

4 SEP 10 1959
Copy 1958

Japanese Monograph No. 169



GOVERNMENT PUBLICATION READING ROOM

**OUTLINE OF NAVAL ARMAMENT AND
PREPARATIONS FOR WAR**

Part IV



**PREPARED BY
MILITARY HISTORY SECTION
HEADQUARTERS, ARMY FORCES FAR EAST**

**DISTRIBUTED BY
OFFICE OF THE CHIEF OF MILITARY HISTORY
DEPARTMENT OF THE ARMY**

FOREWORD

This is the fourth 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 V | 172 |
| Outline of Naval Armament and Preparations for War, Part VI | 174 |

26 July 1952

PREFACE

Through Instructions No. 126 to the Japanese Government, 12 October 1945, subject: Institution for War Records Investigation, steps 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, General 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 |
|--------------------|--|------|
| Chapter I | Situation from Outbreak of War to Revised Fifth Naval Armament Replenishment Plan | 1 |
| | General Situation | 1 |
| | Air Armament | 1 |
| | Combat Air Groups | 2 |
| | Training Air Groups | 3 |
| | Transport Planes | 4 |
| | Shipborne Planes | 5 |
| | Air Personnel | 5 |
| | Emergency War Production Expediting Department | 5 |
| | Battleship Construction Stipulated in Fourth Plan | 7 |
| | Increase of Aircraft Carriers | 13 |
| Chapter II | Revision of Fifth Naval Armament Replenishment Plan (Revised Fifth Plan) | 19 |
| | Progress of Revised Fifth Plan | 20 |
| | Ship Strength | 20 |
| | Air Strength | 30 |
| | Supplementary Adjustments to Revised Fifth Plan | 41 |
| | Supplementary Ship Construction Plan to Revised Fifth Plan | 42 |
| Appendix I | Naval General Staff Secret No 191 | 49 |
| Appendix II | Official Reply from the Ministry of Navy: Secretariat Secret Document No 9599-2 | 51 |

Charts

| | | Page |
|-------------|--|------|
| Chart No 1 | Rearrangement of Titles of Plans | 9 |
| Chart No 2 | Status of Plans | 10 |
| Chart No 3 | Program for Expediting War Preparations | 11 |
| Chart No 4 | Plan for Increasing Aircraft Carriers | 15 |
| Chart No 5 | Shipbuilding Plan | 21 |
| Chart No 6 | Approved Extraordinary Military Appropriations for Fiscal Year 1943 | 25 |
| Chart No 7 | Status of Naval Vessels in the Scheduled Shipbuilding Plan End of June 1942 | 29 |
| Chart No 8 | Detailed Status of Shipbuilding Plan End of June 1942 | 31 |
| Chart No 9 | Results of Ship Construction Under the Revised Fifth Plan | 35 |
| Chart No 10 | The Air Strength Increase Plan for Fiscal Year 1942 (Combat air group) (Shipborne air strength) (Training air group) | 37 |
| Chart No 11 | Ships to be Completed End of Fiscal Year 1944 | 45 |
| Chart No 12 | Ships to be Completed End of Fiscal Year 1945 | 46 |
| Chart No 13 | Approved Budget and Actual Results Achieved 1944 | 47 |

CHAPTER I

Situation from Outbreak of War to Revised Fifth Naval

Armament Replenishment Plan

General Situation

The smooth progress of operations in the initial phase of the Pacific War led those in charge of the departments for war production to believe that the policy pertaining to such production was adequate. Later this was proven wrong and it became necessary to revise and strengthen methods of maintaining and stockpiling munition supplies. During this period, despite the fact that the Air Force played a vital part in the naval action off the Malayan coast, little attention was given to implementation of air armament or to the building up of the air force. The optimistic attitude of the time also led to delay in general national mobilization, especially student mobilization for flight personnel.

As the lack of merchant shipping during the past few years had been held due to the expansion of naval armament, it was felt that in order to achieve the most effective results, the control of all shipbuilding should be under one head -- the Navy Ministry. This was done soon after the outbreak of war.

Air Armament

In early February 1942, as it appeared that the Fourth Naval

Armament Replenishment Plan would be completed on time and the Fifth Naval Armament Replenishment Plan was moving forward smoothly, it was decided to regard the two plans as one from the beginning of the 1942 fiscal year.

The combat air groups, totalling 132 groups, were to be completed in five years according to previous plans and reorganization of air units was to be effected. Wartime strength was to be twice the planned peacetime strength.

A plan for training 156 air groups was to be completed in five years and the reorganization of the air units accomplished. Also, a total of 457 transport planes were to be prepared and maintained.

Combat Air Groups

The strength of combat air groups was to be more than double that of the Fourth Naval Armament Replenishment Plan and the plane complement aimed at approximately triple that of the Fourth Plan. An over-all change of air unit organization was to be made.

The reorganization of the Fourth Plan called for 65 groups with 1,032 aircraft as a normal complement and a reserve of 344, totalling 1,376 planes.

Reinforcements were to be 67 groups with 990 aircraft as a normal complement and a reserve of 330, totalling 1,320 planes.

The strength at the completion of the Fifth Plan would, therefore, be 132 groups with 2,022 aircraft as a normal complement and 674 as a reserve, totalling 2,696 aircraft. These air-

craft were to comprise:

| Type of Aircraft | Number of Group | Number of Aircraft |
|---------------------------|-----------------|--------------------|
| Fighter | 22 | 528 |
| Fighter and bomber | 13 | 312 |
| Land reconnaissance plane | 2 | 48 |
| Medium land attack plane | 15 | 360 |
| Large land attack plane | 10 | 240 |
| Seaplane fighter | 12 | 288 |
| Seaplane bomber | 9 | 144 |
| Medium flying boat | 12 | 144 |
| Large flying boat | 12 | 144 |
| Patrol plane | 8 | 128 |
| Carrier fighter | 3.5 | 84 |
| Carrier attack plane | 5.5 | 132 |
| Reconnaissance seaplane | 6 | 96 |
| Large transport plane | 2 | 48 |
| Total | 132 | 2,696 |

Training Air Groups

It was decided that the strength of the training air groups would be approximately two and a half times that stipulated in the Fourth Plan.

Up to the Fourth Plan 63 groups were completed with 894 aircraft as a normal complement and 639 as a reserve, totalling 1,533.

Reinforcements were to be 93 groups, comprising 1,270 aircraft as a normal complement and 848 as a reserve, totalling 2,118.

The total number of training air groups was to be 156, with 2,184 as a normal complement and 1,487 as a reserve, totalling 3,671 aircraft. This was to include 37 combat aircraft units to be reorganized.

The strength at the time of the completion of the Fifth Plan was to be:

| Type of Aircraft | Number of Group | Number of Aircraft |
|---------------------------|-----------------|--------------------|
| Land training planes | 30 | 720 |
| Training seaplanes | 16.5 | 396 |
| Utility trainers | 26.5 | 636 |
| Small land combat planes | 45.5 | 1,229 |
| Medium land combat planes | 10.5 | 252 |
| Small combat seaplanes | 19 | 342 |
| Medium combat seaplanes | 8 | 96 |
| Grand total | 156 | 3,671 |

Transport Planes

In consideration of the lessons learned from the China Incident and with the increase in land-based air strength, the necessity for a tremendous increase in the number of transport planes was recognized. A plan was formulated to prepare and maintain 457 aircraft by the end of 1946, comprising the following:

| | |
|---------------------|------------|
| Large land aircraft | 176 |
| Large seaplanes | 114 |
| Small aircraft | <u>167</u> |
| Total | 457 |

Shipborne Planes

A gradual increase in shipborne planes to 1,584, in accordance with the completion of vessels, was planned.

Air Personnel

The plan called for 31,578 pilots — 10% officers, 40% special and warrant officers and 50% non-commissioned officers. Ordnance maintenance personnel was to total 10,013, including 250 officers, and aircraft maintenance personnel 35,078, including 1,335 officers.

Emergency War Production Expediting Department

Hitherto, the supervision of war production had been actually the responsibility of the section chiefs and their subordinate officers, but with the imminence of war it was felt that the chiefs of the bureaus and departments should, themselves, assume responsibility for the stepping up of production of vital war materials. The War Preparations Examination Department had been established for this purpose but it was a committee-type organization which drew up plans rather than executed them. Consequently, the Emergency War Production Expediting Department was established in November 1941 to supervise the execution of these plans. Headed by the Vice Minister of the Navy, its members comprised the chief of each bureau of the Navy Ministry, and of such departments as the Technical, Aeronautical and Civil Engineering, as well as the First (Operation) and Second (War Preparation) Bureau of the Naval General Staff. The Chief of the First Section of the Naval Affairs

Bureau was appointed secretary of the department.

Meetings were held weekly and extraordinary meetings were called whenever the occasion demanded. Reports were submitted on the actual progress of war production and explanations given of future plans.

The Emergency War Production Expediting Department functioned efficiently for the entire duration of the war as a center of war production activities.

The Emergency War Production Expediting Department first drew up a plan for expediting war production. This covered a period to March 1944, and every means available was used to complete the required armament and other war materiel requirements by that time.

During the second period - from April 1944 onward - special study was made on the execution of plans for the anticipated Revised Fifth Plan and various supplementary amendments were completed and successively decided and enforced.

