

SECRET

JOINT BOARD ESTIMATE OF
UNITED STATES OVER-ALL PRODUCTION
REQUIREMENTS.

SEPTEMBER 11, 1941.

September 11, 1941.

JOINT BOARD ESTIMATE OF
UNITED STATES OVER-ALL PRODUCTION
REQUIREMENTS.

I. DIRECTIVE.

1. The directive requesting the Secretaries of War and of the Navy to undertake an exploration of over-all production requirements of the United States is contained in a letter from the President. This letter, which was referred to the Joint Board for recommendation, is quoted as follows:

"July 9, 1941.

My dear Mr. Secretary:

I wish that you or appropriate representatives designated by you would join with the Secretary of War and his representatives in exploring at once the over-all production requirements required to defeat our potential enemies.

I realize that this report involves the making of appropriate assumptions as to our probable friends and enemies and to the conceivable theatres of operation which will be required.

I wish you would explore the munitions and mechanical equipment of all types which in your opinion would be required to exceed by an appropriate amount that available to our potential enemies. From your report we should be able to establish a munitions objective indicating the industrial capacity which this nation will require.

I am not suggesting a detailed report but one that, while general in scope, would cover the most critical items in our defense and which could then be related by the OPM into practical realities of production facilities. It seems to me we need to know our program in its entirety, even though at a later date it may be amended.

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I. DIRECTIVE (Cont'd)

I believe that the confidential report which I am asking you to make to me would be of great assistance, not only in the efficient utilization of our productive facilities but would afford an adequate opportunity for planning for the greatly increased speed of delivery which our defense program requires.

I am asking Mr. Hopkins to join with you in these conferences. I would appreciate it if the Secretary of War could take the initiative in these conferences.

Very sincerely yours,

/s/ Franklin D. Roosevelt."

2. In solving this problem, it is first necessary to conceive how our potential enemies may be defeated. Having arrived at this conception, it is possible to estimate the military forces required to carry out the operations planned. Once a statement of the major forces is completed, the critical items of equipment may readily be computed.

3. The production requirements mentioned in The President's letter refer to the materials which the United States will be called upon to provide for supporting successful military action against our potential enemies. Any military action by the United States ought to be undertaken only in accordance with sound military policy, necessarily based upon sound strategy. This paper, therefore, will present views as to how the national policy of the United States can best be supported by a military policy which shall guide all military operations, undertaken either by the armed forces of the United States, or by the armed forces of other Powers which may be associated with the United States. Categories of forces and approximate strengths which the United States should raise, or which it should support in whole or in part, will then be listed. In the interest of brevity, lines of reasoning and supporting arguments are omitted.

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II. MAJOR MILITARY POLICY.

4. Germany, and all German-occupied countries whose military forces cooperate with Germany; Japan and Manchukuo; Italy; Vichy France; and possibly Spain and Portugal, are assumed potential enemies. Countries considered as friends or potential associates in war are the British Commonwealth, the Netherlands East Indies, China, Russia, Free France, peoples in German-occupied territory who may oppose Germany, and the countries of the Western Hemisphere.

5. Those major national objectives of the United States which are related to military policy may broadly be stated as: preservation of the territorial, economic and ideological integrity of the United States and of the remainder of the Western Hemisphere; prevention of the disruption of the British Empire; prevention of the further extension of Japanese territorial dominion; eventual establishment in Europe and Asia of balances of power which will most nearly ensure political stability in those regions and the future security of the United States; and, so far as practicable, the establishment of regimes favorable to economic freedom and individual liberty.

6. Since the paramount territorial interests of the United States are in the Western Hemisphere, it is fundamental that the United States must provide armed forces appropriately disposed, which in all eventualities, and operating in cooperation with the forces of other American Powers, can successfully prevent the extension in the Western Hemisphere of European or Asiatic political or military power, even though the British Commonwealth had collapsed.

7. Attainment of this objective alone will not lead to the success of all of the national policies mentioned in paragraph 6. These national policies can be effectuated in their entirety only through military victories outside this hemisphere, either by the armed forces of the United States, by the armed forces of friendly Powers, or by both.

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II. MAJOR MILITARY POLICY. (Cont'd)

8. Should Germany be successful in conquering all of Europe, she might then wish to establish peace with the United States for several years, for the purpose of organizing her gains, restoring her economic situation, and increasing her military establishment, with a view to the eventual conquest of South America and the military defeat of the United States. During such a period of "peace", it seems likely that Germany would seek to undermine the economic and political stability of the countries of South America, and to set up puppet regimes favorable to the establishment on that continent of German military power. In such circumstances, Germany would have better chances to defeat the United States. This concept can not be accepted as certain, because it is conceivable that Germany might at once seek to gain footholds in the Western Hemisphere.

9. Were Japan to defeat China and Russia, and obtain control of Siam, Malaya and the Netherlands East Indies, it is probable that she likewise would endeavor to establish peace for the purpose of organizing the "East Asia Co-Prosperity Sphere". Almost inevitably the Philippine Islands would ultimately pass under Japanese hegemony.

10. It is believed that the overthrow of the Nazi regime by action of the people of Germany is unlikely in the near future, and will not occur until Germany is upon the point of military defeat. Even were a new regime to be established, it is not at all certain that such a regime would agree to peace terms acceptable to the United States.

11. Assuming the truth of the views expressed in the preceding paragraph, it is the opinion of the Joint Board that Germany and her European satellites can not be defeated by the European Powers now fighting against her. Therefore, if our European enemies are to be defeated, it will be necessary for the United States to enter the war, and to employ a part of its armed forces offensively in the Eastern Atlantic and in Europe or Africa.

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II. MAJOR MILITARY POLICY.(Cont'd)

12. The Joint Board also holds the view that, if, under present circumstances, Japan should advance against the British in Malaya and against the Dutch in the Netherlands East Indies, British and Dutch forces probably could not successfully withstand such an advance in the absence of active military assistance by the United States. The result of an attack by Japan on the Eastern Siberian Soviet Republic cannot now be predicted.

13. In view of the preceding considerations, the Joint Board recommends that the over-all production and material objective of the United States be designed to meet United States needs while engaged simultaneously in war against Germany and Japan, under either of the following sets of circumstances:

- a. While associated as a belligerent with the British Commonwealth, the Netherlands East Indies, Russia, and China.
- b. While associated as a belligerent with Canada and some of the Latin American countries, other belligerent Powers having been defeated by Germany and Japan.

14. Due to inadequate industrial capacity and material resources, friendly Powers must look to the United States for a large part of the munitions and other materials which they will require for success. The munitions and other materials which may be produced or controlled by the United States should be divided between itself and friendly Powers in such a manner as to effectuate the success of the military strategy adopted by the United States as best calculated to defeat our common enemies.

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III. PROBABLE CHARACTER OF THE ENEMY'S MAJOR STRATEGY:

(A) GERMAN STRATEGY:

15. For Germany, the objective of the current phase of the war is the complete military and political domination of Europe, and probably of North and West Africa. If Germany is successful she may then seek a period of peaceful refreshment, during which she can reorganize Europe and prepare for further adventures. However, the possibility can not be dismissed that Germany might seek at once to continue into India, South Africa, or South America.

16. Germany's present major strategic objectives, and the means by which she seeks to attain them, seem to be some or all of the following:

- a. The conquest of European Russia, the destruction of the Russian Armies, and the overthrow of the Soviet regime. This is a task for the German army and air forces, and will doubtless absorb most of the energy available to these contingents for some months to come. Final success in this aim is still in the balance.
- b. The destruction of the power of resistance of the United Kingdom, through accelerated attrition of shipping, and continued bombing of British facilities. The forces employed will be surface raiders, submarines, and aircraft in the northwestern approaches and down through the Middle Atlantic, operating from bases in Norway, France, Portugal, and French West Africa; and merchant-type raiders distributed throughout all oceans. Invasion of England may possibly not be attempted unless these other measures fail.
- c. The conquest of Egypt, Syria, Iraq, and Iran. This may be the region in which the next major German offensive will be undertaken. Large land and air forces must be employed, both German and Italian, aided by Italian naval forces in the Eastern Mediterranean and

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III. PROBABLE CHARACTER OF THE ENEMY'S MAJOR STRATEGY:
(A) GERMAN STRATEGY: 16. c. (Cont'd)

the Black Sea. Success may depend upon whether or not a large concentration of British and Russian defensive forces are available, and upon the continued military capacity of Italy, now an uncertain quantity.

- d. The occupation of Spain, Portugal, Morocco, French West Africa, Senegal, and the Atlantic Islands, for the purpose of strengthening the German offensive against British shipping, and for denying these positions to Germany's enemies. Considerable land, air, and naval forces will be required for this offensive, though not so great as would be required for conquest of the lands to the eastward of the Mediterranean.

17. In and near her own home territory, Germany can exert her full effort. As her forces move away from the home base, the effort that can be exerted at the point of military contact becomes reduced in proportion to the length and security of the lines of communication, and to the difficulties of transportation. Germany is experiencing these difficulties in Russia; she would experience them in an even greater degree in an offensive in the regions to the east of the Mediterranean; while the problem of the support of strong forces in Morocco, French West Africa, Senegal, and the Azores would be very great indeed. In the eastern part of European Russia, in Egypt, Irak, Iran, and North and West Africa, the effort that German military forces can exert is only a fraction of what they have been able to put forth in France, the Balkans, and Poland. Severe German defeats in these regions might readily affect the stability of the Nazi regime. This significant possibility should be taken into account in the development of the strategy of the Associated Powers.

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III. PROBABLE CHARACTER OF THE ENEMY'S MAJOR STRATEGY:
(Cont'd)

(B) JAPANESE STRATEGY:

18. The Japanese objective is the establishment of the "East Asia Co-Prosperity Sphere". It is Japan's ambition ultimately to include within this Sphere Eastern Siberia, Eastern China, Indo-China, Thai, Malaya, the Netherlands East Indies, the Philippines, and possibly Burma. The accomplishment of this objective is a heavy task for Japan's strength, a fact well realized by the Japanese.

19. Dependent upon results in Europe, Japan's strategic moves might be as follows:

- a. Building up and maintaining an effective screen in the Japanese Mandate Islands by the employment of minor naval forces and considerable air forces, supported by the COMBINED FLEET. This activity would include submarine and raider action against United States naval forces and United States and British lines of communication in the Central and Eastern Pacific Ocean.
- b. The conquest of Eastern Siberia by means of land and air operations covered by the COMBINED FLEET operating to the eastward of Japan.
- c. The conquest of Thai, Malaya, the Netherlands East Indies, and the Philippines. Success will require strong air forces, a considerable strength of light naval forces, and rather large land forces. It is unlikely that Japan will simultaneously attempt a major effort to the Northward and to the Southward, because of her lack of equipment and raw materials.

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III. PROBABLE CHARACTER OF THE ENEMY'S MAJOR STRATEGY:
(B) JAPANESE STRATEGY: (19 - Cont'd)

- d. An offensive from Northern Indo-China against Yunnan for the purpose of cutting the Burma Road and eliminating further resistance of the Chinese Nationalist army. This move might be supplemented by an attack on Burma. Considerable land and air forces would be required, as well as a large amount of shipping to provide the necessary support.

