	210,000 tons
Special steel	1,000,000 tons
Ordinary steel materials	5,000,000 tons
Electrolytic copper	150,000 tons
Steel Ship Construction	1,800,000 gross tons
Wooden Ship Construction	400,000 gross tons

When this program was approved, the difficulty of its execution was repeatedly stressed by both the President of the Planning Board and the Minister of Commerce and Industry. On that occasion, the Supreme Command of the Army called for the allocation of 25,000 airplanes as against the 30,000 requested by the Navy General Staff.

This made a total of 55,000 planes, as against the 40,000 set as the production target. Serious controversies were expected as at the conference of the Naval War Preparations Research Committee, the Chief of the Military Preparation Bureau had contended in his report that the key to materializing the Third Phase War Preparations was to allocate aircraft production for the Navy and Army in the ratio of 2 to 1. He also stated that, even if such items as alumimum and special steel were to be distributed at this ratio (to which the Army was most unlikely to agree) it would be more effective for the maintenance of the overall war potentiality of Japan to adjust the number of airplanes actually produced at 30,000, of which 20,000 should go to the Navy and 10,000 to the Army.

Tentative Compromise Plan Proposed by the Navy Affairs Bureau ("HI" Study)

In view of the controversies between the departments, the Navy Affairs Bureau keenly felt the need for unifying ideas in the Navy and promptly presented a tentative plan. It was felt that the view taken by the Military Preparation Bureau was the most impartial and correct from the standpoint of national power. Meanwhile, an inspection which was being conducted for increasing aircraft production, with Mr. Ginjiro Fujiwara as administrative inspector, brought hopes that by enforcing measures to improve production management, technique and economy of materials, it would be possible to attain some

increase in production. The Navy Affairs Bureau, therefore, adopted a new 23,000 planes plan as against the 26,000 plan called for by the Navy General Staff. At the same time, the Bureau attempted to obtain part of the production capacity and materials of the Army through unified efforts of the Navy Ministry and Naval General Staff. The contents of the proposal, which was confined to matters relating to the Navy Aeronautical Department and the Navy Ship and Ordnance Department, were as follows:

26 September 1943

First Section, Navy Affairs Bureau

Adjustment plan for the Third Phase Military Preparations (for the Navy Technical Department and the Navy Aeronautical Department only)

In view of the present war situation we have made the following modification of the program. It is desired that the modified plan be fully executed at all costs.

The Navy Aeronautical Department

Aircraft production for 1943 fiscal year will be revised to not less than 10,000.

The aircraft production goal for 1944 fiscal year will be revised to 23,000, and this production plan will be promptly effected. For this purpose, the Navy Technical Department will cooperate with the Navy Aeronautical Department through a large scale transfer to the latter of personnel, techniques, materials and production facilities. At the same time, the priority given to the strength will be reconfirmed and throughly practiced by the whole Navy.

Note: 1. With the progress of the present negotiations on the aircraft agreement between the Navy and the Army, measures will be taken to incorporate successively successful agreements as an addition to the plan.

2. Although it is extremely difficult, under the present conditions, to meet fully additional demands for materials within the present fiscal year, all possible efforts will be exerted to satisfy the requirement.

The Navy Technical Department

In the 1943 fiscal year, maximum efforts will be exerted for pushing the established plan.

The production goal for 1944 fiscal year will be promptly reduced so as to meet the supply of approximately 400,000 tons of steel. Utmost efforts will be exerted to accelerate the execution of these measures through utilization of all the materials remaining from the previous fiscal year and through acquisition beforehand of materials. At the same time, more exhaustive measures will be taken for the standarization of vessel types, an improvement in the quality of parts, and the thorough execution of the priority system.

The Navy Aeronautical Department witheld commenting on this compromise plan formulated by the Navy Affairs Bureau pending publication of the findings of the administrative inspection by Mr. Fujiwara, as the Department expected this report to show prospects of improvement in the situation.

The Navy General Staff, on the other hand, was adamant in its opposition to decreasing aircraft production by 3,000 planes and refused to listen to the reasons for the reduction. Under the circumstances, the Navy Ministry was compelled to refrain from establishing a definite goal. In the end, even though the Navy Ministry did not accept the 26,000 plane goal, it decided upon a general policy of giving top priority to aircraft production in order that the greatest number of planes would be produced in the shortest possible time.

Meanwhile, it attempted to bring about the cooperation of the Navy Aeronautical Department and the Stores Bureau with the Navy Technical Department. It was also decided that efforts would be made to exploit the results of the current administrative inspection with a view to transferring production capacity from the Army.

Negotiations with the Army in Regard to Allocation of Materials and Production Facilities for Aircraft Production

The aluminum production goal of 210,000 tons set by the "HI" Study proved to be a production bottleneck, limiting the aircraft production goal for the 1944 fiscal year to 40,000 planes. It was feared that, should the standing principle of equal allocation to the Army and Navy be followed, naval aircraft production would be held to a level of 20,000 planes. For that reason, the Navy took the view that the minimum as proposed by the Military Preparations Bureau, which allotted twice the amount of material to the Navy as to the Army, was necessary and that operational requirements called for 30,200 aircraft. This figure included 26,000 as the minimum production goal, plus the hoped for increased production of 4,000 planes which would result from the current administrative inspection.

It was unanimously agreed that, armed with the necessary operational, administrative and theoretical data, the Chief of the Naval General Staff and the Minister of the Navy, together with their staffs, would, as a unit, push negotiations with the Army to obtain

approval of these proposals. Bitter arguments ensued during September and October, but the Army remained adamant in refusing to accept the Navy's proposals. In the end, not even a procedural agreement was reached. Finally, it was decided between the Army and Navy Minsters that the standing allocation ratio of equal distribution to the Army and Navy would remain in effect.

Studies made at this time showed that, on an average, the aluminum consumption per plane was 5.3 tons for the Army and 5.7 tons for the Navy. This would mean that, should the above distribution be made, the production of naval aircraft would fall short of that for the Army.

In order to attain the desired production goal, therefore, the Navy Ministry was forced to rely upon drawing stores from warehouses, improvement of production techniques and the diversion of production facilities from the Navy Technical Department. In practice, however, it was difficult to transfer the personnel and facilities of the Navy Technical Department due to long standing traditions and prerogatives of both departments.

Interim Decisions

With the failure of the above negotiations, the Navy Affairs Bureau was forced to propose that the Third Phase Preparations be started under the conditions set forth below. This procedure was, at the same time, approved by the Emergency War Preparations Acceleration Department.