With the decision to execute plans for expediting war preparations during the first and second period, the relationship with the various past armament and war production plans became extremely complicated and it was feared that confusion would be created in the various enforcing headquarters concerning the titles of these plans. In order, therefore, to rearrange and standardize these titles, the Chief of the Naval Affairs Bureau issued the following notification soon after the outbreak of the war:

2 February 1942

From: Chief of the Naval Affairs Bureau, Navy Ministry
To : Chiefs of All Bureaus Concerned in Navy Ministry
Chief of Naval Technical Department
Chief of Naval Aeronautical Department
Chief of Naval Civil Engineering Department
Chief of the 1st and 2d Bureau of the Naval General Staff
Chiefs of Staff of All Naval Districts
Chiefs of Staff of All Guard Districts

Notification Regarding Rearrangement of the Title of the Execution Plans for Expediting War Preparations.

An order has been issued to start the first period execution plan for expediting war preparations. As to the second period execution plan, it has also been decided that all quarters concerned should pursue its study. In recognition of the fact that the relationship of these plans with the existing plans for war preparations have become fairly complicated, we beg to inform you that it has been decided the titles of all plans are to be rearranged and standardized henceforth as shown in the attached table (See Charts 1, 2 and 3).

Battleship Construction Stipulated in
Fourth Plan

The following program for the construction of two battleships specified in the Fourth Plan was approved by the Navy Minister on 1 April 1939.

| Temporary Name | Place of Construction | To be Started | To be Completed |
|--------------------------------|-----------------------|------------------------|-------------------------|
| No. 110 Warship Yamato-type | Yokosuka Navy Yard | Early April of 1940 | Late March of 1945 |
| No. 111 Warship Yamato-type | Kure Navy Yard | Early May 1941 | Late October of 1945 |

The construction of No. 110 warship was initiated on 4 April 1940 as scheduled, and No. 111 warship on 7 November 1940, six months earlier than scheduled. The construction work on No. 110 was started with great enthusiasm as the project was the first of its kind in Yokosuka Navy Yard since the completion of the battleship Mutsu in 1921. In late 1940, soon after the keel had been laid, the work was delayed for approximately three months because of the design which called for reinforcement of the double bottoms under the engine compartments. Early in 1941 the progress of construction of these battleships was slowed down and finally ceased. The main reasons for this were the necessity to prepare existing large ships for battle, insufficient production of armor plates, and arguments on the advisability of continuing construction on battleships whose vulnerability was revealed by the battle lessons in the initial phase of the war. However, since considerable progress had already been made on the framework of No. 110 at Yokosuka Navy Yard, and its dismantlement would have been very difficult, it was decided to continue construction on this ship. Both navy yards, however, were confronted with the difficult task of meeting urgent war requirements and were unable to continue construction work on the battleships. After the Battle of Midway it was decided to convert No. 110 warship into an aircraft carrier.

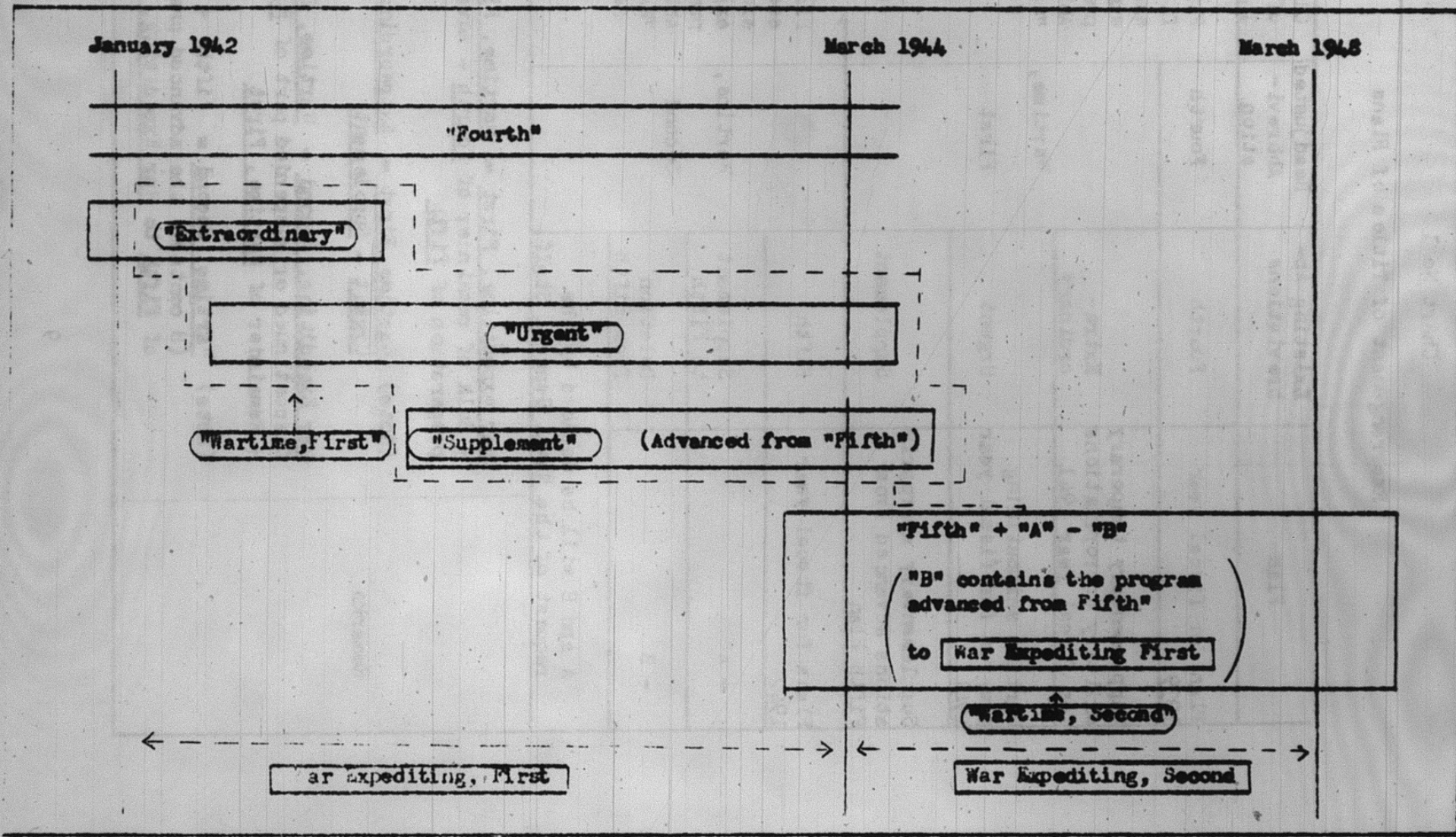
As construction of No. 111 warship at the Kure Navy Yard had been started six months later than No. 110 warship, work had not progressed so far and it was considered possible to dismantle it.

Chart No 1

Rearrangement of Titles of Plans

| Plan | Existing Abbreviations | Readjusted Abbreviation | Classification of War Expediting Execution |
|--|---|-------------------------|---|
| Plan for fiscal year 1939 | Fourth | Fourth | Plan for the first period execution of expediting war preparations. Abbreviated as "War Expediting, First". (March 1944) |
| Supplementary temporary military appropriations for fiscal year 1941 | Extraordinary | Wartime, First | |
| Wartime shipbuilding program for fiscal year 1941 | Urgent | | |
| Supplementary appropriations advanced from Fifth Plan | Supplement | | |
| Plans for fiscal year 1942 | Fifth | Wartime, Second | Plan for the second period execution of expediting war preparations. Abbreviated as "War Expediting, Second". |
| + A | Supplement to Fifth | | |
| - B | Deletion from Fifth | | |
| A and B will be decided by the request of the Naval General Staff. | | | |
| Remarks | <p> <u>War Expediting, First</u> = <u>Wartime, First</u> + Bulk of remainder of <u>Fourth</u> + advanced preparation of <u>Fifth</u> </p> <p> (Note) <u>Wartime, First</u> = <u>Extraordinary</u> + <u>Urgent</u> + <u>Supplement</u> </p> <p> <u>War Expediting, Second</u> = <u>Wartime, Second</u> + Discontinued or suspended part of <u>Fourth</u> + Remainder of <u>Wartime, First</u> </p> <p> (Note) <u>Wartime, Second</u> = <u>Fifth</u> + A - B (B contains the advanced preparation of <u>Fifth</u> to <u>War Expediting, First</u>) </p> | | |