20. All of these prospective Japanese moves would be made at great distances from Japan. If Japan encounters stubborn and protracted resistance, her ability to continue offensives at these distances is problematical, owing to a lack of adequate resources and industrial facilities. Marked weakness or lack of cohesion on the part of her opponents might permit Japan to accomplish any one of these objectives within the next few months.

IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS
ASSOCIATES.

21. The Joint Board is convinced that the first major objective of the United States and its Associates ought to be the complete military defeat of Germany. If Germany were defeated, her entire European system would collapse, and it is probable that Japan could be forced to give up much of her territorial gains, unless she had already firmly established herself in such strength that the United States and its Associates could not afford the energy to continue the war against her.

22. An inconclusive peace between Germany and her present active military enemies would be likely to give Germany an opportunity to reorganize continental Europe and to replenish her strength. Even though the British Commonwealth and Russia were completely defeated, there would be important reasons for the United States to continue the war against Germany, in spite of the greatly increased difficulty of attaining final victory. From this it follows that

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS ASSOCIATES.
22. (Cont'd)

the principal strategic method employed by the United States in the immediate future should be the material support of present military operations against Germany, and their reinforcement by active participation in the war by the United States, while holding Japan in check pending future developments. Necessarily, only small Army contingents are now sufficiently equipped and trained for immediate participation in offensive operations.

23. Except in the case of Russia, the principal strength of the Associated Powers is in naval and air categories. Naval and air power may prevent wars from being lost, and by weakening enemy strength may greatly contribute to victory. By themselves, however, naval and air forces seldom, if ever, win important wars. It should be recognized as an almost invariable rule that only land armies can finally win wars.

24. It is out of the question to expect the United States and its Associates to undertake in the near future a sustained and successful land offensive against the center of the German power. It being obvious that the Associated Powers can not defeat Germany by defensive operations, effective strategic offensive methods other than an early land offensive in Europe must be employed. These methods may be found in a continuation of the economic blockade; the prosecution of land offensives in distant regions where German troops can exert only a fraction of their total strength; air and sea offensives against German military, economic and industrial resources; and the support of subversive activities in the conquered territories. Strategic methods to be employed against Japan (assuming her in the war) should be a strong defense of Siberia and Malaysia; an economic offensive through blockade; a reduction of Japanese military power by raids; and Chinese offensives against the Japanese forces of occupation.

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS ASSOCIATES.
(Cont'd).

25. The major strategic objectives which it is believed the United States and the Associated Powers should adopt are indicated below, as well as the means for attaining them. The material assistance to be supplied friendly Powers (where mentioned in the succeeding subparagraphs), should be consistent with the needs of the United States.

- a. The security of the Western Hemisphere against the extension into it of European or Asiatic political or military power is an essential of United States strategy. To provide this security under all eventualities, the United States must have naval, land, and air forces in such positions that they can be made promptly available in both the Atlantic and the Pacific Oceans in strengths adequate for preventing invasion should the British Isles and Russia collapse. In this connection, an important question is whether or not Northwestern Africa and the Atlantic Islands are in German or friendly hands. Similarly, Alaska, Hawaii, and the Islands of the South Pacific Ocean have an important relation to the security of the Eastern Pacific. United States naval strength, built up in accordance with the approved program, should be adequate for defensive needs until 1944. However, if Germany is successful in Europe, and Japan is successful in the Far East, naval strength for defensive purposes must be increased, even in excess of the present approved naval program. United States land and air forces may be required for the defense of the Western Hemisphere within the next few years, and it is necessary for Latin American countries to be provided with munitions and manufactured articles.

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS ASSOCIATES.
(Cont'd) 25.

- b. The security of the United Kingdom is essential to the prosecution in the Eastern Hemisphere of military operations against Germany and Japan. Its safety is also highly important to the defense of the Western Hemisphere. The security of the United Kingdom depends on an effective defense by sea, land, and air forces. In turn, this defense depends upon the safety of sea communications. The sea communications can continue to support the United Kingdom only if the damage now being inflicted upon them is greatly reduced through increases in the strength of the protective sea and air forces based in the British Islands, Iceland, and positions in the central and eastern Atlantic. Unless the losses of British merchant ships are greatly reduced, or unless there is an internal collapse of Germany, it is the opinion of the Joint Board that the resistance of the United Kingdom can not continue indefinitely, no matter what industrial effort is put forth by the United States. Therefore, the immediate and strong reinforcement of British forces in the Atlantic by United States naval and air contingents, supplemented by a large additional shipping tonnage, will be required if the United Kingdom is to remain in the war. These contingents must be manned by Americans, since the reserves of British manpower for employment in Europe are practically exhausted. To maintain present British strength, the United States must also continue to supplement the British blockade, and the naval building and repair potential; and to provide considerable numbers of aircraft.
- c. Safety of the sea communications of the Associated Powers throughout the world is essential to the continuance of their war effort. Naval and air

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS
ASSOCIATES. 25. c. (Cont'd)

forces employed in and near Europe should, so far as practicable, be strong enough to prevent the escape of surface raiders to the open sea, and to defeat submarine and air raiders. In addition, a widespread distribution of naval and air forces for direct protection of shipping foci and shipping routes will be required.

d. The enforcement of economic blockade is, for the time being, likely to be the most effective offensive method for use against Germany and Japan. Naval and air forces must be maintained to close all avenues of sea approach to Germany. The continued existence of hostile land fronts in Russia and in the Middle East is necessary if this blockade is to be maintained. In addition, diplomatic, economic, and financial measures should be employed for increasing the effectiveness of the military blockade.

e. The retention by the British of the control of the Red Sea, Irak, and Iran is necessary for preserving opportunities for decisive land action against Germany. Of great importance are effective land and air forces of all categories; large numbers of merchant vessels for their support; and adequate naval forces for the protection of communications leading to the Persian Gulf and the Red Sea. These forces can not be fully supported by the material means available to Britain. The United States should undertake to provide a part of the munitions and raw materials required by these troops, and should supply much of the merchant shipping for their transport.

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS
ASSOCIATES. 25. (Cont'd)

- f. The maintenance of an active front in Russia offers by far the best opportunity for a successful land offensive against Germany, because only Russia possesses adequate manpower, situated in favorable proximity to the center of German military power. For Russia, ground and aviation forces are most important. Predictions as to the result of the present conflict in Russia are premature. However, were the Soviet forces to be driven even beyond the Ural Mountains, and were they there to continue an organized resistance, there would always remain the hope of a final and complete defeat of Germany by land operations. The effective arming of Russian forces, both by the supply of munitions from the outside and by providing industrial capacity in the Volga Basin, or to the east of the Ural Mountains, would be one of the most important moves that could be made by the Associated Powers.
- g. Prevention of Axis penetration into Northwest Africa and the Atlantic Islands is very important, not only as a contribution to the defense of the Western Hemisphere, but also as security to British sea communications and as a potential base for a future land offensive. In French North and West Africa, French troops exist which are potential enemies of Germany, provided they are re-equipped and satisfactory political conditions are established by the United States. Because the British Commonwealth has but few troops available and because of the unfriendly relations between the British and the Veygand regime, it seems clear that a large proportion of the troops of the Associated Powers employed in this region necessarily must be United States troops.

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS
ASSOCIATES. 25. (Cont'd)

- h. Retention by the United States and its Associates of the Philippines, Malaya, the Netherlands East Indies, Australasia, Burma, and China would have far-reaching effects. The armed forces of the United States can not be greatly increased in the Far East if they are to discharge their heavy tasks in other regions, but the operations of the Pacific Fleet will have an important influence on events. The United States should undertake to provide a part of the munitions and aircraft to China and the Netherlands East Indies. A large part of this material must be transported in United States bottoms.
- i. Retention of Eastern Siberia by Russia is necessary if Japan is to be checked. Only material assistance can be provided by the United States to Siberia. No materials can be sent to Siberia by water when Japan is at war with Russia, but deliveries of aircraft could continue by air.

26. The following principles have been taken into consideration in arriving at recommendations concerning the strengths of the armed forces which the United States should undertake to raise or support, in whole or in part:

- a. The Navy considers that, since the principal strength of the Associated Powers is at present in naval and air categories, the strategy which they should adopt should be based on the effective employment of these forces, and the employment of land forces in regions where Germany can not exert the full power of her land armies. The Army believes that the foregoing strategy may not accomplish the defeat of Germany and that it may be necessary to come to grips with the German armies on the continent of Europe. Consequently, the Army feels that the equipment for the land armies necessary to meet this contingency should be provided as a part of the over-all production requirements.

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS ASSOCIATES. 26. (Cont'd)

- b. Past experience of the United States and other Powers should condition estimates of the capability of the United States to support a war effort, with due regard to differences in over-all industrial capacity; differences in availability of materials; and an appropriate balance between the man-power to be employed in the armed forces, and the man-power to be employed in industry and essential civilian services. Because of the present high degree of mechanization, a greater proportion of man-power must be allocated to industry for the manufacture of equipment and munitions than was the case in former wars.
- c. The sound use of diplomatic, economic, financial, and propaganda weapons, will serve to reduce the magnitude of the direct military effort.
- d. The burdens of the war effort, even though continued by the United States over a long period of time, should be so adjusted as to maintain the morale and the will to fight of the civilian population.

27. In Appendix I the Chief of Naval Operations presents his estimates of the over-all production required from the United States, by the dates indicated. These estimates pertain to the United States and foreign navies, and to the United States and foreign merchant marine fleets. The proposed size of the U.S. Navy is the so-called "Two-Ocean" Navy as approved by the President and Congress, plus a total tonnage increase of 21 per cent, plus the aircraft required for the indicated increase in aircraft-carrying naval vessels. The additional naval vessels recommended for the United States can be constructed without any increase in existing or approved ship-building and manufacturing facilities.

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IV. MAJOR STRATEGY OF THE UNITED STATES AND ITS
ASSOCIATES. (Cont'd)

28. In Appendix II the Chief of Staff presents estimated requirements for the United States and foreign armies, including aviation for forces other than United States naval aviation. The Chief of Staff believes that the equipment set up in the Army program should be assembled, if practicable from the viewpoint of industry, against the possible necessity of an all-out effort against Germany and her allies. The position of the Chief of Staff is that the maximum requirements of the Navy and Army, as related to tonnage and the probable conflicts in material, priority and production facilities, should be surveyed by OPM and then if necessary readjusted by the Joint Board within the limits determined by OPM.

George C. Marshall,
General, U.S. Army,
Chief of Staff.

H. R. Stark,
Admiral, U.S. Navy,
Chief of Naval
Operations.

WPD 4494

J.B. No. 355
(Serial 707)

S E C R E T

JOINT BOARD ESTIMATE OF
UNITED STATES OVER-ALL PRODUCTION
REQUIREMENTS

September 11, 1941

I N D E X

Joint Board Estimate of United States Over-All Production Requirements - Report.

Appendix I. Navy Requirements — Decision on Production Requirements for Major Categories of Materials Recommended by the Navy.

Appendix II. Army Requirements:

Part I. Brief of Strategic Concept of Operations Required to Defeat our Potential Enemies (Tabulated Chart).

Part II. Ultimate Requirements — Ground Forces:

Section I. Chart — Distribution and Employment.

Section II. Supporting Study.