1. The concentrated efforts of the entire Navy were to aim at producing 9,818 (commonly given as 10,000) planes for the 1943 fiscal year, and 25,905 (commonly given as 26,000) planes for the 1944 fiscal year. This was the goal given in the fundamental plan of the Navy Aeronautical Department, less the output expected from Army facilities.

2. Conditions for achieving the production were:

a. Maximum effort would be exerted for achieving production by requesting the cooperation of the Navy Technical Department.

b. In order to procure raw materials and parts and to improve production technique (especially to reduce waste) highly specialized technical guidance parties were to be organized and dispatched on an itinerant basis.

c. A plan was to be formulated which would provide adequate interchange of personnel between the Navy Technical Department and the Navy Aeronautical Department. The plan would be based on the new organization and personnel assignments of the two departments.

3. The reduction of naval ship construction, which would inevitably occur with the transfer of production facilities from the Navy Technical Department to the Navy Aeronautical Department was to be accepted.

4. Since the figures given for materials required in the Fuel War Preparations Plan were far too large to hope for early fulfillment, requests for materials, parts and machinery were to be

presented with more concrete data and the Navy Affairs Bureau was to adjust these requests upon deliberation with the Navy Technical Department and the Stores Bureau.

5. Negotiations with the Army, although they had failed for the time being, were not to be abandoned. Also, efforts were to be made to lessen the deficiencies in war preparations both by attempting to achieve an increase in the actual production of naval planes and by encouraging the cooperation of Army planes in naval operations, through operational negotiations between the Army and the Navy.

These policies were devised at the beginning of 1944.

Problems Related to Administrative Inspection and Munitions Ministry

During September and October 1943, while the Navy was engaged in the study of the Third Phase Armament Program, an administrative inspection of the Japanese aircraft industry was conducted with Mr. Ginjiro Fujiwara as the special inspector. This inspection contributed a great deal to the improvement of plant management, economy of materials, repletion of equipment and technical guidance, especially in casting and forging, in many companies.

The inspection report stated that the production goal of 40,000 planes set in the "HI" Study could be attained, although considerable difficulty would be encountered in producing sufficient engines.

It also recommended unified control of munitions production, since the deadlock brought about by competition between the Army and Navy, with their excessive variety of aircraft, was hindering the increase in production. The Army and Navy finally agreed to this recommendation and to the transfer of administrative powers in regard to the production of aircraft and related weapons to a General Air Ordnance Bureau to be established in the Munitions Ministry. They further agreed to support the bureau by sending to it their personnel records.

Some doubt was entertained by administrative authorities of the Navy as to whether the Navy Minister should be relieved of the final responsibility for munitions production at this crucial stage in war preparations. They also felt that such a drastic change in administration might cause a decrease in production. Despite these apprehensions, however, the Navy could not oppose the plan formed on the findings of the administrative inspection since it had no concrete substitute plan to offer. Measures were, therefore, taken to activate the new organization at the end of November 1943 and transfers were completed by 15 January 1944. The enforcement of these measures proceeded with comparative ease as far as the establishment within the Munitions Ministry of the General Air Ordnance Bureau in which the Army, Navy and civilians were duly represented.

Execution Plan and Outline of its Progress

The formulation of the Third Phase War Preparation Plan was the most difficult program ever undertaken by the Navy in peacetime or in wartime, since it was drawn up at a time when the war situation had taken a decided turn for the worse. Moreover, the plan itself contained many transitional elements which were subject to change in the future. This, naturally, had many disadvantages, particularly in the enforcement of the shipbuilding program, which had to be spread over a longer period of time than the aircraft program. The effect of the "aircraft first" policy had a considerable effect on the shipbuilding plan. However, this program, known as the Third Phase War Preparation Program, remained as the backbone of the Japanese Naval War Preparation Plan until almost the end of the war. It was revised in the last phase of the war following a change of policy calling for an increase in special attack weapons.

The outline of the Final War Preparations Program and its enforcement was as follows:

Shipbuilding Program

Naval vessels newly added to the existing shipbuilding plan in 1943 and 1944 to be begun in 1944 and 1945 were as shown on Chart 1. Government appropriations approved by the Diet for these additional vessels were:

1944 fiscal year ¥ 2,186,709,000

1945 fiscal year ¥ 539,225,000

Further vessels were added in 1944 to those listed in Chart 1 as part of the wartime shipbuilding program for 1945 fiscal year. These were as shown on Chart 2. Actual construction of naval vessels in 1943 and 1944 fiscal years based upon all prearranged programs was completed as shown on Chart 3.

Ships that were dropped from the construction program before or during construction are shown below:

Type of Ship	Program	No of Ships on Construction Program	No of Ships Cancelled	No of Ships Construction Suspended
Cruiser (B)	Revised 5	2	2	
Aircraft Carrier	Emergency	1		1 The IBUKI, Converted from a cruiser.
	Revised 5	18	13	2
Seaplane tender	Emergency	1	1	
	Revised 5	3	3	
Emergency net layer	Revised 5	1	1	
Submarine tender	Revised 5	3	3	
Destroyer (A)	Emergency	16	8	
	Revised 5	8	8	
Destroyer (B)	Revised 5	23	18	
Submarine (A)	Revised 5	6	3	

