#61 J.I.C. SPECIAL STUDIES

2

DECLASSIFIED

Map Room
Box 43

CCS 084 Japan (3-6-42)

[redacted]

J.I.C. 1/2

COPY NO. 25

MARCH 6, 1942

JOINT INTELLIGENCE COMMITTEE

JAPANESE LOSSES AND PRODUCTION OF
COMBAT AND MERCHANT VESSELS AND
COMBAT AIRCRAFT

Franklin D. Roosevelt Library
DECLASSIFIED JCS 14-71
RHP 5-21-71

1. Summary.

a. Combat Vessels.

Type	Lost	Gained
Battleship	1	-
Heavy Cruiser	1	-
Light Cruisers	6	-
Destroyers	15	3
Submarines	15	3
Aircraft carrier	-	1
Seaplane tenders	-	8

b. Merchant Vessels. 510,000 tons 680,000 tons

c. Combat Planes. 1,800 975

2. Combat Vessels. (See chart attached.)

a. Estimated War Losses:

(1) Sunk:

1 Battleship
1 Heavy cruiser
6 Light cruisers
15 Destroyers
15 Submarines
38 Total

(2) Damaged:

The exact number of ships damaged cannot be determined. The only definite information available is that pertaining to the number of reports of damage inflicted.

61

These are as follows:

Type	No. of Reports
Battleships	4
Heavy cruisers	3
Light cruisers	26
Seaplane tenders	2
Destroyers	15
Submarines	13
Total	68 Reports of damage inflicted on enemy ships

b. Estimated Production.

(1) New Construction.

3 Destroyers

3 Submarines

Franklin D. Roosevelt Library
DECLASSIFIED JCS 14-71
RHP 5-21-71

(2) Converted from Merchantmen.

1 Aircraft carrier

8 Seaplane tenders

It is possible that a number of other fast merchant vessels have been converted to aircraft carriers, seaplane tenders and armed merchant cruisers.

3. Merchant Vessels.

Estimated war losses	510,000 tons
New construction	235,000 "
Net war loss over new construction	275,000 "
Gain by capture and requisition	445,000 "
Actual net gain	170,000 "

[redacted]

4. Combat Planes.

a. Losses.

Combat losses in BURMA and MALAYA (estimated)	200 planes
Combat losses elsewhere (actual report)	675 "
Total combat losses	875 "
Operational losses (estimated as equal to combat losses, according to European experience)	875 "
Miscellaneous losses (damaged planes failing to reach bases, etc.)	50 "
Total losses	1,800

Franklin D. Roosevelt Library
DECLASSIFIED JCS 14-71
RHP 5-21-71

b. New Construction.

Present Japanese aircraft production is estimated to be not more than 500 planes per month, of which 65 percent, or 325 can be considered the current monthly limit of combat plane production. Hence the production of combat planes during the three months, 7 December--7 March, may be estimated to have been not more than 975.

c. Net Loss.

The Japanese net loss of combat planes is thus estimated to be 825.

Mr Crai

[redacted]

No. 3952

From: The War Department

Franklin D. Roosevelt Library
DECLASSIFIED JCS 14-71

Time Filed at Source: 3/2/42
T.O.R. - O.N.I. 041545

JAPANESE LOSSES

Careful compilation of Japanese combat losses from December 7th to March 3 number at least 850 aircraft, chiefly fighters and bombers.

If these were total losses the net reduction in enemy air strength would be only 100 - 150 planes because based on our present estimates of Japanese productive capacity of all types (400 a month) replacement of fighters, light and heavy bombers, would approximate 250 a month.

However we must add to combat losses, 100% for operational losses, a figure supported by European battle experience and not lessened by the necessity for the Japs to fly over jungle, a nd long water stretches in land-planes. This combined total represents losses of 1700 planes.

A greater loss to Japan than the aircraft involved is the loss in pilots and bomber crews. While this loss will be substantially less than total Jap aircraft losses, it may be conservatively estimated as 1000 pilots. To pilot loss may be added an unestimated number of members of bomber crews, and additional temporary losses in flying personnel, both pilots and crew members, wounded seriously enough to require hospitalization. These losses in flying personnel are more serious to the Japs than to the U.S. for many if not most of the lost enemy pilots and crews had the advantage of combat experience, the invaluable tempering process yet to be undergone by U.S. pilots in numbers.

While evidence of Japanese weakening in the air is entirely fragmentary, it may be evaluated from the following facts.

1. Since January 8th there has been no large-scale enemy air activity over Bataan.
2. General MacArthur's reports on the situation might be interpreted that what few Jap aircraft now operate on that front are second-line.
3. His report of Japanese dive-bombers attacking their own troops by error might indicate the use there of green pilots.
4. His report of the departure of Jap planes from Jolo for the south would indicate that replacements were not readily available, as Jolo is an excellent interception base for heavy bombers carrying supplies to Del Monte.
5. Similarly the reported shift in principal base for the Oceania campaign from Davoa to Kendari might be interpreted as lack of ready replacements, judged from a policy of maintaining strength in depth of communications.