Part III. Ultimate Requirements — Air Forces.

Section I. Brief and Graphic Presentation:

Chart No. 1. Tabulated Brief — Munitions Requirements of the Army Air Forces.

Chart No. 2. Air Offensive Against Germany.

Chart No. 3. Air Operations Other Than Those Directed Against Germany Proper.

Section II. Supporting Study: Tabs 1 to 17 (Incl.)

Part IV. Production Requirements — Army Estimate of U. S. Needs and those of Foreign Nations — Critical Items only (Ground and Air) - 20 Charts:

Engineer Equipment.....	2	charts
Ordnance Equipment.....	8	"
Quartermaster - Motor Transportation....	1	"
Quartermaster - Clothing & Equipment....	2	"
Signal Corps Equipment (Air Corps).....	1	"
Signal Corps Equipment (Ground Forces)..	2	"
Air Corps Supplies (For Arms & Services		
Other than Air Corps).....	1	"
Medical Equipment.....	1	"
Chemical Warfare Service.....	1	"
Requirements for planes.....	1	"

DECISION ON PRODUCTION REQUIREMENTS FOR MAJOR CATEGORIES OF
MATERIALS RECOMMENDED BY THE NAVY

(A) NAVY PROGRAM, for completion by December 31, 1946.

1. U.S. Navy, including aviation. Provide naval forces and facilities for the United States capable of executing strong naval offensives in the Eastern Atlantic and the Central and Western Pacific Oceans. Major items of this program are:

- a. Naval Personnel, including that required for manning merchant auxiliary tonnage 1,100,000
- b. Marine Corps Personnel 150,000
- c. Naval vessels -

<u>Type</u>	<u>Built</u>	<u>Building</u>	<u>Additional Required</u>	<u>Total</u>
BB	15	17	0	32
CV	6	12	6	24
CB	0	6	4	10
CA	18	8	0	26
CL	19	40	16	75
DD	170	194	80	444
SS	112	72	54	238
Auxiliaries, - large	183	95	100	378
Naval Coastal Frontier Forces	236	493	600	1329
Naval District Utility Craft	491	102	500	1093

Note: Additional auxiliary tonnage is included for estimate purposes in subparagraph (D) "Merchant Shipping Program".

DECISION ON PRODUCTION REQUIREMENTS FOR MAJOR CATEGORIES OF
MATERIALS RECOMMENDED BY THE NAVY.

(A) 1. (Cmt'd)d. Schedule of Naval Ship Deliveries.

Deliveries of large combatant naval vessels now under construction, authorized and proposed should be planned in accordance with this table:

	Jul-Dec					
	1941	1942	1943	1944	1945	1946
BB - Battleships	2	3	3	2	3	4
CV - Carriers	1	-	-	6	5	6
CB - Large Cruisers	-	-	-	-	6	4
CA - Heavy Cruisers	-	-	3	1	4	-
CL - Light Cruisers	1	7	14	17	8	9
DD - Destroyers	9	55	100	99	13	-
SS - Submarines	2	26	31	36	31	2

e. Naval Aircraft.

	<u>Four Engined</u>	<u>Twin Engined</u>	<u>Single Engined</u>	<u>Total</u>
Combatant aircraft assigned to tactical units	294	862	7,558	8,714
Combatant aircraft assigned as reserves and spares	147	431	7,558	8,136
Total Combatant Aircraft	441	1,293	15,116	16,850
Training, Administrative and Miscellaneous	24	382	3,812	4,218
Total	465	1,675	18,928	21,068
Annual Replacement	600	1,400	16,500	18,000

Note: Overall replacement requirements, during war operations, and including active and inactive theaters, are estimated at approximately 100 per cent per year for combatant aircraft, and 40 per cent per year for all others.

DECISION ON PRODUCTION REQUIREMENTS FOR MAJOR CATEGORIES OF MATERIALS RECOMMENDED BY THE NAVY.

(A) 1. (Cont'd)

f. Naval Shore Establishment.

See Appendix I and Appendix II for the permanent naval shore establishment program. To these total requirements should be added temporary overseas naval base constructions equivalent to 25% of the authorized permanent overseas construction. Emergency shipbuilding and manufacturing equivalents are to be computed under subparagraphs d, e, and g.

g. Naval Munitions Requirements for naval ships, aircraft and bases.

h. Marine Corps Munitions Requirements.

2. Foreign Navies. Provide Naval forces and facilities for Associated Powers as follows:

a. 300,000 tons of naval combatant vessels for the British Commonwealth.

b. 200,000 tons of naval combatant vessels for Latin-American countries.

c. Temporary facilities in the United States for the repair of 25% of British naval combatant vessels.

(B) ARMY PROGRAM, excluding aviation.

No estimates under this heading are submitted by the Navy.

(C) AVIATION PROGRAM, excluding U.S. Naval Aviation.

No estimates under this heading are submitted by the Navy.

NAVY DEPARTMENT

FUNDAMENTAL REQUIREMENTS OF THE NAVAL SHORE ESTABLISHMENTS

—ATLANTIC AREA—

APPROVED MAY 14, 1941
Franklin D. Roosevelt
 SECRETARY OF THE NAVY

RESTRICTED

AREAS	BASES	CLASS 1		2	3	4		5	6	7	8			
		SHIPBUILDING AND SHIP REPAIR		FLEET	AERONAUTIC	STORAGE		MARINE CORPS	ORDNANCE	PERSONNEL	HOSPITAL			
		TOTAL NAVY YARD SHIPBUILDING LOAD NOT TO EXCEED 20% OF TOTAL INDUSTRIAL CAPACITY OF CONTINENTAL YARDS		COMMERCIAL	PROTECTED ANCHORAGES AND SERVICES	COMPLETE FACILITIES THOSE NEEDED FOR PERMANENT USE WITHOUT TENDER SUPPORT	SUPPLY	FUEL EXCLUDING GASOLINE				IN ADDITION TO FACILITIES SHOWN BELOW, 3 MOBILE BASE HOSPITAL UNITS ARE REQUIRED TO SUPPLEMENT FLEET FACILITIES IN OUTLYING BASES (ATLANTIC & PACIFIC) AND FOR EMERGENCY.		
		DOCKING	REPAIR			EMERGENCY FACILITIES THOSE NEEDED FOR OCCASIONAL OR EMERGENCY USE, OR FOR SQUADRONS PARTIALLY SUPPORTED BY PARENT SHIPS OR BY THEIR HOME BASES.								
EXISTING-FINANCED	ADDITIONAL	IN ADDITION TO FACILITIES REQUIRED FOR SHIPBUILDING												
BB I = 35,000 TONS, BB II = 45,000 TONS, BB III = MAX. TYPE, MR = MARINE RAILWAY														
EMERGENCY = CAPACITY REPAIR MAXIMUM SHIP DOCKABLE, EXCLUDING EXTRAORDINARY TURRET, ARMOR, OR MACHINERY DAMAGE.														
SUSTAINED = CAPACITY FOR FULL OVERHAUL & DAMAGE														
INTERIM = CAPACITY FOR UPKEEP BETWEEN NORMAL OVERHAULS.														
NORTH ATLANTIC	NEW YORK-NEW ENGLAND HOME MAIN BASE NAVAL DISTRICTS 1 AND 3	NAVY YARD PORTSMOUTH 1 DL (TWH) 1 CA		NOW ADEQUATE	40% OF THE FLEET BASE FOR 24 SS	COMPLETE 96 VPB 36 VSO 2 CV GROUPS EMERGENCY 12 VPB	HANDLING AND DELIVERY FACILITIES TO SUSTAIN 40% OF THE FLEET, INCLUDING A NAVAL SUPPLY DEPOT LOCAL FORCES-3 MONTHS	1,760,000 BBLs. (AT LEAST HALF OF WHICH SHOULD BE IN THE NARRAGANSETT AREA)	BASE GUARD DETACHMENTS	▲ HANDLING AND DELIVERY FACILITIES TO SUSTAIN 40% OF THE FLEET	BASE PLUS RECEIVING SHIP FOR 3000 MEN	HOSPITAL 2420 1160 BEDS		
		NAVY YARD BOSTON 1 BB III 1 CA 1 DD 1 DU MR												
		NAVY YARD NEW YORK 2 BB III Bldg 1 BB III 1 BB I 1 CA 1 DL 1 DD												
		SUBMARINE BASE NEW LONDON 1 DL MR												
	NEWFOUNDLAND OUTLYING LIGHT FORCE & AIR BASE	1 CL 575' SHIP (BRITISH OWNED)			TENDERS AND LIGHT FORCES	COMPLETE 24 VPB 1 CV GROUP EMERGENCY 12 VPB	LOCAL FORCES-3 MONTHS	110,000 BBLs.	BASE GUARD DETACHMENT	3 TIMES ▲ 2 TIMES ▼	BASE	DISPENSARY 50 BEDS		
MIDDLE ATLANTIC	DELAWARE-CHESAPEAKE-CHA'STON HOME MAIN BASE NAVAL DISTRICTS 4-5 & 6	NAVY YARD PHILADELPHIA 1 BB II 2 BB II Bldg 1 CA 1 DL 1 DL MR		NOW ADEQUATE	60% OF THE FLEET	COMPLETE 108 VPB 12 VSO 4 CV GROUPS 30 VJ 18 MARINE SQUADRONS EMERGENCY 1 CV GROUP 6 MARINE SQUADRONS	HANDLING AND DELIVERY FACILITIES TO SUSTAIN 60% OF THE FLEET, INCLUDING A NAVAL SUPPLY DEPOT LOCAL FORCES-3 MONTHS	3,000,000 BBLs.	BASE GUARD DETACHMENTS FACILITIES 1 DIV FMF AND 2 DEFENSE BATS. DEPOT FACILITIES FOR 3 MONTHS SUPPLY-ATLANTIC AREAS RECRUIT DEPOT SCHOOLS	▲ HANDLING AND DELIVERY FACILITIES TO SUSTAIN 60% OF THE FLEET AMMUNITION FOR 1 DIVISION FMF	BASE PLUS RECEIVING SHIP FOR 4500 MEN	HOSPITAL 2600 1900 BEDS		
		NAVY YARD NORFOLK 1 BB III 1 BB II 1 CA 2 DL 2 DD												
		NAVY YARD CHARLESTON 1 CA 1 DL (TWH)												
	BERMUDA OUTLYING LIGHT FORCE & AIR BASE	1 CL FL 1800 TON (BRITISH OWNED)			MAJOR GROUPS LIGHT FORCES	COMPLETE 24 VPB EMERGENCY 12 VPB 1 CV GROUP	LOCAL FORCES-3 MONTHS	110,000 BBLs.	BASE GUARD DETACHMENT	▲ 2 TIMES ▼	BASE	DISPENSARY 30 BEDS		
SOUTH ATLANTIC	AIR AND SECONDARY BASES NAVAL DISTRICT 7	1 DL MR (KEY WEST)			LIMITED BASE FACILITIES FOR 1 DIV SS AND 1 DIV DD ENGAGED IN SOUND SCHOOL ACTIVITIES	COMPLETE 96 VPB 12 VSO 2 CV GROUPS EMERGENCY 24 VPB	LOCAL FORCES-3 MONTHS	LOCAL FORCES-3 MONTHS	BASE GUARD DETACHMENTS	▲ ▼	BASE	HOSPITAL 642 BEDS		
GULF	AIR AND SECONDARY BASES NAVAL DISTRICT 8			NOW DEFICIENT FIRST PRIORITY FOR DEVELOPMENT	LOCAL FORCES	NONE EXCEPT AT TRAINING CENTERS	HANDLING AND DELIVERY FACILITIES TO SUSTAIN 10% OF THE FLEET LOCAL FORCES-3 MONTHS	LOCAL FORCES-3 MONTHS	BASE GUARD DETACHMENTS	▲ ▼	BASE	HOSPITAL 420 BEDS		
CARIBBEAN	GUANTANAMO AREA	GUANTANAMO-JAMAICA OUTLYING SUBSIDIARY OPERATING BASE			EMERGENCY-LIGHT FORCES INTERIM-LOCAL FORCES	60% OF THE FLEET	COMPLETE 24 VPB, 12 VSO 1 CV GRP, 30 VJ EMERGENCY 72 VPB, 1 CV GRP	LOCAL FORCES-3 MONTHS	GUANTANAMO 450,000 BBLs.	BASE GUARD DETACHMENTS 1 DEFENSE BAT. CAMP SITE FOR 1 REINFORCED INF REGT DEPOT FACILITIES	2 ▲ PLUS ▼ FOR MAYAGUANA	BASE	GUANTANAMO HOSPITAL 120 BEDS JAMAICA DISPENSARY 10 BEDS	
		BAHAMAS SECONDARY AIR BASE				AVP	EMERGENCY 12 VPB	LOCAL FORCES-3 MONTHS	LOCAL FORCES-3 MONTHS	BASE GUARD DETACHMENT		BASE		
	PUERTO RICO AREA	PUERTO RICO-VIRGIN ISLANDS OUTLYING MAIN OPERATING BASE-NAVAL DISTRICT 10.		1 CA 1 BB III	(FOR ENTIRE CARIBBEAN AREA)	EMERGENCY-ALL CLASSES SUSTAINED-LOCAL FORCES	60% OF THE FLEET BASE FOR 12 SS	COMPLETE 72 VPB, 24 VSO, 3 CV GRP, 30 VJ, 1 MARINE SQUADRONS EMERGENCY 6 VPB	CAPACITY EQUIVALENT TO ONE AF AND ONE AK	700,000 BBLs.	BASE GUARD DETACHMENTS CAMP SITE, TRAINING & DEPOT FACILITIES FOR 1 DIVISION FMF	4 ▲ PLUS ▼ FOR ANTIGUA 1 ▲ PLUS ▼ FOR ST. LUCIA 1 ▲ PLUS ▼ FOR BRITISH GUIANA	BASE PLUS RECEIVING SHIP FOR 500 MEN	HOSPITAL 460 BEDS
		ANTIGUA SECONDARY AIR BASE					AVP - DDs	EMERGENCY 12 VPB	LOCAL FORCES-3 MONTHS	LOCAL FORCES-3 MONTHS	BASE GUARD DETACHMENT		BASE	DISPENSARY 10 BEDS
	TRINIDAD AREA	TRINIDAD OUTLYING SUBSIDIARY OPERATING BASE		1 CA FL 1 DL FL		EMERGENCY-LIGHT FORCES INTERIM-LOCAL FORCES	60% OF THE FLEET	COMPLETE 24 VPB, 12 VSO EMERGENCY 24 VPB 2 CV GROUPS	LOCAL FORCES-3 MONTHS	110,000 BBLs.	BASE GUARD DETACHMENT CAMP SITE (UNDEVELOPED EXCEPT FOR WATER) FOR 1 DIV FMF	2 ▲ PLUS ▼ FOR ST. LUCIA PLUS ▼ FOR BRITISH GUIANA	BASE	HOSPITAL 150 BEDS
		ST. LUCIA SECONDARY AIR BASE					AVP - DDs	EMERGENCY 12 VPB	LOCAL FORCES-3 MONTHS	LOCAL FORCES-3 MONTHS	BASE GUARD DETACHMENT		BASE	DISPENSARY 10 BEDS
BRITISH GUIANA SECONDARY AIR BASE					AVP - DDs	EMERGENCY 12 VPB	LOCAL FORCES-3 MONTHS	LOCAL FORCES-3 MONTHS	BASE GUARD DETACHMENT		BASE	DISPENSARY 10 BEDS		