Naval Vessels Added to 1943 - 1944 Shipbuilding Plan

Type of Ship	Number of Ships Planned in Fiscal 1943	Number of Ships Planned in Fiscal 1944	Standard Displacement (ton)	Speed (kt)	Cruising Range (kt - nautical mile)	Main Armament	Remarks
Destroyer (D)		6	1,350	27.3	18 - 3,500	12.7-cm double mounted gun ..... 1 12.7-cm single mounted gun ..... 1 25-mm triple mounted machine guns ... 4 Type 3 torpedo tube 1	Improved model of "Matsu"
Submarine (D)		7	1,660	13.0 (Surface)	13 - 5,000 (Surface)	25-mm triple mounted machine gun .... 1 25-mm double mounted machine guns ... 2 8-cm double mounted mortars 2	Improved model. Loading capacity 150 tons of light oil.
Submarine (E)		44	1,250	19.5 (Surface)	14 - 16,000 (Surface)	12-cm gun ..... 1 13-mm machine guns ..... 2 Torpedo tubes 6	New model.
Submarine (High speed)		23	1,000	19.0 (Underwater)	3 - 45 hours (Underwater) according to the speed	25-mm single mounted guns ..... 2 Torpedo tubes 4	New model. High speed while submerged.
Submarine Transport		13	370	10.0 (Surface)	10 - 3,000 (Surface)	25-mm single mounted machine gun 1	New model.
Escort Ship (A)		21	940	19.5	16 - 5,000	12-cm double mounted gun ..... 1 12-cm gun ..... 1 25-mm double mounted machine guns ... 2 Depth charges 120	"UKURU" Type
Escort Ship (C)	66	66	745	16.5	14 - 6,500	12-cm gun ..... 1 25-mm triple mounted machine guns ... 2 Depth charges 120	New model
Escort Ship (D)	45	99	740	17.5	14 - 4,500	12-cm gun ..... 1 25-mm triple mounted machine guns ... 2 Depth Charges 120	New model
Special Duty Ship (Special)	22	24	1,500	22.0	18 - 3,700	12.7-cm double mounted gun ..... 1 25-mm triple mounted guns ..... 3 Loading capacity: Large landing barge ..... 4 Tanks ..... 7 "KOHYU" midget submarines. 2 "KAITEN" human torpedoes.. 6 400-500 tons of cargo, or 200-400 personnel	New model
Landing Craft	63	40	950	16.0	14 - 1,700	8-cm gun ..... 1 25-mm triple mounted machine guns ... 2 Loading capacity: 7 ton tanks ..... 14 15 ton tanks ..... 9 12.5 ton tanks ..... 7 28.3 ton tanks ..... 5 or 22 ton tanks ..... 4 or 5	New model
Auxiliary Submarine Chaser (Wooden)	100		130	11.0	10 - 1,000	25-mm machine gun 1	No 1 Type
Auxiliary Patrol Boat (Wooden)	62	208	218	7.0	6 - 15 days	25-mm triple mounted machine gun 1	New model
Auxiliary Patrol Boat (Steel)	50 or 70 of the above will be steel vessels						
Motor Torpedo Boat (B)	1,580		20	23-34	full speed 300	13-mm machine gun ..... 1 Torpedoes ..... 2 Depth charges 6	New model

Chart No 1

Type of Ship	Number of Ships	Standard Displacement (ton)	Speed (kt)	Cruising Range (kt - nautical mile)	Main Armament	Remarks
Submarine (Small)	40	320	10.5 (Surface)	10 - 3,000	7.7-mm machine gun ..... 1 Torpedo tubes 2	New model.
Mine Layer	6	3,000	11.0		12-cm dual purpose gun ..... 1 25-mm triple mounted machine guns .. 2 25-mm double mounted machine guns .. 2 25-mm single mounted machine guns .. 4 Mines 380	Improved model of Type 2-B
Light Mine Layer	2	720	20.0	14 - 2,000	12-cm gun ..... 1 25-mm double mounted machine gun ... 1 Mines 36	"Ajiro" type
Auxiliary Escort Ship (A)	6	260	15.0	12 - 1,500	45-mm single mounted machine gun ... 1 25-mm single mounted machine guns .. 6 Depth charge release ..... 4 "Kaiten" human torpedoes 2	New model. (Steel vessel)
Auxiliary Escort Ship (B)	60	260	12.5	10 - 1,500	40-mm single mounted machine gun ... 1 25-mm single mounted machine guns .. 6 Depth charge release ..... 4 "Kaiten" human torpedoes 1	New model (Wooden)
Oil Tanker	4	18,500	16.5		8-cm gun ..... 1 25-mm triple mounted machine guns .. 2	Improved model of 1TL Type ship. Loaded with 13,500 tons of oil for supply.

Chart No 3
-13-

Construction of Naval Vessels 1943 - 1944

Type of Ship \ Month and Year	1943 Fiscal Year													1944 Fiscal Year												Grand Total
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	
Aircraft Carrier												1	1					2		1	1					4	5
" (converted)							1	1	1	1			4														4
Cruiser			1						1				2								1					1	3
Destroyer	2	1		3			1	1	2		1	2	13	1	2	3	1	3	4	1	3	3	4	1	6	32	45
Submarine	3	3	4	4	2	4	3	5	3	5	3	2	41	1	4	2	3	4	4	2	3	5	2	5	2	37	78
Escort Ship		3	1	2	1	1	2	3		1	8	13	35	6	4	4	6	9	10	14	9	17	8	11	12	110	145
Naval Transport (Special)												1	1			3		3	2		3	3				14	15
Landing Craft											2	4	6	2	3	4	4	3	13	5	3	1	3	2	1	44	50
Mine Sweeper	1		1	2			1				1		6		2	1	1									4	10
Submarine Chaser		2		1	1	1	1	4	1	2		3	16		1	1	1			1						4	20
Light Mine Layer	1												1				1									1	2
Special Duty Ship	2	1				1		2					6									1	1			2	8
Auxiliary Patrol Boat																								2	4	6	6
Auxiliary Submarine Chaser	8	8	6	6	12	5	11	5	13	4	8	9	95	6	9	10	13	12	10	11	14	7	5			97	192
Auxiliary Mine Sweeper	2	2	2	2			1						9														9

Submarine (B)	Supplementary	7	4
	Revised 5	32	32
Submarine (C)	Emergency	6	3
	Supplementary	5	2
	Revised 5	40	40
Submarine (Medium)	Emergency	11	4
	Supplementary	15	14
	Revised 5	43	43
Submarine (Special)	Revised 5	18	9
Submarine (Auxiliary)	Emergency	3	1
Submarine (E)	Wartime Construction 1944	44	44
Mine sweeper	Emergency	28	17
	Revised 5	36	36
Submarine chaser	Emergency	20	1
	Revised 5	30	27
Oil tanker	Extraordinary	4	3
	Emergency	4	2
	Revised 5	15	15
Target ship for bombing	Revised 5	5	3
Icebreaker	Revised 5	1	1

Store ship	Revised 5	10	10
Repair ship	Revised 5	2	2
Survey ship	Revised 5	1	1
Light Mine layer	Emergency	14	13
	Revised 5	12	12

Aircraft Production

It was necessary to produce some 11,500 planes during the 1943 fiscal year and about 30,000 planes during the 1944 fiscal year in order to secure the required operational air strength of 5,876 planes and 14,548 planes at the beginning of the 1944 and 1945 fiscal years, respectively, as demanded by the Naval General Staff and to provide sufficient machines for training. In connection with the above figures, the Aeronautical Department devised a plan calling for 9,818 planes (generally referred to as 10,000 planes) and 25,905 planes (generally referred to as 26,000 planes). With this plan, the Navy made a good start in the production of aircraft. Details of the plan are given below:

Airplane Production Plan under Urgent Program for a Drastic Increase in Air Strength

	Type of Planes	Fiscal Year 1943	Fiscal Year 1944
Class A Fighters	Zero Fighter	2,890	4,105
	Carrier Fighter Type 17, Experimental		650