61

[redacted] [redacted] [redacted]

6. Air support of ground troops in recent Burma fighting has been reduced, both before and after the resumption of A.V.G. activity last week.

7. Recently O.N.I. reported that the Japanese aircraft carrier, "Hosho", has been ferrying fighters from the Marshalls to New Britain and that Wake Island is deserted.

8. Press reports of March 2nd were that fighter activity over Java was negligible. The scale of air attack has consistently dwindled from that employed against Singapore, in bombardments over Java, Timor and Papua, although heavy scale against Darwin.

9. Both in Burma and Java, immediate tactical situations appearing to call for strong air support, have not received it. The prominent part taken by ship borne aircraft in operations against Java indicate a possible acute shortage of Army aircraft.

10. Three final considerations are:

(a) Jap fear of Russia will not permit great reduction of her Manchukoa air force, or her protective fighter squadrons at home.

(b) Requirements for air protection of her Oceania flanks, and for maintaining offensive strength to guard against strong American movement from the West similarly will not permit reduction of air strength in the Mandates.

(c) It is inevitable that there must be deterioration in maintenance of many aircraft of the squadrons which have now been almost continuously in action for close to 3 months.

Although this evidence is piece-meal and subject to qualifications in many instances, the picture as a whole is fairly clear.

It is believed Japanese air strength is now not more than 4400 operational craft, a net loss of 950 from her high of 5353 as of December 6, 1941.

When Japan's defensive air requirements are weighed, the conclusion may be drawn that her offensive strength is now spread thin on bases in the 4500 miles between Rangoon and the Solomon Islands.

It is equally clear that unless this attrition continues that Japan's original offensive air strength in planes may be regained through productive replacement.

S.T.M.

ONI DISTRIBUTION: Op-16...Op-16-F...Op-16-F-2...Op-16-F-10... Op 16-C
Op-10/11...Op-12....Naval Aide....BuAer...USMC...Asst.Sec.Nav.for Air...F-34(4 copies)

THIS DESPATCH ISNOT TO BE DUPLICATED WITHOUT THE PERMISSION OF THE DIRECTOR OF NAVAL INTELLIGENCE. RETAIN OR DESTROY.

Franklin D. Roosevelt Library
DECLASSIFIED
JCS 14-71

SECRET

GAINS AND LOSSES IN JAPANESE NAVAL STRENGTH, DEC. 7, 1941 TO MARCH 6, 1942

Dec. 7, 1941			Dec. 7, 1941 - March 6, 1942						March 6, 1942	
Summary of Japanese Combatant Ships Built			Combatant Ships Completed, or Converted from Merchantmen		Combatant Ships Sunk		Reports of Damage to Combatant Ships		Total Combatant Ships Afloat, Including Damaged Vessels.	
Type	No.	Standard Tonnage	Name or Number	Standard Tonnage	Number	Standard Tonnage	Number	Standard Tonnage	Number	Standard Tonnage
BATTLESHIPS	11	336,400	None		1 BB	29,330	4 BB (2)	about 120,000	10	307,070
AIRCRAFT CARRIERS	10	150,720	Hitta Maru (1)	22,500	None		None		11	173,220
HEAVY CRUISERS	18	158,600	None		1 CA	10,000	3 CA (2)	30,000	17	148,600
LIGHT CRUISERS	22	107,655	None (1)		6 CL	30,000	26 CL (2)	77,655 (2)	16	77,655
SEAPLANE TENDERS	6 AV 6 XAV	67,050 90,000	6 XAV (1)	120,000	None	None	2 (2)	30,000	20	277,050
DESTROYERS	130	168,058	3	4,500	15 DD	22,500	15 DD (2)	22,500	118	150,058
SUBMARINES	73	105,896	3	6,540	15 SS	22,500	about 13 SS (2)	19,500	61	89,936
TOTAL, CHIEF COMBATANT TYPES	270	1,184,579	15 (1)	153,540 (+13%)	38	114,330 (-9.6%)	68 (2)	299,655 (25%)	253	1,223,789 (+3%)

NOTE (1): It is probable that a number of other fast merchant vessels have been converted into aircraft carriers, seaplane tenders, and armed merchant cruisers.

NOTE (2): Reports of damage to combatant ships includes a number of ships which have probably been sunk, but pending confirmation, they are included in the total of vessels afloat. It will be noted that the same vessel may have been damaged on several occasions, particularly inthat 26 CL have been reported damaged, although the Japanese had only 22 at the commencement of hostilities.