Chart No 2
 Status of Plans



10

Program for Expediting War Preparations

| | Outline of Strength | | Program of Execution | |
|--|--|---|----------------------|--|
| | Surface Craft | Aircraft | | |
| Program for the fiscal year 1939 (Fourth) | Not completed: BBx2, CVx1, CBx5, C("HEI")x2 DD("OTSU")x6, SS"KO"x1, SS"OTSU"x13, SS(Naval Large)x10 AMx4, CBx8, FCx4, ANx1, AKx1, Trainingx1 (With the total appropriations of "Fourth" Plan for 300,000 tons at the cost of 1200 million yen five year program. | Training Units 40.5 Combat Units 34.5 75 Units to be increased. (Approximately 300 million yen; five year program) | | <p>Wartime First</p> <p>Extraordinary</p> <p>Urgent</p> <p>Supplement</p> <p>Fourth</p> <p>Wartime, Second</p> <p>Fifth + A - B</p> <p>Wartime, Second</p> <p>March 1944</p> <p>March 1948</p> |
| Supplementary temporary military appropriations for the fiscal year 1941 (Extraordinary) | Replenishment of defects in armament program in accordance with changes of the situation. SS Mediumx9, SS Smallx9, FCx12, AQx6, Refrigeratorx3, Tug (Minelayer Type)x4, Tug(Minesweeper)x6, PTx6. (Approximately 200 million yen). | Establishment of seven training air groups (consisting of 17 units) advanced from the air training unit establishment program of the Fifth Plan. (Approximately 100 million yen) | | |
| Wartime Shipbuilding program for the fiscal year 1941 (Urgent) | Shipbuilding based on the program of preparations for expedition (Figures in parentheses denote the wartime program based on the "Outline of the Program of Preparations for Expedition for the Fiscal Year 1940) Cx2(2), CVx1(2), DD"KO"x16(5), DD"OTSU"x19(0) SS"OTSU"x6(0), SS"HEI"x6(0), SS Mediumx12(0), SS Smallx9(12), Flying Boat tenderx1, PFX30(0), CBx14(3), AMx28(17), AMx16, FCx20(28), FCx100(168), AKx1(0), PTx18(0). (Approximately 300,000 tons; to be completed within two years with an expenditure of 1,700 million yen) | One year advancement of Fourth Plan and Maintenance of necessary bases in the South Seas Area. | | |
| | A portion of which is Supplement, i.e. SSx32 and bombing targetx1 (inclusive of expansion of production as well as educational facilities.) (Approximately 480 million yen for vessels only.) | Advanced execution of a portion of Training Unit and Combat Unit Establishment Program in Fifth Plan (Approximately 450 million yen) | | |
| Program for the fiscal year 1942 (Fifth) | (Nine year program for 650,000 tons at 4,400 million yen) (Fifth - SSx32) + SSx151 is the main strength, but a considerable revised of strength is expected to be proposed by the Naval General Staff. | Training Units 93 Combat Units 67 Total: 160 units to be increased. (Approximately 2,000 million yen of which more than 600 million yen will be advanced to Extraordinary and Supplement. Upon completion the number of units will amount to to { Training 156 Combat 132 } Total 288 units | | |

This was done after the Battle of Midway.

Increase of Aircraft Carriers

The Fifth Plan had a relatively smooth start, but, as a result of the Battle of Midway, an immediate and basic change in the plan became necessary. Four aircraft carriers (the main strength of the naval air forces) had been lost. To cope with this situation, the Naval General Staff immediately initiated a study to change the basic policy of armament and war production having the increase of air strength and the construction of aircraft carriers as its main objectives. The Naval Technical Department drafted a plan for the immediate construction of aircraft carriers which it submitted to the Bureau of Naval Affairs and the Naval General Staff. It was later approved by the Ministry of the Navy. This plan, which was confirmed on 30 June 1942, was known as the Navy Secretariat Secret Document No. 8107.

The plan called for the conversion into aircraft carriers, as soon as possible of the Izumo Maru, Nitta Maru and Taigei Maru which were scheduled for completion during 1942. During 1943, the Argentina Maru, Scharnhorst, 2 seaplane tenders and the Brazil Maru were to be converted into aircraft carriers. A study was ordered on the replacement and use of destroyer engines for the Brazil Maru, however, the ship was sunk in August 1942, before work could be begun on it.

The actual dates of completion were:

| Name of Ship | Scheduled Date of Completion | Actual Date of Completion |
|---------------------------------|------------------------------|---------------------------|
| HIYO (IZUMO Maru) | 31 Jul 42 | 31 Jul 42 |
| CHUYO (NITTA Maru) | End of Nov 42 | 25 Nov 42 |
| RYUHO (Submarine Tender TAIGEI) | End of Oct 42 | 30 Nov 42 |
| KAIYO (ARGENTINA Maru) | End of Jul 43 | 23 Nov 43 |
| SHINYO (SCHARN-HORST) | End of Jul 43 | 15 Dec 43 |
| CHITOSE (Seaplane Tender) | End of Aug 43 | 1 Jan 44 |
| CHIYODA (Seaplane Tender) | End of Dec 43 | 31 Oct 43 |
| BRAZIL Maru | | (Plan was dropped) |

No. 110 warship was to be converted into an aircraft carrier and work to be accelerated so that it would be completed by December 1944.

The construction of fourteen (14) Hiryu-type ships, including the No. 302 warship, and six (6) No. 130 warship-type ships, including the No. 130 warship, was to be accelerated to the utmost degree. (See Chart 4.)

In regard to equipping aircraft carriers, a study was ordered to be made to simplify equipment as much as possible, and any improvements learned from battle lessons were to be applied, as long as they did not delay the period of completion.

Chart No 4

Plan for Increasing Aircraft Carriers

| Type of Ship | Fiscal Year | | | | | | | |
|----------------------|---|------|---------------------------|------|------|------|------|--|
| | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | |
| HIRYU type | | | 3 | 5 | 4 | 2 | | |
| No. 130 warship type | | | 1 | | 1 | 2 | 2 | |
| Converted ships | 3 | 5 | 1 (No. 110 warship) | | | | | |
| Total | 3 | 5 | 5 | 5 | 5 | 4 | 2 | |
| Remarks | <p>A. Those under consideration are not included.</p> <p>B. This plan may be changed in the future.</p> | | | | | | | |

In accordance with the above-mentioned plan ships to be newly built are shown according to their types in the following table:

| Classification | Type or Name of Ships | Number of Ships | Number of ships According to Fifth Plan | Remarks |
|--------------------------------------|--|-----------------|---|---|
| Under the new ship-building plan | No.302 type (HIRYU Type) | 4 | 1 | Six ships were included under the initial plan, but as a result of the decision to convert No.101 warship into an aircraft carrier, two ships allocated to the Yokosuka Navy Yard were cancelled, reducing the total to four ships. |
| | Improved Type (improved type of HIRYU) | 9 | 0 | |
| | Improved Type 130 (improved type of TAIHO) | 5 | 2 | |
| | Total | 18 | 3 | |
| Under the existing shipbuilding plan | No.110 warship (SHINANO) | 1 | | Conversion of a battleship from Fourth Plan |
| | No.130 warship (TAIHO) | 1 | | Fourth Plan |
| | No.302 warship (UNRYU) | 1 | | Urgent Plan |
| | Total | 3 | | |
| Grand Total | | 21 | | |

| Classification | Name of Ship | Scheduled Date of Completion | Actual Date of Completion | Remarks |
|----------------|-------------------------------|------------------------------|---------------------------|---|
| New Warships | SHINANO (No.110 Warship) | End of Dec 44 | 19 Nov 44 | |
| | TAIHO (No.130 Warship) | End of Jan 44 | 7 Mar 44 | |
| | UNRYU (No.302 Warship) | End of Sep 44 | 6 Aug 44 | |
| | AMAGI (No.302 Type) | End of Dec 44 | 10 Aug 44 | |
| | KATSURAGI (No.302 Type) | End of Mar 45 | 15 Oct 44 | |
| | KASAGI (No.302 Type) | End of Jun 45 | (Unfinished 34%) | Launched on 19 October 1944 Work suspension order issued on 1 Aug 1945 |
| | ASO (No.302 Type) | End of Sep 45 | (Unfinished 60%) | Launched on 1 November 1944 Work suspension order issued on 9 November 1944 |
| | IKOMA (Improved Type) | End of Oct 45 | (Unfinished 60%) | Work suspension order issued on 9 November 1944 Disposed of 17 November 1944 |
| | Improved Type, 8 ships | | (Building suspended) | |
| | Improved No.130 Type, 5 ships | | (ditto) | |

A special study was also ordered to be made of the problem of converting commercial ships into aircraft carriers for transporting aircraft. At the same time three ships of the Asama Maru class were to be converted into aircraft carriers, employing destroyer engines.

It was decided that shipbuilding and conversion work, in accordance with this plan, would be undertaken by the Yokosuka and Kure Navy Yards, as well as by the Kawasaki and Mitsubishi-Nagasaki Shipyards and that the manufacture of the required armor plates, elevators, windscreens, cranes etc. would be effected as emergency measures.

Emergency aircraft construction work progressed smoothly until the middle of 1943. After that, however, the sudden increase in urgent repair work on damaged ships, and the scarcity of materials and labor hindered this shipbuilding plan.

CHAPTER II

Revision of Fifth Naval Armament Replenishment Plan (Revised Fifth Plan)

After the Battle of Midway, the Naval General Staff immediately revised the previously decided armament plan and the Fifth Plan.

The main points of the new plan were:

Air strength was to be increased rapidly. The 132 units scheduled in the Fifth Plan were to be increased to 347, an increase of 215, and 100 units above the maximum wartime strength of 232 units authorized by the Fifth Plan.

The number of aircraft carriers was to be increased immediately with the strength based on the Navy Secretariat Secret Document No. 8107.

More than 100 submarines were to be built and such forces as escorts, subchasers and other small anti-submarine ships were to be immediately increased.

The building of battleships and cruisers according to the Fourth Plan and Urgent Plan was to be suspended with the exception of the No. 110 warship which was to be converted into the aircraft carrier Shinano.

Front-line air bases were to be expanded and organized as quickly as possible against probable U. S. attacks.

Details of the plan were set forth in a formal request forwarded by the Chief of the Naval General Staff to the Minister of

the Navy. This request was known as Naval General Staff Secret Document No. 191 dated 30 June 1942. (See Appendix I.)