Class-B Fighters	Interceptor Mitusbishi No 14 Experimental	540	1,575
	Interceptor Kawanishi No 1	260	450
	Interceptor Kawanishi No 1 Improved		1,920
	Interceptor Nakajima No 18 Experimental		75
Class-C Fighters	Land Reconnaissance Plane Type 2	220	1,500
	Twin-engined Bomber Type 15 Experimental		180
Carrier Borne Bomber and Attack Plane	Carrier Bomber Type 99	600	530
	Carrier Attack Plane Type 97	250	
	Carrier Bomber Type 13 Experimental	460	2,055
	Carrier Attack Plane Type 14 Experimental	460	810
	Carrier Attack Plane Type 16 Experimental	70	675
Carrier (Land) Reconnaissance Plane	Carrier Reconnaissance Plane Type 2	130	330
	Carrier Reconnaissance Plane Nakajima No 17 Experimental		640
Land Bomber	Twin-engined Bomber Type 15 Experimental	135	1,500
Land Attack Plane	Land Attack Plane Type 1	785	1,375
Submarine Attack Plane			100
Reconnaissance Seaplane	Observation Seaplane Type Zero	460	120

	Seaplane Bomber Type 14 Experimental	65	780
	Reconnaissance Seaplane Type Zero	430	450
	High Speed Reconnaissance Seaplane Type 14, Experimental	17	
Seaplane Fighter	Seaplane Fighter Kawanishi No 15 Experimental	103	
Patrol Plane	Patrol Plane Type 17 Experimental		450
Submarine Reconnaissance Plane	Reconnaissance Seaplane Type Zero Small	70	
Training Bomber	Training Bomber Type 2	81	130
Transport Plane	Transport Plane Type Zero	72	525
Training Planes		1,650	5,000
	Total:	9,818	25,905

After the Third Phase War Preparations Plan was initiated, the production of aircraft attained remarkable results. Particularly during the 1943 fiscal year extremely favorable progress was made. The monthly aircraft production gradually increased until the long-awaited goal of 1,100 planes monthly was surpassed in March 1944 and the total annual production reached 9,481 planes. From the beginning of 1944, however, little increase was shown in production.

The monthly production rate kept fluctuating between the 1,100 and 1,200 levels, which was far below the increases calculated in the program. The monthly output dropped to around 1,000 planes

after December 1944, due to enemy air raids on the Homeland and the commencement of the manufacture of planes for special purposes. This resulted in the drop of total annual output to 13,479 planes, only 50 percent of the goal for that year.

The Munitions Ministry might have ascribed this failure in the Emergency Production Program to numerous disadvantages involving machines, facilities, materials, technique or labor. However, the Navy, while admitting the inevitability of the production drop from the latter part of that year, nevertheless attributed the failure in the earlier period mainly to the excessive expansion of facilities by the entrepreneurs under the pretext of a shortage in plant capacity, and to the resultant dispersion of technical facilities.

Chart 4 indicates the actual aircraft production, classified by type of plane, in the 1943 and 1944 fiscal years.

Note: This table covers, for the sake of reference, not only the above-mentioned two years, but also other war years.

Actual Aircraft Production (Monthly and Quarterly) for 1943 and 1944,
also figures for 1941, 1942 and 1945 fiscal years

	Type of Aircraft	1941 (Dec-Mar)	1942	1943												Total	1944												Total	1945 (up to Aug)	Grand Total
				I			II			III			IV				I			II			III			IV						
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar			
STANDARD PLANES	Carrier Fighter	315	1,691	217	221	225	230	241	336	285	312	355	363	269	362	3416	339	327	300	278	367	244	339	360	268	251	167	247	3487	1014	9923
				663			807			952			994				966			889			967			665						
	Interceptor	1	13	2	2	3	8	11	27	35	37	42	35	67	75	344	117	58	116	127	117	125	129	121	95	89	97	140	1331	337	2026
				7			46			114			177				291			369			345			326						
	Night Fighter	0	54	10	11	12	8	7	12	18	22	22	25	18	18	183	35	40	40	27	35	40	23	0	0	0	0	0	240	0	477
				33			27			62			61				115			102			23			0						
	Carrier Bomber	81	271	45	53	64	72	79	82	98	114	132	140	147	141	1167	125	133	118	107	106	122	116	133	150	115	98	101	1424	246	3189
				162			233			344			428				376			335			399			314						
	Carrier Attack Plane	0	113	27	35	35	36	48	29	34	40	34	30	25	39	412	36	36	57	79	85	76	96	87	60	75	83	94	864	133	1522
				97			113			108			94				129			240			243			252						
	Land Reconnaissance Plane	0	0	0	0	0	0	0	0	0	2	2	1	2	6	13	6	0	1	4	8	19	25	26	25	30	38	64	246	204	463
				0			0			4			9				7			31			76			132						
	Land Bomber	0	0	0	0	0	0	2	4	4	10	25	11	20	35	111	46	46	51	47	48	69	75	88	84	90	52	52	748	240	1099
				0			6			39			66				143			164			247			194						
	Land Attack Plane	219	672	56	55	57	58	57	56	53	57	63	53	46	50	661	73	70	79	89	85	91	109	108	60	55	60	50	929	122	2603
				168			171			173			149				222			265			277			165						
	Patrol Plane	0	0	0	0	0	0	0	1	0	1	1	1	1	2	7	1	2	3	3	3	3	8	11	14	16	11	13	88	58	153
				0			1			2			4				6			9			33			40						
	Land Transport Plane	30	91	6	5	6	0	5	5	3	5	5	8	14	15	77	3	3	17	14	16	19	20	16	17	19	9	21	174	40	412
				17			10			13			37				23			49			53			49						
	Seaplane Fighter	0	183	25	22	20	12	8	82	11	13	15	9	10	10	237	0	0	0	0	0	0	0	0	0	0	0	0	0	0	420
				67			102			39			29				0			0			0			0						
	Reconnaissance Seaplane	27	272	35	38	28	44	49	41	44	45	45	51	49	51	520	53	53	62	52	59	40	61	70	73	49	47	32	651	57	1527
				101			134			134			151				168			151			204			128						
	Observation Seaplane	19	218	28	32	19	20	27	40	48	50	50	50	40	35	439	30	35	30	15	6	0	0	0	0	0	0	0	116	0	792
				79			87			148			125				95			21			0			0						
	Seaplane Bomber	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	1	1	1	2	1	1	1	2	2	14	11	27
				0			0			1			1				2			3			4			5						

Chart No 4

Actual Aircraft Production (Monthly and Quarterly) for 1943 and 1944, also figures for 1941, 1942 and 1945 fiscal years (Cont'd)