[redacted]

Franklin D. Roosevelt Library
DECLASSIFIED JCS 14-71

SECRET

THE JOINT BOARD
Joint Intelligence Committee
Washington

J.I.C. 3

Copy No. 4 11 February 1942

MEMORANDUM FOR COMBINED STAFF PLANNERS:

Subject: Possible Japanese Action Against Australia and New Zealand.

Reference: J.C.S. 6, February 5, 1942.

1. The reference directs that the Joint Intelligence Committee furnish the Combined Staff Planners with its comments on an appreciation of the subject enclosed in the reference.

2. The Committee agrees in substance with the conclusions of the Enclosure (paragraphs 2 and 11). Specifically, it believes that at this stage Japan would be content to deny the use of Torres Straits and to isolate Australia and New Zealand, without embarking on a major invasion of either country.

3. The Committee is in substantial agreement with the Enclosure's statement of conditions precedent to a major Japanese attack on Australia or New Zealand (paragraphs 3 and 4). In paragraph 4, however, the Enclosure hypothecates Japanese consolidation of a position including the Netherlands East Indies and islands eastward as far as New Caledonia, Fiji, and Samoa as prerequisite to further offensive operations. In J.I.C. Special Study No. 1, "Japanese Logistic Capabilities," this Committee estimated that the Japanese would consolidate the Burma-Malaya-Netherlands East Indies-Mandates barrier before undertaking further offensive operations. Subsequent comment will be made with reference to hypothetical Japanese consolidation of the B-M-N-M barrier, as outlined in J.I.C. 1.

4. From the barrier, without undertaking a major offensive operation, Japan could deny the use of Torres Strait by neutralizing or occupying key points on the north coast of Australia. This coast is so inaccessible by land from the settled area of Australia and so accessible by sea from the Netherlands East Indies that it is, strategically, an integral part of the barrier rather than of Australia. From the barrier the Japanese could also raid the ports of Australia and New Zealand, as envisaged in paragraph 1 of the Enclosure. Operations to interrupt or harass supply routes from the United States should also be anticipated. It is not necessary to occupy Samoa, Fiji, or New Caledonia for that purpose.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

6

5. Australia and New Zealand are sparsely inhabited white communities isolated from other whites by the 6,000 miles of ocean which separate them from the United States and from South Africa. Both are dependent on overseas communications for essential supplies. Their individual characteristics are as follows:

a. Australia. In an area of 3,000,000 square miles there are only 7,000,000 Australians, nearly half of them in the five cities of Brisbane, Sydney, Melbourne, Adelaide, and Perth. The vital area is the southeastern corner of the continent, bounded by the line Brisbane-Adelaide. There are found the bulk of the population, industry, agriculture, communications facilities, and other utilities. Perth is the center of an isolated community on the west coast. The rest of the country is largely uninhabited desert.

The 12,000 mile perimeter of Australia is too long for all-around defense by the limited forces available. The terrain offers few serious obstacles. Communications are poor by American standards and virtually nonexistent outside of the vital area. A significant war industry has been developed, but it is rendered vulnerable by dependence on outside sources for essential materials.

b. New Zealand, with a population of 1,600,000 in 100,000 square miles, is divided into two main islands incapable of mutual support. The terrain is rugged, but the perimeter is disproportionate to the area and the vital points are the coastal cities of Aukland, Wellington, Christchurch, and Dunédin.

6. By invasion and occupation of Australia and New Zealand Japan could gain the following advantages:

a. The elimination of those countries from the Allied war effort.

b. Their elimination as a bridgehead for counter operations against the barrier.

c. Protection of the Japanese left flank in future operations for the control of the Indian Ocean.

d. The satisfaction of territorial ambitions through the acquisition of territory attractive to emigrants.

e. Acquisition of natural resources, especially iron and wool.

7. By invasion and occupation of Australia and New Zealand Japan would incur the following disadvantages:

a. The extension of their flank and lines of communication across the front of their principal enemy, the United States, and the displacement of major forces away from their traditional enemy, Russia.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

b. The forces required for secure occupation would be disproportionate to the advantages gained.

c. It would be a time-consuming operation, absorbing forces which might be employed more profitably elsewhere.

d. The resistance of a white people in their homeland would be more determined than any yet encountered. They could expect no assistance from a fifth column.

e. The operation would invite the United States and Russia to attack their flank and rear.

8. It is premature to estimate Japanese scales of attack on Australia and New Zealand (paragraph 6 of the enclosure). The Japanese have not yet fulfilled the agreed conditions prerequisite to such an attack. Until they have done so, neither the effect of their losses on forces available nor the effect of Allied counter measures on the forces required can be estimated with precision. An attempted landing in the populated sector of Australia or in New Zealand will assume the proportions of a major operation and will require control of the adjacent sea areas together with local air supremacy.

9. The Committee concludes that, although a major invasion of Australia or New Zealand is unlikely, enemy operations to deny the use of Torres Strait and to isolate the two countries are probable.