The official reply from the Ministry of the Navy on 3 August 1942, known as Secretariat Secret Document No. 9599-2 approving the plan and giving details of priorities to be followed is shown in Appendix II.

Progress of Revised Fifth Plan

Ship Strength

The Revised Fifth Plan, incorporating an enormous expansion in aircraft carriers, was an unprecedentedly large scale plan involving 361 ships with total tonnage of 1,156,061 tons. The shipbuilding plan and approved Extraordinary Military Appropriations for the fiscal year 1943 are shown on Charts 5 and 6. Furthermore, the pre-arranged work on naval vessels which the Naval Technical Department had on hand at the start of this plan (the end of June 1942), namely, the number of vessels called for in the earlier plan, which had not yet been completed, amounted to 410, as shown on Chart 7. Although the building of one battleship and two cruisers was cancelled with the implementation of the Revised Fifth Plan, it was decided to complete the work on the building of a total of approximately 780 craft, including eight converted aircraft carriers. Under the circumstances, it was most difficult to formulate the work allocation plan.

The spectacular military achievements during the initial stages

Shipbuilding Plan

| Category | Individual Tonnage (standard displacement) | Number of Vessels | Total Tonnage | Type of Vessel | Maximum Speed and Cruising Range | Main Armament | Remarks |
|---------------------|--|-------------------|---------------|------------------------|----------------------------------|---|---|
| Aircraft Carrier | 17,460 | 2 | 34,920 | Hiryu Type | 34.0 18 - 8,000 | 12.7cm Twin Mount Guns 6 25mm Triple Mount Machine Guns 13 Aircrafts 57 | |
| " | 17,260 | 2 | 34,520 | " | 32.0 18 - 8,000 | | |
| " | 17,500 | 9 | 107,500 | Improved Hiryu Type | 34.0 18 - 8,000 | 12.7cm Twin Mount Guns 6 25mm Triple Mount Machine Guns 13 Aircrafts 53 | |
| " | 30,360 | 5 | 151,800 | Taiho Type | 33.3 18 - 10,000 | 10cm Twin Mount Guns 8 25mm Triple Mount Machine Guns 22 Aircrafts 54 | |
| Flying Boat Tender | 4,650 | 3 | 13,950 | Akitsuhashima Type | 37.5 14 - 7,500 | 12.7cm Twin Mount Guns 2 25mm Triple Mount Machine Guns 2 Aircraft 1 | |
| Cruiser Otsu | 8,520 | 2 | 17,040 | New Type | 37.5 18 - 6,000 | 15cm Twin Mount Guns 4 8cm Twin Mount Guns 4 25mm Triple Mount Machine Guns 3 Quadruple Torpedo Tubes .. 2. Aircraft 2 | |
| Submarine Tender | 12,479 | 3 | 37,437 | " | 21.0 16 - 10,000 | 12.7cm Twin Mount Guns 2 25mm Twin Mount Machine Guns 4 Aircraft 1 | |
| Emergency Net Layer | 1,608 | 1 | 1,608 | Improved Wakataka Type | 20.0 14 - 3,000 | 8cm Twin Mount Guns 2 13cm Twin Mount Machine Guns 2 | |
| Destroyer Ko | 2,077 | 8 | 16,616 | Yugumo Type | 35.0 18 - 5,000 | 12.7cm Twin Mount Guns 3 25mm Twin Mount Machine Guns 2 Quadruple Torpedo Tubes 2 | |
| Destroyer Otsu | 2,701 | 23 | 62,123 | Akiaki Type | 33.0 18 - 8,000 | 10cm Twin Mount Guns 3 25mm Twin Mount Machine Guns 2 Quadruple Torpedo Tubes 2 | |
| Submarine Ko | 2,390 | 3 | 7,170 | I-13 Type | 17.7 16 - 22,000 | 14cm Gun 1 25mm Machine Guns 4 Torpedo Tubes 6 Aircraft 1 | Speed and Cruising Range show those on surface. The same applies to other submarines. |
| " | 2,486 | 3 | 7,458 | New Type | 22.4 16 - 16,000 | 14cm Gun 1 25mm Machine Guns 4 Torpedo Tubes 6 Aircraft 1 | |
| Submarine Otsu | 2,140 | 14 | 29,960 | I-54 Type | 17.7 16 - 21,000 | 14cm Gun 1 25mm Machine Guns 2 Torpedo Tubes 6 Aircraft 1 | |
| " | 2,330 | 18 | 41,940 | New Type | 22.4 16 - 14,000 | 14cm Gun 1 25mm Machine Guns 2 Torpedo Tubes 8 Aircraft 1 | |
| Submarine Hei | 2,095 | 15 | 31,425 | I-52 Type | 17.7 16 - 21,000 | 14cm Guns 2 25mm Machine Guns 2 Torpedo Tubes 6 | |
| " | 2,285 | 25 | 57,125 | New Type | 22.4 16 - 14,000 | 14cm Gun 1 25mm Machine Guns 2 Torpedo Tubes 8 | |
| Submarine Medium | 965 | 43 | 41,495 | Ro-35 Type | 19.7 16 - 5,000 | 8cm Gun 1 25mm Machine Guns 2 Torpedo Tubes 4 | |

Shipbuilding Plan (Cont'd)

| Category | Individual Tonnage (standard displacement) | Number of Vessels | Total Tonnage | Type of Vessel | Maximum Speed and Cruising Range | Main Armament | Remarks |
|--------------------|--|-------------------|---------------|---------------------|----------------------------------|--|--|
| Submarine Special | 3,530 | 18 | 63,540 | New Type | 19.7 16 - 30,000 | 14cm Guns 2 25mm Machine Guns 6 Torpedo Tubes 8 Aircraft 3 | |
| Escort | 940 | 34 | 31,960 | Ukuru Type | 19.7 16 - 5,000 | 12cm Twin Mount Gun 1 12cm Gun 1 25cm Twin Mount Machine Guns 2 Depth Charges 120 | |
| Mine Sweeper | 646 | 36 | 23,256 | No 19 Type | 20.0 14 - 2,000 | 12cm Guns 3 25mm Twin Mount Machine Gun 1 Depth Charges 36 | |
| Submarine Chaser | 440 | 30 | 13,200 | No 13 Type | 16.0 14 - 2,000 | 8cm Guns 3 13cm Twin Mount Machine Gun 1 Depth Charges 36 | |
| Oil Tanker | 18,300 | 7 | 128,100 | Hayasui Type | 16.5 16 - 9,000 | 12.7cm Twin Mount Guns 2 25mm Triple Mount Machine Guns 2 Aircraft 6 | 9,800 tons of heavy oil and others for supply. |
| " | 15,600 | 8 | 124,800 | New Type | 20.0 18 - 10,000 | 12.7cm Twin Mount Guns 2 25mm Triple Mount Machine Guns 2 Aircraft 14 | 6,800 tons of heavy oil and others for supply. |
| Storeship | 910 | 7 | 6,370 | Kinesaki Type | 14.0 12 - 3,500 | 8cm Gun 1 13cm Twin Mount Machine Gun 1 Depth Charges 8 | Provisions 846 tons Fresh Water 58 tons |
| " | 9,719 | 1 | 9,719 | Irake Type | 17.5 14 - 6,600 | | |
| " | 5,300 | 2 | 10,600 | New Type | 18.0 16 - 8,000 | 12cm Guns 2 25mm Twin Mount Machine Guns 2 | Fresh provisions 450 tons Production materials 100 tons Fresh water 500 tons |
| Target Ship | 2,560 | 5 | 12,800 | " | 33.0 18 - 4,000 | 13cm Twin Mount Machine Guns 2 Depth Charges 18 | |
| Repair Ship | 9,600 | 2 | 19,200 | Akashi Type | 19.2 14 - 8,000 | 12.7cm Twin Mount Guns 2 25cm Twin Mount Machine Guns 2 | |
| Survey Ship | 1,399 | 1 | 1,399 | Tsukushi Type | 19.7 16 - 8,000 | | |
| Ice breaker | 7,040 | 1 | 7,040 | New Type | 17.0 14 - 5,500 | 12.7cm Twin Mount Guns 2 25mm Triple Mount Machine Guns 4 Aircraft 1 | Icebreaking capacity: Approximately one meter thick. |
| Light Mine Layer | 720 | 12 | 8,640 | Ajire Type | 20.0 14 - 2,000 | 12cm Gun 1 25mm Twin Mount Machine Gun 1 Depth Charges 36 | |
| Motor Torpedo Boat | 75 | 18 | 1,350 | Improved No 10 Type | 30.0 28 - 410 | 25mm Twin Mount Machine Gun 1 Torpedoes 4 Depth Charges 18 | |
| Total | | 361 | 1,156,061 | | | | |