	Type of Aircraft	1941 (Dec-Mar)	1942	1943												Total	1944												Total	1945 (up to Aug)	Grand Total
				I			II			III			IV				I			II			III			IV						
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar				
STANDARD PLANTS	Flying Boat	24	87	3	9	5	6	7	8	7	8	11	9	9	10	92	9	8	8	5	3	3	3	4	6	4	2	2	57	3	263
				17			21			26			28				25			11			13			8						
	Combat Plane Total	716	3665	454	483	474	494	541	723	641	716	802	786	718	849	7681	873	811	884	848	939	852	1006	1025	853	794	666	818	10369	2465	24896
				1411			1758			2159			2353				2568			2639			2884			2278						
	Training Plane	30	309	74	95	98	94	106	114	142	165	191	212	223	281	1795	297	281	278	262	212	147	153	123	132	157	154	158	2354	378	4866
				267			314			498			716				856			621			408			469						
	Training Seaplane	91	241	0	0	1	1	1	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	337
				1			4			0			0				0			0			0			0						
	Training Plane Total	121	550	74	95	99	95	107	116	142	165	191	212	223	281	1800	297	281	278	262	212	147	153	123	132	157	154	158	2354	378	5203
				268			318			498			716				856			621			408			469						
	TOTAL	837	4215	528	578	573	589	648	839	783	881	993	998	941	1130	9481	1170	1092	1162	1110	1151	999	1159	1148	985	951	820	976	12723	2843	30099
				1679			2076			2657			3069				3424			3260			3292			2747						
SPECIAL PLANES	Gun, Type 11																			0	0	10	50	95	93	160	197	150	755	0	755
																				10			238			507						
	Gun, Type 22																													50	50
	Shinsui																									0	0	1	1	4	5
																										1					
	Kikka																													1	1
	Total																					10	50	95	93	160	197	151	756	55	811
																				10			238			508						
	GRAND TOTAL	837	4215	528	578	573	589	648	839	783	881	993	998	941	1130	9481	1170	1092	1162	1110	1151	1009	1209	1243	1078	1111	1017	1127	13,479	2,898	30,910
				1679			2076			2657			3069				3424			3270			3530			3255						

Chart No 4

APPENDIX I

15 March 1943

From: Chief of Naval Affairs Bureau, Navy Ministry

To: Chief of Military Preparations Bureau, Navy Ministry
Chief of Personnel Bureau, Navy Ministry
Chief of Education Bureau, Navy Ministry
Chief of Stores Bureau, Navy Ministry
Chief of Bureau of Supplies and Accounts, Navy Ministry
Chief of Medical Bureau, Navy Ministry
Chief of General Affairs Bureau, Naval Technical Department
Chief of General Affairs Bureau, Naval Aeronautical Department
Chief of General Affairs Bureau, Naval Civil Engineering Department

Subject: Inquiry on the Formulation of the Second Period Execution Plan for the Acceleration of War Preparations

As it has been decided that the predetermined armament program, the Revised Fifth Plan and the subsequent decisions on the request of the Navy General Staff will be handled collectively, according to the following acceleration policy, you are requested to submit your draft for the execution of such a plan by the end of March.

The First Period Execution Program of the war preparations acceleration policies mentioned in Navy Secretariat Document No 10490 of 1941, will be revised to include only the program to be executed by the end of March 1943.

The programs for the 1943 and 1944 fiscal years will be accelerated as the Second Period Execution Plan.

The Third Period Execution Plan is to be tentatively for the period from April 1945 to March 1948, but new definite plans, with the

previous plan as a reference, will be established to cope with the situation in the future.

The allocation of material is anticipated to be:

1. Steel

Name of Department and Bureau	Fiscal Year 1943
Naval Aeronautical Department	170,000 tons
Naval Technical Department	450,000 tons
Stores Bureau	111,000 tons
Naval Civil Engineering Department	170,000 tons
Military Preparations Bureau	15,000 tons

(Including allocations for each bureau)

2. Aluminum Allocation for Naval Aeronautical Department 65,000 tons (on the assumption that the allocation is equal to that of the Army).

The items to be noted by each department and bureau in drawing up the plan are as follows:

1. Naval Aeronautical Department

a. The execution plan will be formulated provisionally on the basis of amount of materials expected to be acquired readily. As for expansion and replenishment of the supplementary strength requested by the Navy General Staff Secret Document No 80, every possible measure will be taken hereafter for its fulfillment and, at the same time, further developments will be included in the above program with highest priority.

b. The training plan for flight personnel and the increase in personnel will be completed well before the equipment is prepared.

2. Navy Technical Department

a. The construction of the 42 escort destroyers (type D) requested by the Navy General Staff Secret Document No 37 will be accelerated to the utmost corresponding to the construction of anti-submarine defense ships.

b. The production of arms and equipment for antiaircraft and defense operations will be increased by 30 percent as compared to the quantity decided by the policy of the Naval War Preparation Research Committee.

c. Engine manufacturing will be increased so that there will be sufficient engines for both new and damaged ships.

3. Stores Bureau

a. The construction of Kagoshima, Niitaka, and Sakhalin Fuel Depots may be delayed depending on the supply of materials, but a tentative plan will be established to secure as much aviation gasoline as possible.

b. Further economy of materials for each naval installation will be studied.

4. Naval Civil Engineering Department

a. The simplification of installations will be further investigated with a view toward economizing on materials and shortening the length of time required for the work.

b. Special importance will be attached to defense installations of air bases and operational areas and plans will be made so as to accelerate their construction.

c. The number of construction units to be organized in 1943 will be temporarily fixed at eight B units and one C unit. The number for 1944 will be decided later.

5. Personnel Bureau

In regard to the yearly reserves to be created, the organization of six special naval landing forces and six antiaircraft defense battalions was tentatively decided and their equipment will be provided accordingly.

6. Education Bureau

a. The training of 121,000 men in active service and 25,000 men in the first conscript reserve will be conducted in naval barracks or technical schools.

b. The training of men in the second conscript reserve and militia will be, as a rule, conducted by assigning them to units in the Homeland and overseas, except those to be assigned to special duties.

Note: Considerable changes to this plan may be necessary, depending on the supply of materials and change in the war situation.

(Duplicate copy will be sent to: Chief of 2d Bureau, Navy General Staff)

APPENDIX II

Navy General Staff Top Secret Document No 142, dated 22 April 1943

From: Vice-Chief of Navy General Staff

To: Navy Vice-Minister

Subject: Proposal on wartime construction replenishment program and land defense strength reinforcement program for the fiscal year 1943.

Since the expansion of surface supply operations and reinforcement of submarines, antisubmarine vessels and land defense strength are considered absolutely necessary for the prosecution of the war, it is requested that these matters be given high priority in accordance with the following appended plan.