LUDWELL L. MONTAGUE,
Major, Cavalry,
Secretary, J.I.C.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

SECRET

THE JOINT BOARD
Joint Intelligence Committee
Washington

J.I.C. 2, Copy No. 16 10 February 1942.

MEMORANDUM FOR JOINT CHIEFS OF STAFF COMMITTEE:

Subject: Comments on a British Appreciation of Germany's Intentions.

References: (a) Medal 65, a summary of a recent British Joint Intelligence Sub-Committee appreciation of Germany's intentions.
(b) Memorandum, Joint Staff Planners, February 2, 1942.

1. Reference (b) forwarded reference (a) to the Joint Intelligence Committee and the Joint Strategical Committee for collaborative study and comment. The Joint Strategical Committee has collaborated in the preparation of this paper, and concurs therein.

2. This Committee believes that Germany cannot undertake a major offensive elsewhere before having destroyed Russia's military power. It, therefore, agrees in general with the conclusions stated in paragraph 12 of the British J.I.C. appreciation. The most probable German major offensive operation during 1942 will be an attack on Russia intended to complete the destruction of the Russian Army and to gain access to the oil of the Caucasus. Meanwhile, every effort will be made to control the central and eastern Mediterranean and to maintain and exploit the position in North Africa.

3. This Committee's views regarding other hypotheses may be stated briefly as follows:

a. An operation through North African ports against Egypt from the west: Likely as a subsidiary undertaking, but not as the major effort. See paragraph 2.

b. An operation through the Iberian Peninsula against Gibraltar and French North Africa: To be undertaken only if necessary to counter an Allied initiative in that region.

c. A thrust through Turkey to Syria and thence to Egypt or Iraq: Unlikely.

d. Invasion of the British Isles: Most unlikely.

4. The considerations from which these conclusions are reached may be indicated by comment, seriatim, on the paragraphs of the British appreciation.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

(1) While it is known that the German oil supply is strictly limited, it is believed that it is sufficient to meet the needs of military operations through 1942 at least. The Military Intelligence Division's estimate of German air strength is as follows:

Total aircraft in tactical groups	5094
In operational training units	2097
In schools	1498
In reserve	4195
In civil repair	2097
Total except transport	14981
Transport	1700
Total aircraft strength of G.H.F.	16681

These figures seem reasonable. They are 20 to 24 percent higher than those given in the British appreciation.

(2) Agreed.

(3) Agreed, with recognition of an additional objective of ultimately gaining control of the Mediterranean.

(4) It is believed that Germany has already withdrawn the bulk of her forces from the Russian front and is now resting and re-equipping these troops in rear areas. The so-called Russian offensive has thus far met little except strong German rear guard action. Up to the present time the situation will not permit a conclusion that a major Russian offensive has been in operation.

(5) No comment.

(6) Wherever Germany has taken the initiative she has always assured herself of air superiority.

(7) No comments. See paragraph (4).

(8A) A renewed German offensive along the whole Russian front is certainly most unlikely, if not wholly impossible, at the present time, nor is it believed that it could be launched prior to 15 May.

(8B) Agreed, assuming that the word "containing" is used in an active sense. The thrust would be designed to split the Russian Army. The main effort would then be in the south toward the Caucasus. The containing action would depend on the capabilities of the Russian Army at that time.

(9) Turkey will be entirely realistic. If the situation is decidedly favorable to Germany at the given time, it is unlikely that Turkey would offer any resistance in the face of certain defeat.

(10A) Agreed.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

(10B) Agreed.

(11) Agreed.

(13-14) See paragraph 5 immediately below:

5. a. "Z" and "D" days. (1) The British use a "Z" day, the date on which the Germans will begin to withdraw divisions from the Russian front to re-equip and reorganize them for later offensive action, as the starting point for their estimated German time-tables. This Committee considers "Z" day to be meaningless, inasmuch as the Germans rotate their divisions in line throughout the year and constantly strive to maintain fresh divisions available for service anywhere. Moreover, it is our opinion that numerous divisions as well as the bulk of the German air force in Russia have already been withdrawn to rest and refit.

(2) A more practical starting point would be a "D" day, that on which the Germans will resume a major offensive against Russia. This "D" day will be determined primarily by climatic conditions. From the Sea of Azov to Finland there is naturally a wide variation in weather conditions. Along the Black Sea coast the thaw should begin about the middle of March, whereas north of Moscow winter conditions will continue well into May. The thaw, usually combined with heavy rains, makes quadmires of the roads, which at best are none too good. On the front from Taganrog to Kursk, it is extremely doubtful that climatic conditions would permit the launching of a major offensive prior to 15 May. For that reason 15 May is taken as a probable "D" day.

b. Operations against the Caucasus. (1) The campaign which requires most thorough consideration is that envisaged by the British Committee in paragraphs 13 (A) ii and 14 (a); that is, a drive on the Caucasus, while containing Russian forces in the center and north.