Chart No 6

Approved Extraordinary Military Appropriations for Fiscal Year 1943

| Category | Individual Tonnage | Number of Vessel | Unit Price per Ton (in Yen) | Unit Price per Individual Vessel (in 1,000 yen) | Total Sum for the Category (in 1,000 yen) | Remarks |
|---|--------------------|------------------|-----------------------------|---|---|---------|
| Cruiser (Otsu) | 8,520 | 2 | 5,678 | 45,380 | 96,760 | |
| Flying Boat Tender | 4,650 | 3 | 5,221 | 24,273 | 72,834 | |
| Emergency Net Layer | 1,610 | 1 | 4,890 | 7,573 | 7,573 | |
| Aircraft Carrier (No 302 Type) | 17,250 | 13 | 5,417 | 93,442 | 1,214,746 | |
| Aircraft Carrier (Improved No 130 Type) | 30,400 | 5 | 4,294 | 130,550 | 652,750 | |
| Destroyer (Ko) | 2,600 | 8 | 7,048 | 18,325 | 146,600 | |
| Destroyer (Otsu) | 2,980 | 23 | 6,441 | 19,194 | 441,462 | |
| Submarine (Ko) | 2,490 | 6 | 8,676 | 21,604 | 129,624 | |
| Submarine (Otsu) | 2,282 | 32 | 9,187 | 20,965 | 670,880 | |
| Submarine (Hei) | 2,240 | 40 | 9,423 | 21,119 | 344,760 | |
| Submarine (Medium) | 1,000 | 43 | 8,686 | 8,686 | 373,498 | |
| Submarine (Special) | 3,500 | 18 | 8,246 | 23,361 | 519,498 | |
| Submarine Tender | 12,580 | 3 | 2,672 | 33,612 | 100,836 | |
| Escort | 1,200 | 34 | 5,167 | 6,200 | 210,840 | |
| Submarine Chaser | 420 | 30 | 6,943 | 2,318 | 87,540 | |
| Mine Sweeper | 700 | 36 | 5,621 | 3,935 | 141,660 | |
| Light Mine Layer | 720 | 12 | 6,232 | 4,157 | 53,844 | |
| Oil Tanker (No 304 Type) | 13,400 | 7 | 827 | 15,216 | 106,512 | |

Approved Extraordinary Military Appropriations for Fiscal Year 1943 (Contd)

| Category | Individual Tonnage | Number of Vessel | Unit Price per Ton (in Yen) | Unit Price per Individual Vessel (in 1,000 yen) | Total Sum for the Category (in 1,000 yen) | Remarks |
|-------------------------|--------------------|------------------|-----------------------------|---|---|-------------------|
| Oil Tanker (New Type) | 15,900 | 8 | 1,062 | 16,883 | 135,064 | |
| Icebreaker | 6,800 | 1 | 2,432 | 16,538 | 16,538 | |
| Storeship (No 74 Type) | 9,600 | 1 | 1,810 | 17,378 | 17,378 | |
| Storeship (New Type) | 5,500 | 2 | 2,889 | 15,891 | 31,782 | |
| Storeship (No 261 Type) | 1,000 | 4 | 2,923 | 2,928 | 11,712 | Seven in the Plan |
| Survey Ship | 1,600 | 1 | 4,710 | 7,536 | 7,536 | |
| Repair Ship | 9,420 | 2 | 2,444 | 23,027 | 46,054 | |
| Bomb Target Ship | 3,000 | 5 | 3,355 | 10,064 | 50,320 | |
| Motor Torpedo Boat | 100 | 18 | 23,850 | 2,385 | 42,930 | |
| Total | | 358 | | | 6,231,791 | |

Note: The following was added in the fiscal year 1944 to equip oil tankers to carry aircraft.

No 304 Type 29,064,000 yen for seven ships;
(¥ 4,152,000 per individual ship)

New Type 75,216,000 yen for eight ships;
(¥ 9,402,000 per individual ship)

Total 104,280,000 yen

Chart No 7

Status of naval vessels in the scheduled shipbuilding plan as at the end of June 1942.

| Category | Not yet laid down | Already laid down | Already launched | Total | Remarks |
|-------------------------|-------------------|-------------------|------------------|-------|---|
| Battleship | 0 | 2 | 1 | 3 | Third Plan: MUSASHI No 110 warship converted into aircraft carrier (SHINANO) No 111 warship suspended and dismantled Fourth Plan |
| Aircraft carrier | 2 | 0 | 0 | 2 | |
| Flying boat tender | 1 | 0 | 0 | 1 | |
| Cruiser | 2 | 3 | 3 | 8 | 2 craft suspended (one each from Fourth & Urgent). Work on one craft temporarily suspended after launching (Urgent Plan: IBUKI) |
| Destroyer | 25 | 8 | 6 | 39 | |
| Submarine | 53 | 26 | 19 | 98 | |
| Escort | 24 | 6 | 0 | 30 | |
| Minesweeper | 24 | 6 | 1 | 31 | |
| Subchaser | 15 | 9 | 4 | 28 | |
| Light minelayer | 16 | 2 | 1 | 19 | |
| Auxiliary vessels | 8 | 4 | 3 | 15 | |
| Light auxiliary vessels | 96 | 39 | 1 | 136 | |
| Total | 266 | 105 | 39 | 410 | Of the total, three craft suspended or cancelled. |

Details are as shown in Charts 8 and 9.

of the war added great impetus to the volume of work put out by all navy yards and private dockyards to which work was assigned.

However, with the increasing number of damaged ships entering the port, shortage of materials, and the gradual diminishing number of workers coupled with successive demands for newly planned smaller naval vessels arising from the new war situation, the substance of the Revised Fifth Plan changed daily. The results finally achieved are shown in Charts 8 and 9.

Air Strength

Combat Air Groups: The operational forces, together with the carrier and tender reserve forces at home and abroad, totalling 347 units (an increase of 219 units over the Fifth Plan and 83 units over the Fifth Wartime Plan) or 105 air groups (52 combat air groups assigned at home and 53 combat air groups assigned abroad) totalling 7,832 planes, combining the normal complement and immediate reserve, were to be maintained. (See Chart 10.)

Training Air Groups: 183 training air units (under 45 training air groups) were to be maintained. This was an increase of 27 units over the Fifth Plan. The normal complement of planes plus the immediate reserve was to be 4,939. (See Chart 10.)

Shipborne Air Strength: 129 units were to be maintained. The normal complement plus immediate reserve planes were to total 2,467. (See Chart 10.)

936 transport planes were to be maintained. (See Chart 10.)

| Name of Plan | Category | Number of ships planned | Number of Unfinished Ships | | | Total | Remarks |
|--------------|-----------------------|-------------------------|----------------------------|-------------------|------------------|------------|----------------------|
| | | | Not yet laid down | Already laid down | Already launched | | |
| "Urgent" | Cruiser | 2 | 0 | 2 | 0 | 2 | Ibuki and others |
| | Aircraft Carrier | 1 | 1 | 0 | 0 | 1 | Uryu |
| | Flying Boat Tender | 1 | 1 | 0 | 0 | 1 | |
| | Destroyer (Ko) | 16 | 14 | 2 | 0 | 16 | Hayanami and others |
| | Destroyer (Otsu) | 10 | 10 | 0 | 0 | 10 | Shimozuki and others |
| | Submarine (Otsu) | 6 | 1 | 5 | 0 | 6 | |
| | Submarine (HoI) | 6 | 6 | 0 | 0 | 6 | |
| | Submarine (Medium) | 12 | 10 | 2 | 0 | 12 | |
| | Submarine (Small) | 9 | 7 | 2 | 0 | 9 | |
| | Escort | 30 | 24 | 6 | 0 | 30 | |
| | Minesweeper | 28 | 24 | 4 | 0 | 28 | |
| | Subchaser | 20 | 15 | 5 | 0 | 20 | |
| | Light Mineslayer | 14 | 14 | 0 | 0 | 14 | |
| | Auxiliary Subchaser | 100 | 67 | 33 | 0 | 100 | |
| | Auxiliary Minesweeper | 16 | 11 | 5 | 0 | 16 | |
| | Tanker | 4 | 3 | 1 | 0 | 4 | Kasahaya type |
| | Motor Torpedo Boat | 18 | 18 | 0 | 0 | 18 | |
| Total | | 293 | 226 | 67 | 0 | 293 | |
| "Supplement" | Submarine (Ko) | 2 | 2 | 0 | 0 | 2 | |
| | Submarine (Otsu) | 12 | 9 | 3 | 0 | 12 | |
| | Submarine (Medium) | 15 | 15 | 0 | 0 | 15 | |
| | Submarine (Refueling) | 3 | 3 | 0 | 0 | 3 | |
| | Target Ship | 1 | 1 | 0 | 0 | 1 | |
| | Total | | 33 | 30 | 3 | 0 | 33 |

Chart No 9

Results of Ship Construction Under the Revised Fifth Plan

| Category | Number of Ships | | | |
|---------------------|-----------------|-----------|--------------------|------------------------------|
| | Planned | Completed | Under construction | Not yet started or cancelled |
| Aircraft carrier | 18 | 2 | 3 | 13 |
| Flying boat tender | 3 | 0 | 0 | 3 |
| Submarine tender | 3 | 0 | 0 | 3 |
| Cruiser | 2 | 0 | 0 | 2 |
| Emergency net layer | 1 | 0 | 0 | 1 |
| Destroyer | 31 | 0 | 0 | 31 |
| Submarine (Ko) | 6 | 1 | 2 | 3 |
| Submarine (Otsu) | 32 | 0 | 0 | 32 |
| Submarine (Hai) | 40 | 0 | 0 | 40 |
| Submarine (Medium) | 43 | 0 | 0 | 43 |
| Submarine (Special) | 18 | 3 | 1 | 14 |
| Escort | 34 | 12 | 4 | 18 |
| Minesweeper | 36 | 0 | 0 | 36 |
| Subchaser | 30 | 3 | 0 | 27 |
| Oil tanker | 15 | 0 | 0 | 15 |
| Storeship | 10 | 0 | 0 | 10 |
| Target ship | 5 | 1 | 1 | 3 |
| Repair ship | 2 | 0 | 0 | 2 |
| Survey ship | 1 | 0 | 0 | 1 |
| Ice breaker | 1 | 0 | 0 | 1 |
| Light minelayer | 12 | 0 | 0 | 12 |
| Motor Torpedo boat | 18 | 0 | 0 | 18 |
| Total | 361 | 22 | 11 | 328 |

Flight personnel were estimated at 40,500. The number of teams of flight personnel for large planes was to be twice the number for the wartime plane complement and for other types of planes the number was to be one and a half times the normal complement. The required number of personnel for training groups was to be maintained constantly.