The details of the proposal will be discussed by the competent authorities.

Appended Plan

Wartime Ship Construction Replenishment Program and Land Defense Reinforcement Program for the Fiscal Year 1943

I. Ship Construction Replenishment Plan

The plan will be started in the fiscal year 1943 and generally completed by the end of the fiscal year 1945.

Ships to be constructed and principal items pertaining thereto are shown on Chart 1.

In carrying out this plan, the following points will be taken into consideration:

1. Cancellation of the projected construction of two B-class (new-type) cruisers.

2. Cancellation of the projected construction of three submarine tenders, and activation of the submarine base units.

3. Postponement or cancellation of the construction of four flying boat tenders.

4. Postponement or cancellation of the construction of some aircraft carriers.

II. Reinforcement of Land Defense Strength

A. Inner Combat Force

1. Antiaircraft Defense Strength

Antiaircraft defenses will be increased as rapidly as possible and generally completed by the end of the fiscal year 1945. The strength necessary for its maintenance and operation will be replenished thereafter. The selection of sites for fortification and other details will be discussed further (the increase in strength after the fiscal year 1943 in the previous deliberations will be included herein).

a. Antiaircraft Gun Batteries

Four hundred batteries, each equipped with six 12.7-cm (or 12-cm) antiaircraft guns and two searchlights. Approximately half will be mobile.

Ships Planned to be Constructed under Navy General Staff Secret Document No 142

Type of Warship	Number of Ships	Standard Displacement Tonnage	Speed	Cruising Range	Other Items
High Speed Transport	32	Approximately 1,250 tons	Approximately 23 knots	18 knots approx 3,500 nautical miles	1. 12-cm or 12.7-cm dual purpose guns ..... 2 2. 25-mm triple mounted machine guns ..... 3 turrets 3. Depth charge ..... 36 4. Echo ranging equipment ..... 1 Hydrophone ..... 1 5. Cargo capacity ..... about 200 tons 6. Landing barge ..... 2 Cutter, Rubber float ..... quantity as required 7. Careful consideration will be given to facilitate the rapid loading and unloading of cargoes.
Transport Submarine	19	About 1,400 tons	Surface: More than 12 knots Underwater: About 6 knots	Surface: 10 knots 6,000 nautical miles Underwater: 3 knots 60 nautical miles	Besides those mentioned in the left columns and below, the characteristics of submarine (Class D) will be applied to this transport. 1. Gunnery equipment: One 25-mm triple mounted machine gun on the bridge. 2. Torpedo equipment ..... None 3. Capacity of supply and transportation will be increased to a maximum. 4. Number of continuous cruising days ..... 30 days
Motor Torpedo Boat (A)	100	About 50 tons			Type of No 10 Motor Torpedo Boat
Motor Torpedo Boat (B)	380	About 20 tons			Type of No 1 Motor Torpedo Boat
Escort	330	About 500 tons	About 16 knots	14 knots about 5,000 nautical miles	1. Besides the items in the columns to the left, the escort vessels will be of the ship No 320 type, but the main armament consists of two main guns. 2. As the speed of merchant ships increases, some of the escort vessels will be of the ship No 320 type.
Auxiliary Patrol Boat (A)	90	About 200 tons	About 10 knots	About 8 knots, About 4,000 nautical miles	1. Steel hull and substitutes to picket boats now assigned to the Fifth Fleet 2. For details refer to Inquiry of Naval General Staff, 2d Bureau Secret Document No 115.

Chart No 1

Type of Warship	Number of Ships	Standard Displacement Tonnage	Speed	Cruising Range	Other Items
Auxiliary Patrol Boat (B)	300	About 200 tons	About 10 knots	8 knots About 3,000 nautical miles	1. Generally the same as auxiliary patrol boat (A), but wooden hull. 2. Some will be of the No 1 auxiliary subchaser type.
Submarine (Medium)	50	(1) RO-35 and S-54 types will be adopted. After a study is made, a type of German submarine (without some of the weapons and fittings) may be adopted. (2) Construction of Submarines A, B and C class and special type submarines will be cancelled after the fiscal year 1944 and submarines of this type will be constructed.			

b. Machine Gun Batteries

Eighty batteries, each equipped with 24 25-cm machine guns or large.

c. Antiaircraft Defense (machine gun) Units

One hundred and twenty antiaircraft defense units, each equipped with 24 25-cm machine guns or larger.

2. Surface Defense Strength

As a temporary measure, defense stations proposed by Navy General Staff Top Secret Document No 107 will be established as quickly as possible.

B. Outer Combat Force

Unit	Number of Units to be Newly Activated Each Fiscal Year			Remarks
	1943	1944	1945	
Antiaircraft Defense Battalion	20	50	50	One battalion is composed of three antiaircraft gun companies (each with six guns), two machine gun companies (each with 24 guns) and one observation company (equipped with three radars and necessary equipment for lookout and communications)
Defense Unit	5	5	5	One unit is composed of two defense station units, one special minesweeper division and necessary defense base personnel
Special Naval Landing Force	Force to be maintained at a level whereby there would always be 5 reserve units			Includes No 1001 and No 1002 units (Paratroopers) and special submarine-borne landing forces (with amphibious tanks)
Communications Unit	2	2	1	
Weather Unit	1	1	1	
Survey Unit	1	1	1	
Submarine Base Unit	1	1	1	
Construction Unit	20	20	30	Each unit will have an organization adequate to construct defense facilities as well as air bases. The materials necessary for these units must First be provided and the personnel necessary for their operation each year will be ensured
Note: The details of organization and equipment of antiaircraft defense battalions and defense units will be discussed further.				

APPENDIX III

3 June 1943

To: Vice-Chief, Navy General Staff

From: Vice-Minister of Navy

Subject: Reply concerning the wartime construction and replacement of naval vessels and the strengthening of the ground defenses in the 1943 fiscal year.

Regarding the establishment of the strength as proposed by the Navy General Staff Top Secret Document No 142, although the realization of the plan under the present circumstances is deemed extremely difficult, it should be possible to establish about half the requested strength if an urgent procurement demand for materials, personnel and other items can be fulfilled. The work will start immediately according to the supplementary program as per the annex and every effort will be made to accelerate its execution.

However, due to the change in the allotment of materials, with the increase in production of aircraft and according to the production situation and collection of materials after 1944, a drastic revision of the program is highly probable.

As to your request for the establishment of strength other than the execution plan as per the annex, under the present circumstances this must be postponed until after 1946, although further study and consultations will be made.