NAVY DEPARTMENT

FUNDAMENTAL REQUIREMENTS OF THE NAVAL SHORE ESTABLISHMENTS

—PACIFIC AREA—

RESTRICTED

APPROVED MAY 14, 1941.
W. D. Borden
 SECRETARY OF THE NAVY

AREAS	BASES	CLASS 1			2	3	4	5	6	7	8		
		SHIPBUILDING AND SHIP REPAIR			FLEET	AERONAUTIC	STORAGE		MARINE CORPS	ORDNANCE	PERSONNEL	HOSPITAL	
		TOTAL NAVY YARD SHIPBUILDING LOAD NOT TO EXCEED 20% OF TOTAL INDUSTRIAL CAPACITY OF CONTINENTAL YARDS			COMMERCIAL	PROTECTED ANCHORAGES AND SERVICES	COMPLETE FACILITIES THOSE NEEDED FOR PERMANENT USE WITHOUT TENDER SUPPORT	SUPPLY	FUEL		A=ONE MONTHS SUPPLY FOR LOCAL FORCES. B=ONE STANDARD BOMB ALLOWANCE PER PLANE		IN ADDITION TO FACILITIES SHOWN BELOW, 3 MOBILE BASE HOSPITAL UNITS ARE REQUIRED TO SUPPLEMENT FLEET FACILITIES IN OUTLYING BASES (ATLANTIC AND PACIFIC) AND FOR EMERGENCY
		DOCKING	REPAIR	IN ADDITION TO FACILITIES REQUIRED FOR SHIPBUILDING			EMERGENCY FACILITIES THOSE NEEDED FOR OCCASIONAL OR EMERGENCY USE OR FOR SQUADRONS PARTIALLY SUPPORTED BY PARENT SHIPS OR BY THEIR HOME BASES	EXCLUDING GASOLINE		BOMB STORAGE TO BE IN GENERAL AREA, INCLUDES STORAGE AT EACH STATION FOR TWO LOADS PER PLANE FOR EACH PLANE NORMALLY BASED THERE.			
EXISTING-FINANCED	ADDITIONAL												
BB I = 36,000 TONS, BB II = 45,000 TONS, BB III = MAX. TYPE, MR = MARINE RAILWAY													
EMERGENCY = CAPACITY REPAIR MAXIMUM SHIP DOCKABLE, EXCLUDING EXTRA ORDINARY TURRET, ARMOR, OR MACHINERY DAMAGE.													
SUSTAINED = CAPACITY FOR FULL OVERHAUL & DAMAGE INTERIM = CAPACITY FOR UPKEEP BETWEEN NORMAL OVERHAULS.													
NORTH PACIFIC	PUGET SOUND HOME MAIN BASE NAVAL DISTRICT 13	NAVY YARD BREMERTON			NOW DEFICIENT FOURTH PRIORITY FOR DEVELOPMENT	20% OF THE FLEET	COMPLETE 84 VPB 24 VSO 2 CV GROUPS EMERGENCY 24 VPB	HANDLING AND DELIVERY FACILITIES TO SUSTAIN 40% OF THE FLEET, INCLUDING A NAVAL SUPPLY DEPOT LOCAL FORCES - 3 MONTHS	1,250,000 BBLs.	BASE GUARD DETACHMENTS	MINIMUM STORAGE IN GENERAL AREA EQUIVALENT TO 2 A, PLUS 2 B FOR KODIAK, DUTCH HARBOR & SITKA HANDLING AND DELIVERY FACILITIES TO SUSTAIN 40% OF THE FLEET	BASE PLUS RECEIVING SHIP FOR 1000 MEN	HOSPITAL 625 BEDS
	KODIAK SUBMARINE & SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	COMPLETE 48 VPB EMERGENCY 4 MARINE SQUADRONS	LOCAL FORCES - 6 MONTHS	220,000 BBLs.	BASE GUARD DETACHMENT	3 TIMES A 4 B 2 B FOR UNALASKA	BASE	DISPENSARY 150 BEDS	
	UNALASKA SUBMARINE & SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	COMPLETE 24 VPB	LOCAL FORCES - 6 MONTHS	110,000 BBLs.	BASE GUARD DETACHMENT	A 2 B	BASE	DISPENSARY 75 BEDS	
	SITKA SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	COMPLETE 24 VPB (OR VSO)	LOCAL FORCES - 6 MONTHS	110,000 BBLs.	BASE GUARD DETACHMENT	A 2 B	BASE	DISPENSARY 50 BEDS	
EAST PACIFIC	SAN FRANCISCO HOME MAIN BASE NAVAL DISTRICT 12	NAVY YARD MARE ISLAND			NOW DEFICIENT THIRD PRIORITY FOR DEVELOPMENT	60% OF THE FLEET	COMPLETE 4 MARINE SQDNS 73 VPB 24 VSO 2 CV GROUPS EMERGENCY 12 VPB	HANDLING AND DELIVERY FACILITIES TO SUSTAIN 60% OF THE FLEET, INCLUDING A NAVAL SUPPLY DEPOT LOCAL FORCES - 3 MONTHS	SUSTAINED SUPPLY OF 60% OF THE FLEET FROM COMMERCIAL SOURCES LOCAL FORCES - 2 MONTHS	BASE GUARD DETACHMENTS DEPOT FACILITIES WITH THOSE OF SAN DIEGO FOR 3 MONTHS SUPPLY PACIFIC AREAS	BASE PLUS RECEIVING SHIP FOR 4000 MEN	HOSPITAL 600 BEDS	
	SAN PEDRO - SAN DIEGO HOME MAIN TRAINING AREA NAVAL DISTRICT 11			20% OF REPAIR LOAD OF FLEET SUSTAINED	EMERGENCY	COMPLETE 73 VPB, 45 VJ, 5 CV GROUPS, 6 MARINE SQUADRONS PLUS 4 MAR SQDNS (OR 6 VSO SQUADRONS) EMERGENCY 12 VPB 1 CV GROUP	HANDLING AND DELIVERY FACILITIES TO SUSTAIN 15% OF THE FLEET, INCLUDING A NAVAL SUPPLY DEPOT LOCAL FORCES - 3 MONTHS	2 MONTHS REQUIREMENT FOR 20% OF THE FLEET AT SAN DIEGO. SUSTAINED SUPPLY OF 60% OF THE FLEET FROM COMMERCIAL SOURCES AT SAN PEDRO LOCAL FORCES - 2 MONTHS	BASE GUARD DETACHMENTS 1 DIV. FMF 2 DEFENSE BATS. DEPOT FACILITIES RECRUIT DEPOT	MINIMUM STORAGE IN GENERAL AREA EQUIVALENT TO 2 AMMUNITION FOR 1 DIVISION FMF	BASE	HOSPITAL 2500 BEDS	
CENTRAL AMERICAN	CANAL ZONE SUBSIDIARY OPERATING BASE NAVAL DISTRICT 15			EMERGENCY - ALL CLASSES SUSTAINED - LOCAL FORCES		40% OF THE FLEET	COMPLETE 85 VPB 24 VSO EMERGENCY 1 CV GROUP	CAPACITY EQUIVALENT TO 1 AF. PLUS LOCAL FORCES - 3 MONTHS	1,000,000 BBLs.	BASE GUARD DETACHMENTS	3 TIMES A 4 B	BASE	HOSPITAL 240 BEDS
	FONSECA - SECONDARY AIR BASE			EMERGENCY - ALL CLASSES SUSTAINED - LOCAL FORCES		40% OF THE FLEET	COMPLETE 85 VPB 24 VSO EMERGENCY 1 CV GROUP	CAPACITY EQUIVALENT TO 1 AF. PLUS LOCAL FORCES - 3 MONTHS	1,000,000 BBLs.	BASE GUARD DETACHMENTS	3 TIMES A 4 B	CARETAKERS	
MID PACIFIC	HAWAIIAN OUTLYING MAIN BASE NAVAL DISTRICT 14	NAVY YARD PEARL HARBOR			20% OF REPAIR LOAD OF FLEET SUSTAINED	60% OF THE FLEET	COMPLETE 132 VPB 24 VSO 4 CV GROUPS 30 VJ EMERGENCY 2 CV GROUPS	NAVAL SUPPLY DEPOT INCLUDING PROVISION CAPACITY EQUIVALENT TO 6 AF'S PLUS STORAGE CAPACITY LOCAL FORCES 3 MONTHS	4,423,000 BBLs.	BASE GUARD DETACHMENTS DEPOT FACILITIES FOR OUTLYING BASES	2 TIMES A A FOR EACH OTHER MID PACIFIC BASE 4 B MAGAZINE CAPACITY EQUAL TO 2 A, E	BASE PLUS RECEIVING SHIP FOR 1000 MEN	HOSPITAL 625 BEDS
	MIDWAY - OUTLYING SUBMARINE AND SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	COMPLETE 24 VPB, 12 VSO 4 MARINE SQDNS	LOCAL FORCES - 3 MONTHS	LOCAL FORCES - 3 MONTHS	1 DEFENSE BAT.	A 2 B	BASE	DISPENSARY 20 BEDS	
	WAKE - OUTLYING SUBMARINE AND SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	COMPLETE 12 VPB EMERGENCY 2 MARINE SQUADRONS	LOCAL FORCES - 3 MONTHS	LOCAL FORCES - 3 MONTHS	1 DEFENSE BAT.	A 2 B	BASE	DISPENSARY 20 BEDS	
	JOHNSTON ISLAND - OUTLYING SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	EMERGENCY 12 VPB	LOCAL FORCES - 3 MONTHS	LOCAL FORCES - 3 MONTHS	1/3 DEFENSE BAT.	A B	BASE	DISPENSARY 10 BEDS	
	PALMYRA ISLAND - OUTLYING SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	EMERGENCY 12 VPB	LOCAL FORCES - 3 MONTHS	LOCAL FORCES - 3 MONTHS	1/3 DEFENSE BAT.	A B	BASE	DISPENSARY 10 BEDS	
	CANTON ISLAND - OUTLYING SECONDARY AIR BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	EMERGENCY 12 VPB	LOCAL FORCES - 3 MONTHS	LOCAL FORCES - 3 MONTHS	1/3 DEFENSE BAT.	A B	BASE	DISPENSARY 10 BEDS	
	SAMOA OUTLYING SUBSIDIARY BASE			20% OF REPAIR LOAD OF FLEET SUSTAINED	INTERIM-LOCAL FORCES	COMPLETE 12 VSO, 2 MAR SQDNS EMERGENCY 2 MARINE SQUADRONS	LOCAL FORCES - 3 MONTHS	LOCAL FORCES - 3 MONTHS	1 DEFENSE BAT.	3 TIMES A 4 B	BASE	HOSPITAL FACILITIES 150 BEDS	
PHILIPPINE	MANILA BAY OUTLYING MAIN OPERATING BASE NAVAL DISTRICT 16	SHORE FACILITIES IN THE PHILIPPINE AND GUAM AREAS ARE EXCLUDED FROM THIS STUDY. THEY WILL BE DEVELOPED AS CIRCUMSTANCES MAY REQUIRE.											
	GUAM OUTLYING SUBSIDIARY OPERATING BASE												
	OUTLYING SECONDARY AIR AND LIGHT FORCE BASES												