(2) A campaign in Russia is primarily a problem in logistics. The railroad-highway net will determine in large measure the number of troops that can be employed. From the line Kharkov-Taganrog three railways lead eastward to the line Kamensk-Rostov. From that line only one railway leads on to Stalingrad. In order to secure adequate rail facilities for a force advancing on the Caucasus, it becomes practically necessary to obtain use of the Kursk-Voronezh-Povorino-Stalingrad rail line. Thus there would be four railroads east from the line Kursk-Taganrog to the lateral Voronezh-Rostov railroad and two thence to Stalingrad.

(3) Although the Germans supplement railways with heavy motor columns, it is inconceivable that even they can supply more than 20 divisions to each penetrating rail line. Accordingly, a maximum of 80 divisions could be maintained on the initial Kursk-Taganrog front, which is 400 miles long. For general global planning purposes, it is reasonable to assume one division for every 5 or 6 miles of front in a normal campaign, or 70 to 80 divisions on a 400-mile front. This agrees with the estimated maximum capacity of the rail-

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

road net. Thus the German main effort may be estimated as a mass of about 80 divisions advancing from the line Kursk-Taganrog.

(4) For purposes of general estimation, it may be assumed that the normal average advance in an operation of this nature would be limited to 100 miles a month, in alternate equal stages of movement and consolidation. (In the Russian offensive of 1941 the Germans covered approximately 500 miles in five months.)

(5) The offensive from Kursk-Taganrog against the Caucasus would probably take the form of a right wheel pivoting on Rostov, so that eventually this group of armies would change from an easterly direction to a southeasterly one along line of Don River between Rostov and Stalingrad. Within two weeks Rostov would probably have fallen. The drive to Stalingrad, however, might well take three or four months. While the elements of the German Army that reached Rostov in two weeks could well debouch therefrom, say within "D" plus 30 days, without awaiting the fall of Stalingrad, they would be definitely limited in strength to no more than 20 divisions. The front Stalingrad-Rostov calls for a force of nearer 40 divisions. These can be supported when Stalingrad is taken, as the rail line Stalingrad-Tikhoretsk indicates. The remaining 35 divisions of the original attacking force would be utilized in containing or assisting in containing the Russian Army in the north.

(6) The advance from Rostov to the line Armavir-Maikop-Tuapse (150 miles) could be made in about 1½ months; that is, about 2 months after "D" day, or by 15 July. This estimate is based on an assumption that the Kerch Peninsula is defended strongly and that the Germans are unable to force a landing at Novorossisk and Tuapse. These assumptions are considered reasonably sound. The occupation of Grozni could well occur 2 months later, that is "D" plus 4 months, or 15 Sept.

(7) If the campaign reached this point in accordance with this highly theoretical time schedule, it would find the Germans solidly in control of Stalingrad and the Volga north thereof, while the Russian Army defending the Caucasus would have fallen back beyond Grozni. A major decision would then arise as to whether the remnants of this Russian Army would withdraw towards Astrakan or decide to continue the defense of the oil regions of Baku, falling back on the Trans-Caucasus and ultimately on Iran. It must be remembered that the Russian forces defending in this Caucasus area would then be hopelessly separated from the main Russian Armies, which would probably have withdrawn on the Kazan-Kuibyshev front.

c. Secondary operations in Russia. Containing action to prevent Russian forces in the north from disrupting the German advance toward the Caucasus is essential to the success of the main effort outlined in such detail above. It is believed that this would be accomplished by a secondary attack northeastward, generally along the Oka River, with a view to seizing Gorki and Kazan, driving the Russian forces north and east of the Volga River. By the same reasoning and consideration of time schedule, it would seem that this maneuver would require about 4 months. The Russian forces, if all went well, would thus

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

become hopelessly divided.

d. The Middle East. (1) Discussion of another likely secondary effort is pertinent. This effort would envisage heavy reinforcements to Rommel with a view to over-running Egypt, seizing the Suez Canal, driving eastward and threatening Basra. This large-scale double envelopment is of the type normally envisaged by the Germans. The drive through Egypt, with the present weakened strength of the Allied forces, would probably require not more than 20 divisions.

(2) If this gigantic maneuver was succeeding, the attitude of Turkey would no longer be in doubt. Rather than accept certain defeat, it is probable that the Turks would grudgingly permit the use of their railroads and highways by Germany.

e. Summary. These time-tables are purely theoretical. They are meant to indicate the maximum rate of progress of which the Germans are apt to be capable. So much speculative data is involved, and so many imponderables, that rigid estimates as to forces and elapsed time required to reach various distant objectives may be misleading and dangerous. If the Germans can maintain such a schedule, they can gain a major decision against Russia in 1942 and perhaps a decision in the Middle East as well. They would then be in a position to move on India in 1943, if they so elect. The Russian Army might disrupt the schedule. The outcome therefore depends more upon the relative combat value of Russian and German divisions than upon any other factor.