Flight engineers were estimated at 2,470 and the assigned personnel ratio was to be the same as for flight personnel. Aircraft engineers were to total 57,800 and ordnance engineers 19,400.

In order to execute this plan, it was necessary to emphasize aircraft production as a national policy and to take measures to give top priority to the Navy with regard to the allotment of materials.

It was evident from the Navy Minister's reply to the Chief of the Naval General Staff that it was considered that there were many problems to overcome. Principal among these was the fact that if the rate of consumption of materials in the future was to be assumed to be the same as that during the four months from the outbreak of war to the end of March 1942, a delay of a year could be anticipated in the completion of planes. The anticipated date of completion would then be the end of the fiscal year 1947. Also, if the complement of flight personnel were increased by the approximate rate of 1.2 times the plane complement, their training would be generally completed in parallel with the rate of manufacture of the planes.

Chart No 10

The Air strength Increase Plan for Fiscal Year 1942 (The Revised Fifth Plan)

The combat air group

| Air Strength | Category | Number of Planes per Air Unit | Required Number of Air Unit in Revised Fifth Plan | Required Number of Air Units in Fifth Plan (wartime strength) | Increase or decrease of Air Units in Revised Fifth Plan |
|---|------------------------------|-------------------------------|---|---|---|
| Landbase air strength | Land fighter Plane | 18/6 | 100 | 44 | (+) 56 |
| | Fighter-bomber | | 60 | 26 | (+) 34 |
| | Land Reconnaissance Plane | | 9 | 4 | (+) 5 |
| | Land attack Plane | Large | 10 | 20 | (-) 10 |
| | | Medium | 60 | 30 | (+) 30 |
| | Seaplane fighter | 12/4 | 12 | 22 | (-) 10 |
| | Seaplane bomber | | 13 | 13 | 0 |
| | Patrol Plane | | 26 | 16 | (+) 10 |
| | Transport Plane | 18/6 | 4 | 4 | 0 |
| | Flying boat | Large | 9/3 | 0 | 24 |
| Medium | | 12 | | 24 | (-) 12 |
| Air strength prepared for converted vessels | Carrier fighter | 18/6 | 13 | 7 | (+) 6 |
| | Carrier bomber | | 20 | 11 | (+) 9 |
| | Carrier attack Plane | | 3 | 0 | (+) 3 |
| | Carrier reconnaissance Plane | 0 | 2 | (-) 2 | |
| | Seaplane fighter | 12/4 | 0 | 12 | (-) 12 |
| | Reconnaissance Seaplane | | 0 | 12 | (-) 12 |
| Total | | | 347 | 164 | (+) 33 |

Notes: The strength of large land attack planes in wartime is the same as that in peacetime.
The combat air group figures shown are wartime; the strength in peacetime was one half the wartime strength.

Shipborne air strength

Carrier planes: 106 units (Number of aircraft of one unit: 18 normal complement and 6 immediate reserves)

Seaplanes: 23 units (Number of aircraft of one unit: seaplane fighters, 18 and 6; reconnaissance seaplanes, 12 and 4)

Transport planes

To be assigned in accordance with the following:

| Units to which planes will be assigned | Standard of Assignment | Remarks |
|--|---|--|
| Land attack plane unit | Three large planes for one air unit | |
| Flying boat unit | Two large planes for one air unit | |
| Land base small plane unit | | |
| Carrier plane unit | One large plane and one small plane for one air unit | One-half of the number prescribed by the standard of assignment at the time of actual loading shall be maintained. |
| Shipborne seaplane unit | | |
| Training unit | One large plane and one small plane for one air group | |
| Navy Ministry and Navy Guard Districts | One large plane and one small plane for each naval district and guard district; two large planes and two small planes for the central office. | |

Total 926 planes

The training air group

| Category | Number of plane per unit | Required number of Air Units in Revised Fifth Plan | | Required number of Air Units in Fifth Plan | |
|-------------------|---|---|-------|---|-------|
| Training aircraft | 12/12 | 93.0 | 183.0 | 73.0 | 156.0 |
| Combat aircraft | Same as number of aircraft of combat air unit, but the number of combat aircraft of the pilot-observer training unit shall be the same as that of its reserve aircraft. | 90.0 | | 83.0 | |

If the complement were increased by 1.5 times, the completion of the training would be delayed another year, or until the end of the fiscal year 1948.

Although the naval authorities started the plan with high hopes of its successful completion, many difficulties confronted them, both because of the unprecedently large size of the plan and also because the operational situation had begun to deteriorate. The production increase of aircraft failed to show the expected progress and losses increased tremendously. During the fall of 1942, in the Southeast Area, the annual loss of planes rose to 95 percent. Thus, the plan which was intended to be the main prop of strength maintenance until the termination of the war, had to be adjusted gradually with various emergency supplementary plans as operations developed, in order to meet new situations as they arose.

Supplementary Adjustments to Revised Fifth Plan

The whole substance of the Revised Fifth Plan, through successive heated deliberations since the outbreak of the war and through a drastic revision as the result of the Battle of Midway, was finally decided in early August, 1942 and put into motion. The Chief of the Naval Affairs Bureau of the Navy Ministry submitted the following notification to the authorities concerned on 30 September, 1942 in order to notify them that the name of the revised plan had been abbreviated to "Revised Fifth Plan" and to obtain a

unanimous understanding as to the relation between the Revised Fifth Plan and the War Preparation Acceleration and Execution Plan.

Naval Affairs Bureau First Secret Document No. 738

30 September 1942

From: Chief of Naval Affairs Bureau, Navy Ministry
To : Chiefs of Bureaus concerned, Navy Ministry
Chief, Naval Technical Department
Chief, Naval Aeronautical Department
Chief, Naval Civil Engineering Department
Chief, First Bureau, Naval General Staff
Chief, Second Bureau, Naval General Staff

Notification Concerning the Abbreviation of the Name of the New Armament Plan.

It shall be understood that those plans of the requested naval strength mentioned in the Naval General Staff Document No. 191 (Wartime Plan for the Fiscal Year 1942), with the exception of the plan for the fiscal year 1939 (Fourth) and the War-time Plan for the Fiscal Year 1941 (Urgent) will be known by the abbreviated title of "Revised Fifth Plan".

It shall be known that in reference to the relation between the abovementioned plan and the War Preparation Acceleration and Execution Plan, the latter's strength will correspond to that which is represented by the formula "Fifth + A - B".

Supplementary Ship Construction Plan to Revised Fifth Plan

Soon after the Revised Fifth Plan was begun the war developed into a large scale war of attrition, struggling for the control of the Southeast Area. Therefore, the Naval General Staff demanded the construction of an additional 18 submarines (Type TEI) in October 1942, and 42 destroyers (Type TEI) in early 1943.

The following Naval General Staff Secret Documents No. 309 and No. 37 refer to this construction.

Naval General Staff Secret Document No. 309

21 October 1942

From: Chief of Naval General Staff
To : Navy Minister

Request concerning Additional Ship Construction to the Wartime Air Strength Expansion and Ship Construction and Replenishment Plan for Fiscal Year 1942.

In view of the development of the situation in the Greater East Asia War, I hope the abovementioned request will be accepted and initiated in accordance with the program mentioned in the annexed document.

(Annex Document)

Supplementary Wartime Ship Construction and Replenishment Plan for Fiscal Year 1942

The plan shall be commenced in fiscal year 1942 and completed by the end of 1944.

The ships to be constructed and their main essentials are shown on Chart No. 11.

Naval General Staff Secret Document No. 37

2 February 1943

From: Chief of Naval General Staff
To : Navy Minister

Request Concerning Additional Ship Construction for the Wartime Air Strength Acceleration and Ship Construction Replenishment Plan for Fiscal Year 1942.

In view of the development of the war situation since the start of the Greater East Asia War and taking into consideration its future development, we believe that it is of vital importance to increase the number of destroyers. Therefore, we hope that you will accept the request and initiate the execution of the project in accordance with the plan in the annexed document.

Annexed Document

The Second Supplementary Plan for Wartime Ship Construction and Replenishment Plan for Fiscal Year 1942

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

The ships to be constructed and their main essentials are shown on Chart No. 12.

The Navy Ministry fully acknowledged the operational demands of this plan but felt that if it were put into force at this time great confusion would result. The Revised Fifth Plan, had just been started and the Execution Plans for Expediting War Production (First Period) were under way. It was decided, therefore, that the execution of the proposed plan should be studied first and then woven into the Execution Plans for Expediting War Production (Second Period) which were to be determined in the near future. Moreover, budgets and items were to be disposed as supplements to the Revised Fifth Plan.

The approved budget and details of the actual results achieved are shown on Chart No. 13.