DECISION ON PRODUCTION REQUIREMENTS FOR MAJOR CATEGORIES OF
MATERIALS RECOMMENDED BY THE NAVY.

(D) MERCHANT SHIPPING PROGRAM, for completion by December 31, 1944.

1. Increase United States merchant shipping to a continuing total of 18,000,000 gross tons, including 600,000 gross tons for the U.S. Navy, additional to the present program. This merchant fleet is to be manned by the United States.
2. Supply the British Commonwealth with merchant shipping of a total of 6,000,000 gross tons.

Note: An analysis of shipping requirements is as follows:

a.	For United States Industry and Latin-America, including sea-going and coastwise ships of over 1,000 gross tons	--	6,000,000	gross tons
b.	For support of U.S. Army forces in Europe, Africa, and South America, estimated at 1,500,000 troops	--	2,400,000	" "
c.	For transporting annually 12,000,000 tons of munitions for the support of Associated armed forces in Middle East, Russia and Asia, (estimated as the munitions requirements of 2,000,000 troops)	--	5,000,000	" "
d.	For support of population, industry and armed forces in United Kingdom, (annual delivery of 15,000,000 tons)--	--	4,000,000	" "
e.	For transports for U.S. Navy for support of overseas naval forces and U.S. Army overseas garrisons	--	<u>600,000</u>	" "
	Total required by 1944	--	18,000,000	" "
	Loss of U.S. Flag vessels expected by 1944	--	3,000,000	" "

DECISION ON PRODUCTION REQUIREMENTS FOR MAJOR CATEGORIES OF
MATERIALS RECOMMENDED BY THE NAVY.

(D) 2. (Cont'd)

- | | | | | |
|----|---|----------------------------|---|---|
| f. | Ships to be supplied to the
British Commonwealth by
1944 | -- 6,000,000 gross
tons | | |
| | Thus the total tonnage
that must be made avail-
able from United States
sources by the end of
1944 is | --27,000,000 | " | " |
| | Of this there is now
available | -- | | |
| g. | U.S. Shipping | -- 6,700,000 | " | " |
| h. | Present merchant ship
program due for completion
in 1943 | -- <u>10,700,000</u> | " | " |
| i. | Total estimated as avail-
able by 1943 | --17,400,000 | " | " |
| j. | <u>The additional program to
meet requirements, and
which should be built by
the end of 1944 is</u> | -- 9,600,000 | " | " |

Note: The Chairman of the Maritime Commission estimates this figure is the maximum that should be fixed for the United States shipbuilding industry.

(E) PROGRAM FOR CIVIL NEEDS OF THE UNITED STATES.

Fabricated, processed, and raw materials, required by the population of the United States for civil purposes. (Requirements for this need should be established by other than military agencies.)

(F) PROGRAM FOR CIVIL NEEDS OF FRIENDLY POWERS.

Fabricated, processed, and raw materials, required from the United States for the industrial and civil establishments of friendly Powers. Attention should be given to the importance of establishing

DECISION ON PRODUCTION REQUIREMENTS FOR MAJOR CATEGORIES OF
MATERIALS RECOMMENDED BY THE NAVY.(F) (Cont'd)

raw material and industrial production facilities outside of the United States, in regions where the following conditions exist:

1. Raw materials are available, or their production is readily possible.
2. Man-power is available for industrial employment.
3. Proximity to a hostile front, with ample man-power available for military employment. (Requirements for this need should be established by civil agencies, in consultation with military authorities).

ESTIMATE

ARMY REQUIREMENTS
SUPPORTING STUDY

prepared by:

WAR PLANS DIVISION
GENERAL STAFF

(SECTION II, PART II, APPENDIX II)

ULTIMATE REQUIREMENTS STUDY
ESTIMATE OF ARMY GROUND FORCES

1. The specific operations necessary to accomplish the defeat of the Axis Powers cannot be predicted at this time. Irrespective of the nature and scope of these operations, we must prepare to fight Germany by actually coming to grips with and defeating her ground forces and definitely breaking her will to combat. Such requirement establishes the necessity for powerful ground elements, flexibly organized into task forces which are equipped and trained to do their respective jobs. The Germans and their associates with between 11 and 12 million men under arms, now have approximately 300 divisions fully equipped and splendidly trained. It is estimated that they can have by 1943, a total of 400 divisions available in the European Theater.

2. The important influence of the air arm in modern combat has been irrefutably established. The degree of success attained by sea and ground forces will be determined by the effective and timely employment of air supporting units and the successful conduct of strategical missions. No major military operation in any theater will succeed without air superiority, or at least air superiority disputed. The necessity for a strong sea force, consisting principally of fast cruisers, destroyers, aircraft carriers, torpedo boats and submarines, continues in spite of the increased fighting potential of the air arm. Employment of enemy air units has not yet deprived naval vessels of their vital role on the high seas, but has greatly accelerated methods and changed the technique in their employment. It appears that the success of naval operations, assuming air support, will still be determined by sound strategic concepts and adroit leadership. A sea blockade will not accomplish an economic strangulation or

or military defeat of Germany. Nor will air operations alone bring victory. Air and sea forces will make important contributions but effective and adequate ground forces must be available to close with and destroy the enemy within his citadel.

3. It is therefore imperative that we create the productive capacity to provide equipment for the following:

a. Appropriate forces distributed for the defense of the United States, outlying possessions and bases selected to facilitate the defense of the country and the Western Hemisphere.

b. Task Forces which can effectively conduct military operations, primarily in the European Theater, as well as in the Western Hemisphere and in other strategically important areas.

c. The military forces of associates and friendly Powers committed to the policy of opposing Nazi aggression. Quantities to be limited only by our own strategic requirements and the ability of the friendly Powers to use the equipment effectively.

4. A sound approach to the problem of determining appropriate military means requires careful consideration of WHERE, HOW and WHEN, they will be employed to defeat our potential enemies and to assist our associates.

a. WHERE. Accepting the premise, that we must come to grips with the enemy ground forces, our principal theater of war is Central Europe. Possible subsidiary theaters include Africa, the Near East, the Iberian Peninsula, the Scandinavian Peninsula and the Far East; however, the operations in those theaters must be so conducted as to facilitate the decisive employment of Allied forces in Central Europe.

b. HOW. The combined and carefully coordinated operations of our military forces, in collaboration with associated Powers, must accomplish the following:

(1) The surface and subsurface vessels of the Axis and associated Powers must be swept from the seas, particularly in the Atlantic and water areas contiguous to Europe.

(2) Overwhelming air superiority must be accomplished.

(3) The economic and industrial life of Germany must be rendered ineffective through the continuous disruption and destruction of lines of communication, ports and industrial facilities, and by the interception of raw materials.

(4) The combat effectiveness of the German military forces must be greatly reduced by over-extension, dispersion, shortage of materiel, including fuel, and a deterioration of the Home Front. Popular support of the war effort, by the peoples of the Axis Powers must be weakened and their confidence shattered by subversive activities, propaganda, deprivation, the destruction wrought and chaos created.