- - - - - - - - - - - - - - -

ANNEX

Execution plan for wartime construction and replacement of naval vessels and strengthening of the ground defense strength in the 1943 fiscal year

1. Construction of Naval Vessels

a. Order of priority: escort vessels; motor torpedo boats and submarines; and patrol boats and transports.

b. Recommended Construction

Type of Ships		Fiscal Year 1943	1944	1945	Total	Requested Strength	Remarks
Escort		24	100	120	224	330	The speed is expected to be reduced to about 16 knots.
Motor torpedo boat	A	0	8	20	28	100	The shortage of Type A will be replenished by Type B
	B	150	240	62	452	380	
Submarine (Medium)		0	0	13	13	50	
Patrol boat	A	0	0	Undecided	Undecided	90	Studies will be made to construct A to the utmost in conjunction with the construction of miscellaneous auxiliaries.
	B	About 60	120	120	300	300	
High speed naval transport		0	4	6	10	32	D-type destroyers will be converted
Submarine transport		0	1	6	7	19	

c. Postponement of construction of naval vessels according to preconceived plan.

The construction of the following naval vessels will be suspended, or the laying of the keel postponed, mainly for the purpose of diverting materials.

(1) Four aircraft carriers

Ship No 5014 (keel laying scheduled for October 1944)) Construction suspended
Ship No 5022 (same as above))

Ship No 5008 (Keel laying scheduled for September 1943)) Keel laying postponed about six
Ship No 5009 (same as above)) months

(2) Two B type cruisers

Ship No 5037 (Keel laying scheduled for August 1945)

Ship No 5038 (Since the keel laying is scheduled for August, 1946, the decision will be made later, following conferences)

(3) Three submarine tenders

Ship No 5034 (Keel laying scheduled for December, 1945)

Ship No 5035) Since the keel laying is scheduled for after September, 1946, the
Ship No 5036) decision will be made later.

(4) Four flying boat tenders

Ship No 303 (Keel laying scheduled for October 1944)

Ship No 5031 (Keel laying scheduled for October, 1945)

Ship No 5032) Since the keel laying is scheduled
) for after July, 1946, it will be
Ship No 5033) decided later.

(5) Oil tanker

Ship No 307 (Keel laying scheduled for August, 1944)

Ship No 5389 (Keel laying scheduled for August, 1944)

2. Ground Air Defense Strength

a. Inner Combat Force

Chiefly from the viewpoint of air defense weapons, the realization of this plan is deemed difficult, but a plan will be made later in accordance with the measures to increase production of firearms.

b. Outer Combat Force

In view of the number of qualified personnel and amount of material available, for the time being, about half the requested quantities with respect to the AA defense units and construction units will be fulfilled. However, as soon as the goal for ordnance and personnel is fixed, reinforcements will be decided after further discussion.

Required Operational Air Strength in Early 1945 Fiscal Year

	Area Force	Carrier Force	Ship-borne Plane	Mobile Base Air Force	Training Force	Inner Combat Force	Operational Total	Production Total	Remarks
Carrier fighter		381			72		453	900	
A-fighter	864			1296	96	48	2304	3800	
B-fighter	864			1296	96	324	2580	4250	
C-fighter	432			648	48	72	1200	1700	
Carrier bomber (carrier attack plane)	480	472		864	72	108	1996	3200	
Land bomber	480			864	48	36	1428	2100	
Land attack plane	384			864	96	36	1380	1500	
Land (carrier) reconnaissance plane	120	28		648	12		808	1000	About one-third of land reconnaissance planes of mobile base air force will be substituted by land bomber.
Seaplane fighter					48		48	110	
Reconnaissance seaplane	257		185		24	128	594	800	
Patrol plane	288					160	448	500	
Submarine attack plane	20						20	100	
Submarine reconnaissance plane	36						36	50	
Flying boat	64					8	72	90	
Transport plane	90			825	14	104	1033	900	
Total	4379	881	185	7305	626	1024	14400	21000	

Remarks

1. In addition to the above, about 9,000 planes must be produced for the training of flight personnel; therefore, besides the program for the training of 25,000 flight personnel for this fiscal year, every effort will be made to train an additional 10,000 men.

2. As soon as there are prospects for surplus materials and margin in production capacity, production will be increased.

Chart No 1

Required Operational Air Strength in Early 1944

	Area Force	Carrier Force	Ship borne Plane	Mobile Base Air Force	Training Force	Inner Combat Force	Operational Total	Production Total	Remarks
Carrier fighter		213			48		261	502	
A-fighter	588			288	72	36	984	1902	To engage chiefly in destroying enemy fighter planes by mean of dog fights.
B-fighter	516			288	72	108	984	1336	To engage chiefly in destroying enemy heavy bombers, with emphasis on speed and firepower.
C-fighter	120			72	24	36	252	352	To engage chiefly in night action using Type 2 land reconnaissance planes with fixed diagonal machine guns for the time being.
Carrier bomber	480	117	48	96	120	36	897	1478	
Land bomber				96		24	120	170	
Carrier attack plane	156	185			48	36	425	743	
Land attack plane	288			96	72	24	480	736	
Land (carrier) reconnaissance plane	108	10		72	12		202	270	Type 100 headquarters reconnaissance planes Type 2 carrier reconnaissance planes.
Seaplane fighter	24				12	12	48	103	
Reconnaissance seaplane	192		143		16	128	479	835	The majority of the planes other than ship-borne are for antisubmarine patrol.
Patrol plane	(50) 74					(150) 270	(200) 344	(200) 390	Substituted carrier attack plane figures in parenthese indicate intermediate trainer plane.
Submarine reconnaissance plane			22				22	44	
Flying boat	48					8	56	72	
Transport plane	50			135	9	101	295	205	
Total	2644	525	213	1143	505	819	5849	9138	

Remarks

1. In addition to the above, the production of about 2,500 planes is required for the training of flight personnel.
2. In addition to the flight personnel training program for 5,400 men, every effort will be made to increase this number as much as possible and the planes required therefor will be secured.
3. In case prescribed number of carrier bombers and land reconnaissance planes is not attained, fighter planes will be substituted.
4. The number of planes shown in the "Production total" column is the number required to be produced in order to keep in the air. The number shown in the "operational total" column.
5. Ship-borne planes refers to those planes carried on such ships as battleships in contrast to the normal carrier force.

APPENDIX IV

Material for the Ninth Meeting of the Naval War Preparations Research Committee of Imperial General Headquarters

War Preparations Policy to Cope with the Third Phase Operations

The Army and Navy Ministries and General Staffs will make every effort to carry out the decisions of the Liaison Conference of the Imperial General Headquarters and Government of the formation of the 1944 National Mobilization Program and rush at top speed war preparations to cope with pressing war needs.