Chart No 11

Ships to be Completed End of Fiscal Year 1944

| Category | Number of Ships | Standard Displacement | Speed | Cruising Range | Other Essentials |
|--------------------|-----------------|-----------------------|--|---|---|
| Submarine (TEI) | 11 | approx 1,500 tons | Surface over 12 knots Submerged speed approx 6 knots | Surface cruising range approx 15,000 n. miles at 10 knots. Submerged cruising range approx 60 n. miles at 3 knots. | <ol style="list-style-type: none"> 1. 40 caliber 14cm gun 1 2. Two 25mm single mount machine guns. Portable type which can be mounted at the loading deck of the special type cargo lighters. 3. Two 53cm bow torpedo tubes Two torpedoes 4. Main Personnel and Arms Loaded <ol style="list-style-type: none"> a. Land combat personnel approx 110 b. Land combat equipment approx 10 tons c. Special landing barges 2 d. Special rubber boats several 5. Others <ol style="list-style-type: none"> a. Submersible limit 75 meters b. Continuous cruising endurance approx 2 months c. Special consideration shall be given for equipping so that loading and unloading will be done promptly and easily. |

Chart No 12

Ships to be Completed End of Fiscal Year 1945

| Category | Number of Ships | Standard Displacement | Speed | Cruising Range | Other Essentials |
|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|---|
| Destroyer (TEI) | 42 | 1,250 tons | approx 28 knots | Approx 3,500 n. miles at 18 knots | <ol style="list-style-type: none"> 1. One 12.7 cm twin mount dual purpose gun One 12.7 cm single mount dual purpose gun 2. Four 25 mm triple mount machine guns 3. One 53 cm six mount torpedo tube Six torpedoes 4. Thirty-six depth charges Two depth charge throwers 5. One echo ranging set One hydrophone 6. One radar 7. Two 10 M Special cargo lighters Two cutters |

Chart No 13

Approved Budget and Actual Results Achieved 1944

| Category | Tonnage | Number of Ships | Cost per Ton in yen | Cost per Ship in Thousand Yen | Total in Thousand Yen | Remarks |
|-----------------------------|---------|-----------------|---------------------|-------------------------------|-----------------------|----------------------------------|
| Destroyer (TEI) | 1,260 | 32 | 7,041 | 9,326 | 298,432 | Approved in the fiscal year 1944 |
| " | " | 10 | 7,630 | 9,614 | 96,140 | Approved in the fiscal year 1945 |
| Submarine (TEI) | 1,500 | 11 | 6,289 | 9,426 | 103,686 | Approved in the fiscal year 1944 |
| Total | | 53 | | | 498,258 | |
| Total in Revised Fifth Plan | | 411 | | | 6,730,049 | |

Actual Results

| Category | Number of Ships | | | |
|-----------------------------|-----------------|----------|--------------------|------------------------------|
| | Planned | Complete | Under construction | Not yet started or cancelled |
| Destroyer (TEI) | 42 | 26 | 5 | 11 |
| Submarine (TEI) | 11 | 11 | 0 | 0 |
| Total | 53 | 37 | 5 | 11 |
| Total in Revised Fifth Plan | 414 | 59 | 16 | 339 |

27

| Category | Individual Tonnage (Standard Displacement) | Number of Ships | Total Tonnage | Type | Top Speed and Cruis- ing Range | Main Armament |
|-----------------------------------|---|--------------------|---------------|-------------|---|---|
| Destroyer (TEI) | 1,262 | 42 | 53,004 | New Type | 27.8 knots 3,500 n. miles at 18 knots | One 12.7 cm twin mount gun One 12.7 cm single mount gun Four 25 mm triple mount machine gun One 03 Type torpedo tube. |
| Submarine (TEI) | 1,470 | 11 | 16,170 | " | 13.0 knots 15,000 n. miles at 10 knots | One 14 cm gun Two 25 mm machine guns Two torpedo tubes |
| Total | | 53 | 69,174 | | | |
| Total in Revised Fifth Plan | | 414 | 1,225,235 | | | |

Appendix I

Naval General Staff Secret No 191

30 June 1942

To : Minister of the Navy

From: Chief of the Naval General Staff

Request Concerning Increase of Wartime Air Strength and Building and Replenishment of Navy Vessels for Fiscal Year 1942.

In reference to the building and replenishment of Navy vessels and an increase in air strength, requests were previously forwarded for the plan for the fiscal year 1942, and later, with the opening of hostilities for the wartime plan for the fiscal year 1941. In view of subsequent developments and the enforcement of an enormous armament expansion program by the U.S. Navy, it has become urgently necessary to replenish and maintain wartime armament by revising a portion of the previously determined plans. Accordingly, I request you to take the necessary steps to execute this measure as set forth in the attached plan.

Attached Plan

Wartime Air Strength Expansion and Ship Replenishment Plan for Fiscal Year 1942.

In view of the battle lessons gained since the outbreak of war, the development of the war situation and the enforcement by the U.S. Navy of a gigantic armament expansion plan, strength most suitable for bringing the war to a successful conclusion shall be selected and be held in readiness.

In consideration of materials available and productive capacity, at this juncture, strength absolutely indispensable shall be held in readiness, according to the following order of urgency:

Aircraft

Aircraft carriers

Submarine and anti-submarine forces

Other naval vessels

With regard to the expansion of air strength, the contents of the Fifth Plan shall be revised in accordance with the following policy and the completion of the pre-arranged plans shall be expedited to the utmost.

Aircraft

In view of our progress in experiments in the light of current battle lessons and our production capacity, in order to meet the changing situation, production emphasis shall be placed on aircraft of such types as are most needed for promoting the war.

Air Bases

Emphasis shall be placed on front-line bases according to the changes in the situation. The maintenance of air bases in the homeland area shall, for the time being, be limited to minimum requirements.

Expansion of Air Strength

The First Phase Air Strength Plan, included in Ship Replenish-

Chart No 1

Land-based Air Strength

| Strength | Kind of aircraft | | Normal plane complement for one air unit | Number of units required | Number of units called for Fifth Plan | Increase or decrease in number of units after revision | |
|---|---------------------------|--------------------|--|--------------------------|---------------------------------------|--|-----|
| Land based air strength | Land fighter plane | Interceptor | 18 | 40 | 44 | (+) | 56 |
| | | Long range fighter | | 60 | | | |
| | Fighter-bomber | | | 60 | 26 | (+) | 34 |
| | Land reconnaissance plane | | | 9 | 4 | (+) | 5 |
| | Land attack plane | Large | | 10 | 20 | (-) | 10 |
| | | Medium | | 60 | 30 | (+) | 30 |
| | Seaplane fighter | | | 12 | 22 | (-) | 10 |
| | Seaplane bomber | | | 12 | 12 | | 0 |
| | Patrol plane | | | 26 | 16 | (+) | 10 |
| | Transport plane | | | 18 | 4 | | 0 |
| Air strength replacement for carrier borne planes | Flying boat | Large | 9 | 0 | 24 | (-) | 24 |
| | | Medium | 12 | 24 | (-) | 12 | |
| | Carrier fighter | | 15 | 13 | 0 | (+) | 13 |
| | Carrier attack plane | | 20 | 0 | 0 | (+) | 20 |
| Carrier bomber | | 3 | 0 | 0 | (+) | 3 | |
| Carrier reconnaissance plane | | | | | | | |
| Total | | | | 347 | 232 | (+) | 115 |

ment and Air Strength Expansion Plan for Fiscal Year 1942 contained in Naval General Staff Secret Document No. 471, shall be revised as follows:

Land-based air strength

The land-based air strength shown on Chart I indicates wartime strength. The immediate reserve of planes shall be one-third of the normal plane complement.

Although the number of large land attack plane units is 10 for the time being, speedy construction of a further 10 units during and after the fiscal year 1947 shall be considered.

Although peacetime strength is considered to be generally one-half of the wartime strength, conferences shall be held in accordance with the situation at the time of the conversion.

Shipborne air strength

| Kind of aircraft | Normal plane complement for one air unit | Number of units necessary for stand-ing vessels | Number of units necessary for con-verted ships | Total number of air units |
|-------------------------------|--|---|--|---------------------------|
| Carrier fighter | 18 | 33 | 5 | 38 |
| Carrier bomber | | 51 | 9 | 60 |
| Carrier attack plane | | | | |
| Carrier recon-naissance plane | | | | |
| Seaplane fighter | | 2 | 0 | 2 |
| Reconnaissance seaplane | 12 | 13 | 8 | 21 |
| Total | | 107 | 22 | 129 |

Chart No 1

Land-based Air Strength

| Strength | Kind of aircraft | Normal plane complement for one air unit | Number of units required | Number of units called for Fifth Plan | Increase or decrease in number of units after revision | | |
|---|------------------------------|--|--------------------------|---------------------------------------|--|-----|----|
| Land based air strength | Land fighter plane | 18 | 40 | 44 | (+) | 56 | |
| | Interceptor | | 60 | | | | |
| | Long range fighter | | | | | | |
| | Fighter-bomber | | 60 | 26 | (+) | 34 | |
| | Land reconnaissance plane | | 9 | 4 | (+) | 5 | |
| | Land attack plane | | 10 | 20 | 30 | (-) | 10 |
| | Large | | | 60 | | | |
| | Medium | | | | | | |
| | Seaplane fighter | | 12 | 22 | (-) | 10 | |
| | Seaplane bomber | | 12 | 18 | | 0 | |
| Patrol plane | 26 | 16 | (+) | 10 | | | |
| Transport plane | 18 | 4 | | 0 | | | |
| Flying boat | Large | 9 | 0 | 24 | (-) | 24 | |
| | | | Medium | 12 | 24 | (-) | 12 |
| Air strength replacement for carrier borne planes | Carrier fighter | 15 | 13 | 0 | (+) | 13 | |
| | Carrier attack plane | | 20 | 0 | (+) | 20 | |
| | Carrier bomber | | 3 | 0 | (+) | 3 | |
| | Carrier reconnaissance plane | | | | | | |
| Total | | | 347 | 232 | (+) | 115 | |

The immediate reserve of planes shall generally be limited to approximately one-third of the normal plane complement, part of which shall be placed on board ships and the remainder held in readiness at the replacement bases for carrier-borne planes and inner combat bases.