(5) Existing military bases (the British Isles and the Near East) must be maintained. Additional bases, which encircle and close in on the Nazi citadel, must be established in order to facilitate air operations designed to shatter the German industrial and economic life. Such bases may also provide feasible points of departure for the combined operations of ground and air forces. In disposing of our forces, we must guard against dispersion of means in operations that do not make timely and effective contributions to the accomplishment of our main task, the defeat of Germany.

(6) The commitment of our forces must conform to our accepted broad strategic concept of active (offensive) operations in one theater (European), and concurrently, passive (defensive) operations in the other (Pacific).

d. WHEN. The following factors with regard to the time element are important in determining the production capacity necessary to realize our national objectives:

(1) The lag between plan and execution is considerable. Past experience indicates that from eighteen months to two years are required.

(2) How many months will Germany require to defeat Russia, to reconstitute her forces subsequent to Russia's defeat and to exploit to any perceptible degree the vast resources of Russia? It is believed that Germany will occupy Russian territory west of the general line; White Sea, Moscow, Volga River, (all inclusive) by July 1, 1942, and that militarily, Russia will be substantially impotent subsequent to that date. Thereafter, Germany will "Coventry" all industrial areas, lines of communications and sources of raw materials east of the line indicated, unless a drastic Nazi treaty is accepted by Russia. Germany will probably require a full year to bring order out of chaos in the conquered areas, so that it will be July 1, 1943, before she will largely profit economically by her "drive to the east." The maintenance of huge armies of occupation has become unnecessary. By totally disarming the conquered people, maintaining splendidly organized intelligence and communications nets, and employing strategically located, highly mobile forces (parachute, air-borne, mechanized and motorized), Germany may control the occupied areas with relatively small forces, thus releasing the bulk of the military for other tasks. Obviously, our war effort time-table, covering the production of munitions, the creation of trained military forces and the increase of transportation facilities (air, ground and sea), is strongly influenced by events transpiring in the Russian theater.

(3) We are confronted by two possibilities; first, a rapidly accelerated all-out effort with a view to conducting decisive, offensive operations against the enemy before he can liquidate or recoup from his struggle with Russia; second, a long drawn-out war of

attrition. Under our present production schedule, we will soon have adequate military means to defend our outlying possessions and bases and to provide for the security of the Western Hemisphere, but we will not be able to provide sufficient appropriate forces for timely offensive action in the principal theater of operations. The urgency for positive action exists, particularly while the enemy is contained militarily in Russia. It would strongly contribute to the early and decisive defeat of the Axis Powers, if the Allied forces could seize and firmly establish military bases from which immediate air and subsequent ground and air operations might be undertaken.

(4) The United States is approaching its task in a logical manner, but the production of materiel must be greatly accelerated to permit its accomplishment. At present, the bulk of our production has to be devoted to the support of Great Britain and associates, rendering it impracticable for us to undertake offensive commitments. But time is of the essence and the longer we delay effective offensive operations against the Axis, the more difficult will become the attainment of victory. It is mandatory that we reach an early appreciation of our stupendous task, and gain the whole-hearted support of the entire country in the production of trained men, ships, munitions, and ample reserves. Otherwise, we will be confronted in the not distant future by a Germany strongly entrenched economically, supported by newly acquired sources of vital supplies and industries, with her military forces operating on interior lines, and in a position of hegemony in Europe which will be comparatively easy to defend and maintain.

(5) The time by which production can reach the levels defined by our national objectives is highly speculative. July 1, 1943, has been established as the earliest date on which the

equipment necessary to initiate and sustain our projected operations can be provided. The ability of industry to meet this requirement is contingent upon many intangibles; however, the program can be definitely accomplished, in fact, greatly exceeded, if the industrial potential of the country is fully exploited. The urgency of speed and the desirability of employing our present great economic and industrial advantage over our potential enemies cannot be overemphasized.

4. Strategic Employment of Ground Forces.

a. The future alignment of Powers and their respective combat capacities cannot be accurately predicted. In order to arrive at a plausible basis from which to determine our future requirements, the following assumptions pertaining to the world situation as of July 1, 1943, are made:

(1) Russia is substantially impotent militarily in Europe. Resistance in Siberia, to include the Maritime Provinces, probably continuing.

(2) The Axis military strength is materially weakened through economic blockade; by losses in the Russian campaign, by British air and sea operations; by the inability to exploit quickly the extensively sabotaged Russian industries and raw materials; by lowered morale of the people.

(3) The military forces of Japan are fully involved with or contained by campaigns against a somewhat strengthened China, by the Russian forces in the Far East Maritime Provinces, or by the threat of United States - British military and economic reprisals.

(4) Great Britain and associates have increased their fighting forces by creating and equipping additional combat units.

(5) The French will probably continue their passive collaboration with Germany.

(6) Control of the Mediterranean Theater, including North Africa and the Near East, remains disputed.

(7) The United States is an active belligerent and is collaborating in an all-out effort to defeat Germany.

b. If these assumptions are correct, or even reasonably sound, on July 1, 1943, there will be no military bases remaining in Allied hands, other than the United Kingdom, possibly the northern coast of Africa and the Near East. The establishment of additional bases, for example, in the Iberian Peninsula, the Scandinavian Peninsula and Northwest Africa will be bitterly contested by the Axis. However, to bring about the ultimate defeat of Germany, those bases and others even more difficult to establish, must be available to the Allies. Obviously, carefully planned action, involving appropriate sea, air and ground units must be undertaken. Allied success is directly contingent upon the coordinated employment of overwhelming forces, surprise and mobility, supported by sufficient reserves in materiel and man-power to insure a succession of effective impulses throughout the operations.

c. Latest information pertaining to the potential industrial capacities and military strengths of the opposing Powers, (excluding the U. S.) as of July 1, 1943, indicates that the Axis Powers will have about 400 divisions available in the European-Near East Theater and the Allied Powers approximately 100 divisions. To accomplish the numerical superiority, about 2 to 1, usually considered necessary before undertaking offensive operations, the Allies would have to raise about 700 divisions. A force of 700 divisions with appropriate supporting and service troops would approximate 22 million men. If Great Britain and the United States should induct so many men for military service, added to the tremendous numbers already under arms, the economic and industrial effort, necessary to conduct the

war, would be definitely imperiled.

d. It is believed that the enemy can be defeated without creating the numerical superiority indicated. Effective employment of modern air and ground fighting machines and a tight economic blockade may create conditions that will make the realization of the Allied War Aims perfectly feasible with numerically less fighting men. Another million men in Flanders would not have turned the tide of battle for France. If the French army had had sufficient tanks and planes, and quantities of antitank and antiaircraft materiel, France might have remained a dominant power in Europe. In June, 1941, when the Germans launched their invasion of Russia, they knew that their adversary was numerically superior and could maintain that superiority in spite of tremendous losses. They probably also knew that Stalin was creating a military force of great power, consisting primarily of effective modern fighting machines, and that if they delayed their "drive to the east" another year, Russia would possess armadas of air and ground machines which would not only render an offensive campaign impossible, but would make large demands upon the German military to secure her eastern frontier. The Crete campaign also presents illuminating evidence in favor of modern fighting means when opposed by superior numbers that are equipped with inappropriate means and are operating under World War I static tactical concepts. Approximately 17,000 Germans attacked and conquered the island which was defended by about 30,000 British.

e. Our broad concept, of encircling and advancing step-by-step, with a view to closing-in on Germany, will remain sound regardless of future developments in the European situation, for it envisages the only practical way in which military and economic pressure may be brought to bear effectively against Germany. The loss of potential bases of operation, presently available, would render the accomplish-

ment of our strategic plans extremely difficult and costly. It is important, therefore, that the Allies take effective measures to hold the United Kingdom, the Middle East, and North African areas. Also the islands off the northwestern coast of Africa should be denied to the enemy. Before undertaking operations in connection with the establishment of additional military bases, for example, in the Scandinavian Peninsula, the Iberian Peninsula, Africa and the Low Countries, a careful survey of the areas of projected operations and a thorough examination of the enemy capabilities are mandatory. The unfortunate Norway campaign of 1940 is a glaring example of a total lack of appreciation of such realities on the part of those responsible for the British expedition. The Germans employed approximately 175,000 men, strongly supported by the Air Force, to conquer and secure their lodgement in Norway. Special Task Forces, including two mountain divisions and numerous parachute units made effective contributions to the success of the operation. Having gained a foothold, the Germans quickly established themselves in order to hold their bases and to facilitate exploitation. The British Forces despatched against Norway totalled about 24,000 men, with no mountain troops and with inadequate air supporting units. The failure of the British Expedition is directly attributable to insufficient and inappropriate means. If and when the situation indicates the feasibility of an Allied expedition, against Norway for example, powerful and appropriate means, especially trained and equipped for the task, must be provided. Large and effective reserves must be readily available to preclude dislodgement of the initial forces and to facilitate subsequent exploitation. A careful study of Norway, including the terrain and communications net, and a survey of possible enemy capabilities, indicate the necessity for mountain, infantry foot and motorized divisions, numerous

parachute, tank, antitank, antiaircraft and air-borne units. The force required for the entire operation may total several hundred thousand men. The execution of the plan would be predicated on sea and local air superiority. The size of this force may appear large. However, even though our enemy may not be strong initially in the area of projected operations, the mobility of modern fighting means will enable him to concentrate destructive forces against us with unprecedented speed and surprise effect. The foregoing considerations apply with equal emphasis to proposed forces for other theaters of operations. Careful studies, concerning the Scandinavian Peninsula, the Iberian Peninsula, the Near East and Africa, have been made by the War Plans Division of the General Staff, and these studies made important contributions in the determination of the estimated Ground Forces (See Tab A). The enemy capabilities in those theaters in 1943 would obviously be conjecture. Task Forces consisting principally of armored and motorized divisions, must be created for possible operations in North Africa, the Middle East, France and the Low Countries. The exact strength and the composition of the Task Forces, necessary to seize and maintain military bases, will be determined immediately prior to the operation. We can avoid the unfortunate disasters experienced by our potential allies in Norway, France, the Balkans and in Crete by planning now and creating quickly the production capacity necessary to equip the ground forces recommended (Tab A). We must not suffer ignominious defeat and be expelled from the bases that we elect to establish. If the premises and assumptions made earlier in this study are appropriate and sound, additional strategically located bases are vital to the splendidly conceived plans of the Air Force and finally may serve as areas of departure for the combined operations of air and ground forces. The seizure, retention, and effective utilization of these bases is predicated on the successful operations of adequate sea, air and ground forces.

5. Shipping was a bottleneck in the last war and again increased demands will be placed on all transportation facilities, particularly water, by constant troop movements and the expanded war industrial and economic effort. In order to transport and maintain effective forces in European areas, several million tons of shipping and adequate port facilities must be made available essentially for military service. To transport five million men with their modern air and mechanized equipment to European ports over a period of approximately one year would require about seven million tons of shipping or 1,000 ships. To maintain such a force in the theater of operations would require about ten million tons of shipping or 1,500 ships. But it is highly improbable that the situation in Europe will develop in such manner as to permit or to require operations involving the movement of so large a force across the Atlantic within the limited time of one year, even if the ship tonnage were available. The progressive building-up of large military forces in the theater will probably extend over a period of at least two years. This progressive movement would greatly reduce the demands upon maritime shipping for essentially military purposes and further would extend the period of time for the augmentation of maritime shipping now available. The realization of our present national policies may require operations in distant theaters by military forces of unprecedented strength. It would be folly to create strong fighting forces without providing the transportation to move and maintain them in the contemplated theaters of operations. The maximum possible shipbuilding capacity of our country, coordinated of course with other essential demands upon industry and raw materials, must be exploited and continued in operation for the next several years.