The principal aim of the war preparations is to establish an invincible war preparations plan by concentrating all efforts on completing the necessary plans during the fiscal years 1943 and 1944. At the same time, effective suicide attack tactics will be perfected.

In accordance with the above policies, the following measures will be taken:

1. Highest priority will be given to the establishment of land-based air strength as shown in Chart 1.

2. In principle, aviation fuel is to be secured to the limit of the resources and, for the present, the 1945 goal will be 1,800,000 kilolitres.

3. The construction and maintenance of naval vessels will be in accordance with the following policy:

a. As a rule, repairs to damaged ships will be given a higher priority than the construction of new ships.

b. The construction of ships will be performed as follows:

(1) Construction will be in accordance with the table prepared by the 1st Section, General Affairs Bureau, Navy Technical Department on 25 July 1943. The ships scheduled to be completed by the end of the 1944 fiscal year will be constructed according to the said table. As for destroyers (D-type), more than 10 ships, in addition to the above, will be completed by the end of the 1944 fiscal year by speeding up construction.

(2) The ships necessary for the organization of an amphibious group, mobility of the land based air force, transportation of the construction unit, continuous supply of the front line and for local defense will conform to Chart 2.

(3) As for construction of submarines, additions and changes are expected according to the results of research on mass production systems and new types of ships.

(4) The construction of ships according to the table prepared by the 1st Section, General Affairs Bureau, Navy Technical Department on 25 July 1943, other than the above, is given second priority from the viewpoint of general war preparations. The construction of ships Nos 5009 to 5015 and 5021 will be temporarily suspended. Also, preparatory works, except those deemed absolutely

necessary, will be discontinued before the final decision on these ships will be made by the end of the fiscal year 1943.

(5) Ship No 300 will be completed by the end of the fiscal year 1944 as an aircraft carrier.

4. The ground defense strength will be established in close conformity with Chart 3.

5. The preparations of personnel will be conducted speedily, before that of materials, in order to prevent disruption of operations of the various items mentioned in the preceding paragraphs. The first principle for the education and training of personnel is to enable them to cope with the present acute situation.

6. As for production of materials and use of the various installations, the policy of the eighth meeting of the War Preparation Research Committee will be followed. As well as economizing on materials through demonstration of the maximum efficiency of existing installations and utilization of idle installations, special efforts will be made to maintain and improve the fighting strength by increasing construction and repair capacities at the front and by establishing medical facilities on the spot.

7. The research on and realization of new weapons will be hastened to cope with the war situation. Radar and sonar equipment will be completed immediately, as previously arranged.

Ships Necessary for Organization of an Amphibious Group

Type of Craft		Required Number of Vessels to be constructed in Each Fiscal Year		Remarks
		1943	1944	
Landing Craft		10	6	
L C T		28	35	
Special Large Landing Barge		40	60	Applicable to landing craft Type HA
Large Landing Barge	Steel	1,400	2,400	Required number of vessels in 1945 generally corresponds to that of 1944
	Wooden	700	1,200	
Medium and Small Landing Barge		140	240	
Armored Boat		70	60	
PT Boat		600	960	
High Speed Transports		15	15	10 vessels for the tentative program, and additional construction of 20 vessels

Chart No 2

(Continued)

Reference Table
(Main Data of Transport and Amphibious vessels)

Type of Craft	Standard Displacement Tonnage	Speed Knots	Cruising Range (nautical mi.)	Carrying Capacity	Remarks
Landing Craft	About 800 tons	13	2,000 mi. at 13 knots	300 tons (4 med tanks)	Capable of beaching
L C T	About 950 tons	16	3,000 mi. at 16 knots	350 tons (13 med tanks)	"
Special Large Landing Barge	About 16 tons	12	350 mi.	15 tons (1 med tank)	"
Large Landing Barge	About 10 tons	8	300 mi.	10 tons	"
Medium Landing Barge	8 tons	8	250 mi.	10 tons	"
Small Landing Barge	5 tons	7.5	200 mi.	3 tons	"
High Speed Armored Boat	22 tons	35	140 mi.	Zero	With two 20mm machine guns
PT Boat	22 tons	17-25	300 mi.	2 tons (with Special equipment)	
High Speed Transport	1,500 tons	21.5	3,500 mi. at 18 knots	350 tons	Capable of rapid loading and unloading with two 12cm antiaircraft guns, nine 25mm machine guns

Chart No 2

Increase of Ground Defense Strength

1. Inner Combat Force

a. Antiaircraft Strength

The following strength will be attained by the end of the 1945 fiscal year and thereafter the necessary strength to maintain and operate it will be provided.

(1) Antiaircraft Gun Batteries

400 batteries

One battery will be provided with six 12.7-cm (or 12-cm) dual purpose guns and two searchlights as its nucleus. About one-half of the battery will be mobile.

(2) Machine Gun Batteries

Eighty batteries with 24 large (25-mm and over) machine guns as its nucleus.

(3) Antiaircraft (machine gun) Defense Unit

120 antiaircraft defense units with 24 large (25-mm and over) machine guns as its nucleus.

(4) Surface Defense Force

The preparations of defense stations in accordance with Navy General Staff Top Secret Document No 107 will be expedited to the utmost for the present.

Chart No 3

2. Outer Combat Force

Unit		Annual Requested Increase in Strength in Each Fiscal Year			Remarks
		1943	1944	1945	
Antiaircraft Defense Unit	A	60	150	150	Unit A is composed of six dual purpose guns. Unit B is composed of twenty-four 25-mm machine guns
	B	40	100	100	
Garrison Unit (Defense Unit)		10	5	5	Composed of about two companies of a land combat unit, about 100 men of the sea defense unit, 20 large landing barges, three A underwater defense stations, two B underwater defense stations and base clerical staff
Special Naval Landing Force		Four reserve forces to be maintained at all times			Includes Nos 1001 and 1002 units and special submarine landing forces attached thereto
Communications Unit		2	2	1	
Weather Unit		1	1	1	
Survey Unit		1	1	1	
Submarine Base Unit		1	1	1	
Surface Transport Unit		4	6	6	Forty large landing barges and four armored boats as the nucleus.
Construction Unit		50	100	100	Necessary materials according to the number of units will be provided and the necessary members for the operating of the construction units will be secured
Coastal Battery		80	60	40	Figures indicate the necessary number of 8-cm -20cm guns. Gun barrels on hand and removed from vessels will as a rule, be appropriated. (Necessary gun-carriages will be hastily constructed.)
Type 2 (3) Special Amphibious Tank		240	480	480	The figure shows the number of tanks. Necessary personnel will be assigned