Training air units

| Kind of aircraft | Normal plane complement for one air unit | Number of units required | Total No. of air units |
|------------------|--|--------------------------|------------------------|
| Training plane | 12 | 93.0 | 183.0 |
| Combat aircraft | Same as combat air unit | 90.0 | |

The immediate reserve of training planes shall consist of the normal plane complement.

The number of combat aircraft for pilot and reconnaissance training units shall be the same as the normal plane complement and for other training air units it shall be one-third of the normal plane complement, with the exception of flying boats, which shall be same as the normal complement.

Training planes

Transport planes shall be held in readiness in accordance with the following:

| Units | Standard of assignment | Remarks |
|---|---|---|
| Land attack plane | 3 large planes for one air unit | Equivalent to one-half of shipborne shall be held in readiness. |
| Flying boat | 3 large planes for one air unit | |
| Land based small aircraft | 2 large planes for one air unit | |
| Carrier plane | | |
| Shipborne sea-plane | | |
| Training air group | 1 large and 1 small planes for one air group | |
| Navy District, Guard District and Navy Ministry | 1 large plane and 1 small plane for Naval District, Guard District and Fleet Headquarters. 2 large planes and 2 small planes for the central authorities. | |

Flight personnel

In regard to the personnel of units committed in an operation, the number of teams shall be twice that required for large planes of wartime normal plane complement and one and a half times for other types of planes. The training shall train personnel so as to meet these requirements.

Ten thousand (10,000) pilots and observers shall be trained each year during the war after the fiscal year 1945, and, 10 percent of this number shall be earmarked as reserve personnel.

Up to 2,800 officers, shall be trained immediately and assigned

to posts of the Division Officer or lower posts.

Air Group and Air Base

Operational air bases and carrier-borne plane replenishment bases shall be organized by the end of the 1946 fiscal year in accordance with Chart 2 and the air groups and base units shall be organized according to the demand of the operations. The air group disposition program during the completion of this revised plan shall be as shown on Chart 3. However, it may be changed according to future operations and other conditions.

Construction and Replenishment of Ships

Ships Stipulated in the Construction Plan for Fiscal Year 1939

No. 110 Warship:

The warship shall be converted into an aircraft carrier by the end of 1944. Essential particulars shall be discussed later.

No. 111 Warship:

Construction shall be discontinued and the ship shall be immediately dismantled.

No. 137 Warship:

Construction shall be discontinued.

Ships Stipulated in the Wartime Construction Plan for Fiscal Year 1941

No. 300 Warship:

This ship shall be launched quickly but further work shall then be suspended.

No. 301 Warship:

The construction shall be discontinued.

The first period plan shown in the Naval General Staff Secret Document No. 471 shall be revised as shown in Chart 4 and completed by the end of 1947.

In regard to increasing the number of converted aircraft carriers, discussion shall be held later.

Ships to be constructed, both essential particulars of new and improved Fifth Plan type are as shown in Chart 5.

Appendix II

Official Reply from the Ministry of Navy:

Secretariat Secret Document No 9599-2

3 August 1942

From: Minister of Navy

To : Chief of Naval General Staff

Reply to the Request Concerning the Wartime Reinforcement of Air Strength and Additional Construction of Vessels for Fiscal Year 1942.

Although it is anticipated that, in view of the current situation, many difficulties will be encountered in executing the above-mentioned matters requested in the Naval General Staff Secret Document No 191, every effort will be exerted to meet your wishes. As for the details of the plan, the Vice-Minister of Navy, will communicate with the Vice-Chief of Naval General Staff in regard to details of the plan.

(The End)

Reference Material Added to the Reply

30 July 1942

From: Bureau of Naval Affairs, Navy Ministry

Prospect of maintaining the Strength Requested in Naval General Staff Secret Document No 191.

Air Strength: The date scheduled for the completion of air-

craft should be decided in accordance with production capacity and the rate of loss. Therefore, if we estimate the future rate of loss from the outbreak of war to the end of last March as a provisional basis, it is expected that the plan will be completed at the end of fiscal year 1947. The training of personnel will be approximately 20 percent more than the complement believed necessary generally for the completion of the plan. In case 50 percent more personnel than the complement is required, the completion of training will be delayed a further year.

As the maintenance of patrol planes and fighter-bombers cannot possibly meet the demand of the Naval General Staff, it is deemed necessary to substitute other types of planes for them and that further study and investigation be conducted as to the capabilities of maintaining air bases and disposing of strength.

Naval Vessels: The current situation is such that the completion of the construction of Navy vessels must inevitably be delayed approximately one year chiefly because of the shortage of materials and labor. Furthermore, there are many production installations of various types which, in executing this plan, require expansion or new construction. Although concrete measures are being studied, it is impossible, for the time being, to make ample preparations for expanding the dry docks, mooring docks and supply facilities required for the increase in strength of naval vessels. Furthermore, an increase in the number of damaged ships to be repaired will exert considerable influence upon the execution

of the plan.

Construction of Merchant Ships: Shipping space is an absolutely necessary factor in the prosecution of a war. In view of the fact that the construction of merchant vessels since the outbreak of the war has failed to make as good progress as anticipated, various emergency measures are now being studied. One is to put the construction of merchant vessels under the single control and jurisdiction of the Navy by regarding it as part of the naval armament; another is aimed at the smooth supply of materials and labor. It is impossible to maintain naval vessels by restricting the construction of merchant ships as was done before the war. It is the duty of the Navy to take the responsibility for the maintenance and strengthening of shipping.

Arms: In view of the present situation under which the supply of various kinds of arms is very difficult, increased production required by the projected expansion of naval strength cannot be achieved unless every possible means is taken and utmost effort are exerted. It is especially true in the case of air arms. The productive capacity for fuel is expected to be increased to approximately 70 percent of present requirements.

Facilities: In view of the recent shortage of labor and materials, it is evident that the nation's production capacity is reaching its maximum. Consequently, in order to meet production requirements, it is imperative to further study the priority system.

Materials: For the execution of this program, a shortage of 300,000 to 400,000 tons in the annual quota of steel as well as a considerable shortage in aluminum is expected. The situation in regard to other special metals is also expected to worsen. Therefore, the Navy must plan an allotment increase in the material mobilization quota and the nation must expedite the development of resources for these materials and increase their production.

Transportation: As a result of the proposed expansion of armament and extension of operational lines, increase in transportation capacity would inevitably be required. However, present conditions make it impossible to meet these requirements. Unless these difficulties can be surmounted, the expansion of armament and preparations for war will be hindered to a considerable degree.

Military men: According to the program, the fixed number of commissioned personnel at the end of fiscal year 1947 is estimated at approximately 760,000 and that of the wartime personnel at approximately one million. The annual minimum number of the required conscripts is estimated at 150,000. However, according to the number of personnel to be allotted to the Navy, determined by the recent agreement between the Army and Navy, there will be an annual shortage of approximately 40,000. Consequently, it calls for further consideration by Army and Navy authorities.

Laborers: It is estimated that the total number of laborers required during the fiscal year 1947 will be more than 2,600,000 (at present it is estimated to be 1,600,000), inclusive of laborers

required by plants outside the Navy's direct control. Moreover, when the estimated average loss of laborers which at 10 percent, is taken into consideration, a further 300,000 to 350,000 laborers will be required each year. However, the annual allotment of conscript laborers expected by the Navy ranges at the most between 200,000 to 250,000. Such being the case, the shortage of laborers must be compensated for by the utmost utilization of Koreans, Formosans, prisoners of war and inhabitants on the spot, as well as by the reduction of personnel in charge of administrative affairs and by improving efficiency.

Expenses: Roughly estimated expenses necessary for the execution of the established armament and war preparation plans, as well as the existing plans, are as follows: (in 100 million yen)

| Fiscal Year | 1943 | 1944 | 1945 | 1946 | 1947 |
|-------------------------|------|------|------|------|------|
| Organizational expenses | 102 | 95 | 91 | 88 | 74 |
| Maintenance expenses | 26 | 38 | 49 | 59 | 70 |
| Total | 128 | 133 | 140 | 147 | 144 |

As the Army expenses required approximately the same amount, it became necessary to float loans to raise the money.

Conclusion: In view of the urgency of the situation, important items in this plan will be initiated. However, in view of the fact that there are many difficulties to be surmounted in order to accomplish Naval General Staff's Plan, utmost efforts will have to be made to realize it by adopting the priority system and by adjusting the relations between various departments to the fullest extent.

At the same time, in order to accomplish the proposed expansion of air strength (inclusive of aircraft carriers, communications and arms for aircraft, as well as many other items related to aircraft), it is necessary to prepare a plan to abandon, or postpone, the maintenance of other strength. Furthermore, it will be necessary to take various measures to give priority to the Navy with reference to the allocation of personnel and materials.