6. The foregoing considerations clearly indicate the importance of creating a productive capacity in this country, that will provide

the most modern equipment designed to give mobility and destructive power to our striking forces. The forces that we now estimate as necessary to realize our national objectives and for which production capacity must be provided, may not be adequate or appropriate. No one can predict the situation that will confront the United States in July, 1943. We may require much larger forces than those indicated below, and correspondingly greatly increased quantities of equipment. Emphasis has been placed on destructive power and mobility, with a view to offensive maneuvers in our principal theater of operations (Europe). The forces deemed necessary to accomplish the role of ground units in the supreme effort to defeat our potential enemies, total 5 Field Armies consisting of approximately 215 divisions (infantry, armored, motorized, air-borne, mountain and cavalry) with appropriate supporting and service elements. The strategic concept outlined in this paper contemplates distribution of U. S. ground forces approximately as follows: (More specific data will be found in Tab A).

Iceland	29,000
Scotland	11,000
England	41,000
Ireland	25,000
Hawaii	61,000
Fuerto Rico	34,000
Panama	42,000
Alaska	29,000
Philippine Islands	25,000
Smaller Outlying Bases	32,000
Potential Task Forces	-
First Army	775,500
Third Army	590,000
Fourth Army	710,000
Brazil	86,000
Colombia - Ecuador - Peru	37,000
Total	2,500,000

Strategic Reserves for which production capacity must be established but whose activation, location and training will be determined by developments in the international situation. 3,000,000

Troops in the Zone of the Interior and Fixed Defense Units (Ground)	<u>1,200,000</u>
TOTAL GROUND FORCES	6,700,000

TAB A

The Ground Forces estimated as necessary to provide for the security of the U.S. outlying possessions, the Western Hemisphere and to make available appropriate forces for projected military operations follow:

1. Units organized, fully equipped and trained as soon as practicable:

a. Military Bases and Outlying Possessions.

Newfoundland	5,690
Greenland	2,531
Caribbean Bases	40,199
Puerto Rico	34,757
Panama	42,514
Hawaii	61,337
Philippines	25,397
Alaska	23,323
Iceland	23,709
Bases in British Isles	<u>75,160</u>
	345,217

b. Potential Task Forces

Brazil

1 Army Corps (1 Div. Inf, 1 Div. Air-Borne)	42,392
2 Artillery Battalions Pack	1,304
1 Cavalry Regiment	1,591
5 Parachute Battalions	2,590
1 Antiaircraft Regiment and 2 Medium Battalions	3,619
2 Aircraft Warning Regiments	2,600
2 Tank Battalions (Light)	1,086
3 Anti-Tank Battalions	2,100
Services	<u>28,364</u>
Total	55,643

Colombia-Ecuador-Peru

1 Division	15,245
2 Artillery Battalions	1,400
3 Parachute Battalions	1,554
1 Antiaircraft Regiment and 2 Medium Battalions	3,619
2 Tank Battalions (Light)	1,086
1 Aircraft Warning Regiment	1,300
Services	<u>13,025</u>
Total	37,239

First Army

1 Army consisting of 3 Corps of 3 Divisions ea.	242,216
2 Armored Corps consisting of 2 Armd Div. ea.	53,556
2 Divisions (4 Mtzd, 2 Mountain, 2 Air-borne)	102,516
5 Parachute Bns.	2,590
13 Artillery Bns. (4 heavy, 6 (105mm), 3 (75mm How Pk)	9,906
20 Antiaircraft Regts and 10 extra Bns. 37mm	46,970
11 Tank Battalions (3 Medium and 5 Light)	4,839
12 Aircraft Warning Regts	15,600
10 Tank Destroyer Bns; and 10 anti-tank Bn (Gun) Services (Ord., Qf, Sig., Engr., Med.)	14,000
	<u>278,069</u>
Total	<u>776,262</u>

Third Army

1 Army (3 Corps, 9 Divisions)	242,216
1 Armored Corps (2 Divisions)	26,778
2 Divisions Motorized	32,258
6 Artillery Battalions (Medium & Heavy)	4,300
1 Cavalry Corps and 2 H-Hecz Regiments	26,867
2 Air-Borne Divisions	20,000
5 Parachute Battalions	2,590
5 Antiaircraft Regiments and three medium Bns.	12,166
3 Aircraft Warning Regiments	3,900
15 Tank Destroyers or Anti-Tank Battalions Services	10,500
	<u>207,860</u>
Total	<u>589,435</u>

Fourth Army

1 Army (3 Corps, 9 Divisions)	242,216
1 Armored Corps (2 Divisions)	25,394
4 Divisions, Motorized	64,516
8 Artillery Battalions (Medium or Heavy)	8,800
4 Divisions (2 Mountain, 2 Air-Borne)	44,000
2 Parachute Battalions	1,036
15 Antiaircraft Regiments and 10 Medium Bns.	37,345
8 Tank Battalions (Medium or Light)	4,839
6 Aircraft Warning Regiments	7,800
25 Tank Destroyers or Anti-Tank Battalions Services	17,500
	<u>256,413</u>
Total	<u>709,859</u>

Total Task Forces 2,199,441

c. The troops considered necessary in the ground forces, i.e. organized, fully equipped and trained, for current and future employment as security forces in military bases and outlying possessions, and as striking forces in any theater, follows:

Military Bases and Outlying Possessions	346,217
Potential Task Forces	<u>2,199,441</u>
Total	<u>2,545,658</u>

2. Production capacity should be created to equip approximately 3 million for the reserve units indicated below. Activation, location and training of these units will depend upon the international situation.

a. Strategic Reserves.

2 Armies (10 Army Corps, 27 Divisions)	
14 Armored Corps (53 Armored Divisions)	
51 Divisions Motorized	
115 Artillery Battalions, (Pack Medium or Heavy)	
9 Divisions (2 Cavalry, 6 Mountain, 3 Air-Borne)	
22 Parachute Battalions	
129 Antiaircraft Regiments and 133 Medium Bns.	
86 Tank Battalions (70 Medium, 6 Light, 10 Heavy)	
29 Aircraft Warning Regiments	
290 Tank Destroyer Battalions	
262 Anti-Tank Battalions (Gun)	

Total - approximately	3,000,000
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3. Ground troops required for the zone of Interior and Fixed Defense Units 1,200,000

4. Recapitulation of Ground Forces

Military Bases and Outlying Possessions	346,217
Potential Task Forces	2,199,441
Zone of Interior - Fixed Defenses	<u>1,200,000</u>
Total	<u>3,745,658</u>

Units in reserve to be activated when situation requires	<u>3,000,000</u>
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<u>Total Army Ground Forces</u>	<u>6,745,658</u>
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5. Air Force requirements (details submitted in a separated study)

Air Force Combat	1,100,000
Zone of Interior Service Units	<u>950,000</u>
Total Air Force	<u>2,050,000</u>

6. Army Ground Forces	<u>6,745,658</u>
Army Air Forces	<u>2,050,000</u>
TOTAL ARMY FORCES	<u>8,795,658</u>

SECRET

Brief of Strategic Concept of Operations Required to Defeat our Potential Enemies

(September 1941)

Strategic Objective: To defeat GERMANY and her Allies.

Purpose of the formulation of a Strategic Concept of Operations: To evolve a basis for the determination of the United States over-all production requirements.

ASSUMPTIONS

1st Phase - (Until V-Day, or when hostilities begin)

2d Phase (V-Day until prepared for final offensive action)

Final Phase

1. U.S. National Policy is:

- a. Monroe Doctrine: Resist with all means Axis penetration in Western Hemisphere.
- b. Aid to Britain: Limited only by U.S. needs and abilities of British to utilize; insure delivery.
- c. Aid to other Axis-opposed nations: Limited by U.S. and British requirements.
- d. Far-Eastern policy: To disapprove strongly Japanese aggression and to convey to Japan determination of U.S. to take positive action. To avoid major military and naval commitments in the Far East at this time.
- e. Freedom of the Seas.

2. That eventually the U.S. will employ all armed forces necessary to accomplish national objectives.

3. That potential enemies are Germany, Italy, Japan, Bulgaria, Romania, Vichy France, and Axis-controlled or occupied nations.

4. That our potential associates and friendly powers are the British Commonwealth, China, Russia, Free French, Latin American Countries, Governments in Exile, Netherlands East Indies and Turkey.

5. That the principal theater of operations is Europe, but other possible theaters may later appear desirable.

6. That operations will be in accordance with approved secret war plans.

7. That the defeat of our potential enemies is primarily dependent on the defeat of GERMANY.

8. That field forces (air and/or ground) will not be prepared for ultimate decisive modern combat before July 1, 1943 due to shortage of essential equipment.

9. That the strategic concept, based upon the implementation provided by the ultimate program, must be projected to the period subsequent to July 1, 1943.

10. That ultimate requirements, based on association with British Empire, will more than cover the quantitative requirements of the United States in case of British defeat. Qualitative changes in the production of certain articles will be necessary.

11. That the paramount territorial interests of the United States are in the Western Hemisphere, and that the United States must maintain dispositions to prevent the extension of European or Asiatic political or military power in the Western Hemisphere.

Objective: Insure delivery of supplies to the British Isles and provide munitions for other nations fighting the Axis, in order to preclude a diminution of their war effort and concurrently to prepare U.S. forces for active participation in the war.

Nature of Operations:

- Continue to carry out present national policies, short of war.
- Continue the training and equipping of armed forces.
- Reinforce Atlantic bases, Alaska, and overseas possessions.
- Relieve British troops in Iceland.
- Continue naval operations as provided in approved secret war plans.
- Continue joint training exercises to greatest possible extent.
- Establish South American bases as soon as diplomatic arrangements are consummated.
- Initiate at once the production program for the provision of ultimate requirements of armed forces and the necessary shipping for the armed forces.
- To insure that the maximum number of troops are available to assist in the expansion program, the Secretary of War will determine from time to time the size, composition and protected employment of units deemed necessary for an emergency striking force. This fully equipped and highly trained force will be maintained to meet any emergency and the combat effectiveness of units in such force must not be jeopardized in the expansion of the Army. All other units and equipment not required in emergency striking forces will be available for the training of new increments.

Objective: Prepare the way for eventual defeat of Germany by active participation as Associate of Great Britain and other nations fighting the Axis Powers.

Nature of Operations: In general, a strategic defensive in all theatres.