LUDWELL L. MONTAGUE,
Major, Cavalry,
Secretary, J.I.C.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

COPY

[redacted] NAVAL MESSAGE

IN

T.O.O. 0835A/30

Received: 30/1/42

Time : 1531

Addressed: B.A.D., Washington 868

From : Admiralty

MEDAL 65

Following is a summary of recent Joint Intelligence Sub Committee's appreciation of Germany's intentions.

1. Germany is becoming short of oil and her air force has been reduced to first line strength of approximately 4,000 operational and 1,400 transport aircraft.

2. She has recently increased naval and air forces in the Mediterranean. Considerable number of submarines and small craft have arrived in this area and large stocks of oil have been accumulated at Mediterranean ports.

3. We believe the supply increase intended chiefly for protection of Axis communication with North Africa to neutralise Malta, and to insure against a successful British advance to the Tunis frontier.

4. On Russian front the initiative still in Russia's hands and German forces withdrawing under strong pressure. As yet, no sign of present Russian offensive exhausting itself. Until it does, it will be impossible for Germany to withdraw substantial forces from Russia to rest and refit so as to form a striking force for renewal of offensive on the Russian front or for large scale operations in other theatres of war.

5. On the contrary, we know Flak defences in Ukraine are being strengthened at the expense of Roumania and that other air units including air force troops, recently withdrawn from Russian front are being hurriedly returned there after minimum time spent in rest and refit.

6. Owing to reduction in strength of German Air Force unlikely that Germany will be able to make available sufficient air force to contain Russians and at the same time undertake large scale operations elsewhere. Further, this weakness will compel Germany to limit her offensive to one major operation only where she might hope to concentrate an air force sufficient to give her local superiority. To achieve this she would have to reduce her air force elsewhere to a minimum required for security.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

7. No evidence (?German) striking force being created now, nor do we consider a striking force sufficient for large scale operation can be created so long as the Russian offensive is maintained. Assuming for the sake of argument that stabilisation is reached by 15th February, earliest date by which division (including divisions which may be made available from detached squadrons) for large scale operations could be withdrawn, rested and restored, would be the 1st May. So far as Russia is concerned large scale operations unlikely to take place owing thaw during April, and the consequently difficulty of movement.

Possible courses of German action.

8. (A) A renewed offensive along the whole Russian front. For reasons already given this is most unlikely, if not wholly impossible as yet.

(B) A thrust in the south towards Caucasia (while containing Russian army in north and centre).

Germany must secure, at the earliest opportunity possible substantial supplies of oil. She can only obtain fabric oil in Caucasia or Iraq. For reasons given below, Caucasia is the most likely major operation.

9. A thrust through Turkey (?towards) Syria and thence to Iraq and/or Egypt. Advance through Turkey into Iraq would put Germany in possession of oil fields potentially capable of meeting her needs. Would deprive us of oil on which our Eastern Mediterranean naval position partly depends. Would bring Germany within striking distance of Abadan and open way to a further advance into Egypt. On the other hand transport of oil from Iraq would be more difficult than from Caucasia, at least until Germany had a secure sea route through Eastern Mediterranean. Moreover, even if Turkey acquiesced in passage of German forces through her territory Germans would be undertaking new military commitments. Seems unlikely that Turkey would acquiesce unless Russian army defeated or we had suffered such reverses that she felt confident that Germany would win the war.

10. Operation in central and western Mediterranean areas (a) through Iberian Peninsula against Gibraltar and French North Africa. Advantage to be gained substantial but operation would involve Germany in another military commitment in theatre of war remote from main source of oil and other supplies. Occupation of Peninsula would subsequently be a heavy economic liability. This operation therefore appears likely, only in order to counter or forestall action against ourselves or America.
(b) Through North Africa ports against Egypt from west, possibly in conjunction with an attack through Turkey. Germans will attempt to maintain and exploit their position in North Africa, and for this purpose reinforce Rommel with forces necessary. Presence of strong air force in central Mediterranean area would serve to neutralise Malta and protect communication with Tripoli. Germany may try to capture Malta.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

II. Invasion of British Isles. It is unlikely that Germany could undertake so large and risky operation as long as Russia remains undefeated.

CONCLUSION

12. Most probable German major operation likely to be made through Ukraine (? towards) Caucasus to obtain oil. Meanwhile, every effort will be made to control the central and eastern Mediterranean and to maintain and (? exploit) the position in North Africa.

13. Following is our estimate of force Germany would require for operation referred to in paragraph 5 to 11 above and of time that must elapse between beginning of withdrawal of divisions from Russia and concentration of force ready for attack in several theatres of operation. "Z" day is date on which withdrawal of divisions beginning:

(A) Renewed offensive against Russia.

(i) An offensive all along the Russian Front. We cannot as yet see possibility of this operation. Forces required more than Germans have got.

(ii) Thrust in south towards Caucasia (while containing Russian armies in north and centre). Force required against Caucasia some 30 Divisions (of which some 4 to 6 armoured and 4 to 6 motorized) and 1500 aircraft. Earliest date by which this operation could be developed. Concentration on the southern sector Z upward 2½ months. Fall of ROSTOV Z plus 3 months. Occupation of MAIKOP - TAUPSE area Z plus 4 to Z plus 4½ months. Occupation of GROZNI area Z plus 5 months. Occupation of BATUM - BAKU area dependent on degree of resistance in Caucasia.

?(B) Thrust through Turkey towards Syria and thence Iraq and/or Egypt. Land force required 20 Divisions (including 4 armoured and 6 motorised). Air force required - if Germans decided to attack Turkey they would expect Turks to receive air assistance from ourselves. Unlikely therefore that Germans would attack until they had assembled, in area from central Mediterranean to Black Sea (which must be treated as a whole) some 1500 aircraft in addition to all available Italian aircraft.

Earliest date on which forces could be concentrated on Turkish Frontier. Z plus 2½ months. Earliest date on which force could reach Syrian Frontier. Turkey acquiescent Z plus 3 3/4 months. Turkey resistance incalculable.

(C) Invasion of British Isles.

Land force required: 30 divisions (including 9 armoured), exclusive of Divisions required for diversion.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

Air Force required: - Full first line strength, denuding all other theatres of war.

Naval forces required: - Substantially the whole German Navy would be involved. Earliest date by which force could be concentrated in west. Z plus 3 to 4 months.

(D) Operations in Central and Western Mediterranean.

M.I.D. 15 (22)

(i) Through Iberian Peninsula against Gibraltar and French North Africa. Land and air forces required - since these operations only likely to be contemplated by Germans to forestall or counter Allied action, they would have to employ such forces as they could muster at the time. Timing would similarly depend on the state of affairs then existing.

NFP (ii) Through North African ports against Egypt from west, possibly in conjunction with an attack through Turkey. Land force required - 7 divisions made up say as follows: - 2 German armoured divisions, 1 German motorised division, 1 Italian armoured division, 1 Italian motorised division, 2 Italian infantry divisions.

Assuming of Axis forces now in Lybia, equivalent of 1 armoured, 1 motorised and 2 infantry division will still be in area. These are included in above. Air Force required - the force set out in sub paragraph (B) above would cover this operation. Earliest date by which force in TRIPOLITANIA could be reinforced. Not using Tunisian ports - 3 months from date of embarkation. Using Tunisian ports - 1½ months from date of embarkation.

14. Above, putting into terms of CALENDAR, and assuming 15th February as earliest date on which substantial force can be withdrawn from Russia, gives earliest date for stage referred to above as follows:-

(a) 1. Earliest date of concentration on the south Russian sector 1st May.

2. Fall of Rostov 15th May.

3. Occupation of MAIKOP-TUAPSE area 15th June to 30th June.

4. Occupation of GROZNI area 15th July.

5. Occupation of BATUM - BAKU area, dependent on degree of resistance in Caucasia.

(b) 1. Concentration on the Turkish frontier 1st May.

2. Earliest date on which forces would reach the Syrian frontier - Turkey acquiescent - early August, Turkey resisting - incalculable.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

(c) Concentration of forces for invasion of U.K. - 15th May to 15th June.

0835A/30

N.I.D. 18 (22)

S.O.

EFP

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

~~SECRET~~

THE JOINT BOARD

Joint Intelligence Committee

Washington

SPECIAL STUDY NO. 1

JAPANESE LOGISTIC CAPABILITIES

22 January 1942

Copy No. 16

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

JAPANESE LOGISTIC CAPABILITIES

The initial reverses suffered by the United States and the British Empire compel a sharp revision of earlier estimates of Japanese capabilities. Many strategists had concluded that deficiencies in certain strategic raw materials and the widely dispersed efforts required to seize quickly areas capable of supplying them would handicap Japan in a major war lasting more than one year. It now appears that, although Japan's position is indeed vulnerable while she is in the act of seizing these materials, she may be able to do so, after which she will be able to withstand the strain of a long war.

Combat. (For supporting data, see Tab A.) Screened by the Japanese Battle Fleet and by capable air forces, scattered enemy task forces enjoy freedom of action. They have occupied Thailand, critical areas in Malaya and the Philippines, and footholds in Borneo and Celebes. Their further extension will probably include the barrier: BURMA - MALAYA - NETHERLANDS EAST INDIES - THE MANDATES.