- Prevent Axis penetration into Western Hemisphere by destroying enemy expeditionary forces and by denying use of bases.
- Protect sea communications of Associated Powers and destroy Axis sea communications.
- Defend continental U.S., bases, and overseas possessions.
- Destroy Axis sea power.
- Continue aid to Britain to keep her full man power equipped as to air and ground forces.
- Destroy Axis communications, production facilities, and air forces by cooperation of U.S. air units with S.A.F. Intensify Air Force Program to insure early air superiority.
- Defend U.S. naval and air bases wherever located.
- Provide token force for defense of British Isles.
- In the Far East, defend Philippines, and support forces of Associated Powers in accordance with approved secret war plans.
- Take all necessary measures to enforce economic blockade of Axis Powers.
- Continue to build up well-trained, modernly equipped military forces in the United States for eventual employment in decisive action against the Axis Powers.
- Establish additional, strategically located sea and air bases to facilitate operations during this and the final phase.

Objective: Total defeat of Germany.

Nature of Operations: Strategic offensive in Atlantic and European Theatres; strategic defensive in Far East.

Continue operations of Phase 2, greatly intensified. Gain air superiority in Europe by conducting vigorous air operations, utilizing to the maximum the air base facilities in the British Isles.

Maintain sufficient reserves of land and air force with necessary shipping to apply pressure upon Germany wherever soft spots arise in Europe or adjacent areas; to seize air bases wherever opportunity offers; and to provide the final decisive task forces for offensive action in any appropriate overseas theatre.

Prior to the final offensive, the following conditions must be created:

- (1) Axis surface and sub-surface vessels swept from the Atlantic and North Sea or their operations rendered ineffective in those waters.
- (2) Axis air operations greatly restricted by active offensive action and passive economic deprivation.
- (3) Support to Axis totalitarian governments weakened by subversive activities, prolongation of war, suffering caused by economic blockade.
- (4) The effectiveness of the German combat team has been weakened by over-extension, air attack on production and communication facilities, and deprivation of essential supplies.

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ULTIMATE REQUIREMENTS - GROUND FORCES

(September 1941)

ASSUMPTIONS

1. That the world situation as of July 1, 1943 will be approximately as follows:
 1. Russia is considerably weakened militarily in Europe. Resistance in Siberia, to include Maritime Provinces, continuing.
 2. The Axis military strength is materially weakened through economic blockade; by losses in the Russian campaign; by British air and sea operations; by the inability to exploit quickly the extensively sabotaged Russian industries and raw materials; by lowered morale of the people.
 3. The military forces of Japan are fully involved with or contained by campaigns against a somewhat strengthened China, by the Russian forces in the Far East Maritime Provinces, or by the threat of United States - British military and economic reprisals.
 4. Great Britain and associates have increased their fighting forces by creating and equipping additional combat units.
 5. The French continue their passive collaboration with Germany.
 6. Control of the Mediterranean Theater, including North Africa and the Near East, remains disputed.
 7. The United States is an active belligerent and is collaborating militarily and economically with Great Britain and associates in an all-out effort to defeat Germany.
- II. That before ground operations are undertaken in Continental Europe, the following conditions must be created by our sea and air forces in collaboration with the British and Associated Powers:
 1. The surface and subsurface vessels of the Axis must be swept from the seas, particularly in the Atlantic and water areas contiguous to Europe.
 2. Overwhelming air superiority must be accomplished.
 3. The economic and industrial life of Germany must be rendered ineffective through the disruption and destruction of lines of communications, of port and industrial facilities, and by the interception of raw materials.
 4. The combat effectiveness of the German air and ground units must be weakened by overextension, dispersion, and shortage of materiel, including fuel.
 5. Popular support of the war effort by the peoples of the Axis Powers must be weakened and their confidence shattered by subversive activities, propaganda, deprivation and the destruction wrought.
- III. That the scope and nature of the military operations necessary to defeat the Axis Powers cannot be predicted at this time, but we must prepare to fight Germany by actually coming to grips with and defeating her ground forces and definitely breaking her will to combat.
- IV. That the establishment of effective military bases, encircling the Nazi citadel, must be undertaken as appropriate means become available and when favorable conditions are created for the operations involved.

ULTIMATE GOAL - GROUND FORCES

1. Based on the foregoing assumptions, and on the military operations deemed necessary for the realization of our national objectives, a production capacity must be created to accomplish the following:
 1. To assist Great Britain, China, Russia and other associates in order to preclude a disjunction of their war effort.
 2. To provide the shipping required in order to sustain an all-out military effort, and concurrently, to provide for our commercial needs and to assist friendly Powers.
 3. To equip and maintain forces for employment in Military Bases, Outlying Possessions, and Potential Task Forces as follows:

a. MILITARY BASES AND OUTLYING POSSESSIONS

Newfoundland	5,690
Greenland	2,531
Jamaica	876
Bermuda	3,741
Antigua	434
St. Lucia	434
Curacao - Aruba	5,951
British Guiana	752
Trinidad	28,411
Puerto Rico	34,757
Panama	42,614
Hawaii	61,337
Philippines	25,397
Alaska	28,823
Iceland	28,709
Scotland	10,147
Ireland	24,656
England	41,357
Total	346,217

b. POTENTIAL TASK FORCES

Brazil	
1 Army Corps (Hq & Hq Co and Corps Troops)	17,147
1 Infantry Triangular Division	15,245
1 Air-Borne Division	10,000
2 Artillery Battalions (75mm How Pk)	1,804
1 Cavalry Regiment (H-M)	1,591
5 Parachute Battalions	2,590
1 Antiaircraft Regiment	1,925
2 Antiaircraft Battalions, 37mm (Mobile)	1,694
2 Aircraft Warning Regiments	2,600
2 Tank Battalions (Light)	1,066
3 Antitank Battalions (Own)	2,100
Services (Med. Ord, QM, Engr, Sig)	25,854
Total	86,546

Colombia-Ecuador-Peru

1 Infantry Triangular Division	15,245
2 Artillery Battalions (105mm)	1,400
3 Parachute Battalions	1,594
1 Antiaircraft Regiment	1,925
2 Antiaircraft Battalions, 37mm (Mobile)	1,694
2 Tank Battalions (Light)	1,066
1 Aircraft Warning Regiment	1,500
Services (Med. Ord, QM, Engr, Sig)	13,035
Total	37,239

First Army

1 Army (Hq & Hq Co and Army Troops)	53,570
3 Army Corps Hq & Hq Co. and Corps Troops	51,441
9 Infantry Triangular Divisions	137,205
2 Armored Corps Hq and Corps Troops	2,768
4 Armored Divisions	50,788
4 Infantry Triangular Divisions (Mtd)	64,516
6 Artillery Battalions (105mm)	4,300
2 Artillery Regiments (Heavy)	3,000
3 Artillery Battalions (75mm How Pk)	2,706
2 Mountain Divisions	24,000
2 Air-Borne Divisions	20,000
5 Parachute Battalions	2,590
20 Antiaircraft Regiments	34,500
10 Antiaircraft Battalions 37mm (Mobile)	8,470
3 Tank Battalions (Medium)	2,124
5 Tank Battalions (Light)	2,715
12 Aircraft Warning Regiments	15,600
10 Tank Destroyer Battalions	7,000
10 Antitank Battalions (Own)	7,000
Services (Ord, QM, Sig, Engr, Med)	278,069
Total	776,262

Third Army

1 Army Hq & Hq Co and Army Troops	53,570
3 Army Corps Hq & Hq Co and Corps Troops	51,441
9 Infantry Triangular Divisions	137,205
1 Armored Corps Hq and Corps Troops	1,384
2 Armored Divisions	25,394
2 Infantry Triangular Divisions (Mtd)	34,258
4 Artillery Battalions (105mm)	2,800
1 Artillery Regiment (Heavy)	1,500
1 Cavalry Corps Hq and Corps Troops	333
2 Cavalry Divisions	23,352
2 Cavalry Regiments (H-M)	3,182
2 Air-Borne Divisions	20,000
5 Parachute Battalions	2,590
5 Antiaircraft Regiments	9,625
3 Antiaircraft Battalions 37mm (Mobile)	2,541
1 Aircraft Warning Regiment	3,900
5 Tank Destroyer Battalions	3,500
10 Antitank Battalions (Own)	7,000
Services (Med. Ord, QM, Engr, Sig)	207,860
Total	589,435

Fourth Army

1 Army Hq & Hq Co and Army Troops	53,570
3 Army Corps Hq & Hq Co and Corps Troops	51,441
9 Infantry Triangular Divisions	137,205
2 Armored Divisions	25,394
4 Infantry Triangular Divisions (Mtd)	64,516
4 Artillery Battalions (105mm)	2,800
4 Artillery Regiments (Heavy)	6,000
2 Mountain Divisions	24,000
2 Air-Borne Divisions	20,000
2 Parachute Battalions	1,036
15 Antiaircraft Regiments	26,635
10 Antiaircraft Battalions 37mm (Mobile)	8,470
3 Tank Battalions (Medium)	2,124
5 Tank Battalions (Light)	2,715
6 Aircraft Warning Regiments	7,800
10 Tank Destroyer Battalions	7,000
15 Antitank Battalions (Own)	10,500
Services (Med. Ord, QM, Engr, Sig)	286,413
Total	709,859

Total Potential Task Forces 2,199,441

8. The total number of troops considered necessary in the ground forces, i.e. organized, fully equipped and trained, for current and future employment as security forces in military bases and outlying possessions, and as striking forces in any theater, follow:

Bases and Outlying Possessions	346,217
Potential Task Forces	2,199,441
Total	2,545,658

9. Production capacity should be created to equip approximately 3 million additional men in the reserve pool indicated below. Activation, location, and training of these units will depend upon the international situation.

Strategic Reserves

2 Army Hq & Hq Cos. and Army Troops	
10 Army Corps Hq & Hq Cos. and Corps Troops	
27 Infantry Triangular Divisions	
14 Armored Corps Hq & Hq Cos. and Corps Troops	
53 Armored Divisions	
61 Infantry Triangular Divisions (Mtd)	
24 Artillery Regiments (Heavy)	
15 Artillery Battalions (75mm Pack)	
52 Artillery Battalions (105mm)	
2 Cavalry Divisions	
6 Mountain Divisions	
3 Air-Borne Divisions	
22 Parachute Battalions	
129 Antiaircraft Regiments	
133 Antiaircraft Battalions, 37mm (Mobile)	
70 Tank Battalions (Medium)	
6 Tank Battalions (Light)	
10 Tank Battalions (Heavy)	
29 Aircraft Warning Regiments	
290 Tank Destroyer Battalions	
262 Antitank Battalions (Own)	

Total (approximately) 3,000,000

5. The Army Aviation Program is included in a separate study, which indicates the detailed organization and requirements in essential equipment.

Total Air Force Personnel (Zone of Interior Troops excluded) 1,100,000

7. Zone of Interior and Fixed Defense Units

Army Ground Forces	1,200,000
Army Air Force	350,000
Total	2,350,000

8. Recapitulation

a. Army Ground Force

Military Bases and Outlying Possessions	346,217
Potential Task Forces	2,199,441
Zone of Interior and Fixed Defense (Ground)	1,200,000
Total Ground Forces (Activated)	3,745,658

Reserve Pool (activated as situation requires) 3,000,000
Total of all Ground Units 6,745,658

b. Army A.F. Force

Combat Units	1,100,000
Zone of Interior and Service Units	950,000
Total Air Force	2,050,000

c. Grand Total

Army Ground Units	6,745,658
Army Air Units	2,050,000
Total Army Forces	8,795,658

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