For all enemy combat elements, the period of present operations is a critical one. The division of the Japanese Navy into numerous small fleet units and task forces during current operations exposes it to the risk of defeat in detail. Japanese aviation, supporting an offensive and operating over water and jungle, is believed to be suffering operational and combat losses of planes and personnel equal to, if not exceeding, production of replacements. Lines of supply, particularly of ammunition and material replacement, are stretched considerably. The risks can be justified only by the immense military and economic advantages which would ensue from occupation of the BURMA - MALAYA - N.E.I. - MANDATES barrier.

This barrier, seized by means of diverging task forces, would in turn provide a natural outpost line protecting a defensive zone wherein the islands are mutually supporting centers of resistance. (See attached chart.) Once organized, this zone would be difficult to penetrate. Based on it, the Japanese could envisage campaigns debouching to the south, east, or west, depending on Axis grand strategy and Allied defensive capabilities. Toward the south, the conquest of Australia would be a time-consuming operation. Toward the east, an advance would invite a decisive main fleet action. Toward the west, Japan's operations could be coordinated with those of Germany against the Middle East, looking to an eventual juncture.

Economic. (For supporting details, see Tab B.) Within the BURMA - MALAYA - NETHERLANDS EAST INDIES - MANDATES barrier, Japan would be virtually self-sufficient. She already has sufficient supplies of foodstuffs and coal. Control of the area envisaged would give her ample supplies of petroleum, rubber, aluminum, antimony, chromite, and tin; adequate supplies of lead and tungsten; and nearly sufficient supplies of manganese and iron ore. Further development of known deposits in the area would make her entirely self-sufficient in the last two items.

DECLASSIFIED
JCS memo, 1-4-74
By RHF, NLR, Date MAY 1 1974

By a slight extension of her control to include New Caledonia, Japan would gain an ample supply of nickel. Control of the existing iron production of either Australia or India would give her at once an ample supply of that commodity. It is significant of excellent war planning that in 1939 Japan laid in a ten-year supply of molybdenum, the only strategic mineral not available in the Far East.

Control of India would be necessary for the attainment of self-sufficiency in cotton, control of Australia for self-sufficiency in wool, but Japan's production of silk and rayon enables her to make up these deficiencies in large measure.

In considering Japan's ability to exploit the resources which would come under her control through the occupation of the B-M-N-M barrier, no reliance can be placed in the negative effects of a "scorched earth" policy. It is probable that Japan can repair damage to existing installations well in advance of the exhaustion of her reserves. Native labor will be more interested in the restoration of its normal means of livelihood than in any other consideration. In this connection, the Japanese is daily gaining "face" in proportion to its loss by the erstwhile white proprietors.

Neither can it be doubted that Japan has the industrial capacity to utilize the materials that would come into her control through occupation of the area under discussion. Since 1929 her government has promoted the development of war industries, with striking success. The principal expansion has been in ship-building, the manufacture of machinery, machine tools, instruments and chemicals, the processing of metals, and the production of electric power. Before 1939 Japan achieved self-sufficiency in shipbuilding and the production of certain machine tools, and was approaching it in most other essential war industries. She had gained the technical skill required to design and manufacture necessary plant equipment. The labor problem is solved by the weakness of unionism and the increasing skill of laborers. Finally, the immaturity of Japan's economy renders it more resilient, and therefore more adaptable to changing circumstances, than the more highly developed industrial systems of the democracies.

Possessing the requisite technical skill and assured of adequate manpower, Japan, given access to the raw materials available in the area within the barrier and time in which to exploit them, is capable of creating a formidable war economy, strategically well protected.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

Summary. From both the military and the economic point of view, the time required for Japan to seize, occupy and organize the area within the B-M-N-M barrier is vital. While she is doing so, both her military forces and her economy are vulnerable. After she has done so, and especially if she can do it quickly, both will be virtually invulnerable. Only by blocking (preferably reversing) present Japanese expansion can serious consequences be forestalled.

Ludwell L. Montague

Ludwell L. Montague
Major, Cavalry
Secretary, J.I.C.

DECLASSIFIED
JCS memo, 1-4-74
By RHF, NLR, Date MAY 1 1974

Tab A

COMBAT

1. Sea Capabilities.

a. The Japanese Fleet.

(1) Strength. Japan has an efficient, modern navy, supplemented by a large merchant fleet withdrawn from the trade routes of the world. The number of principal combatant ships, as of December 1, 1941, is estimated as follows:

11	Battleships, totaling	336,000	tons
18	Heavy cruisers, "	158,800	"
20	Light cruisers, "	98,855	"
2	Old light cruisers, "	8,800	"
6	Coast defense ships, "	52,330	"
130	Destroyers, "	168,058	"
12	Torpedo boats, "	6,868	"
73	Submarines, "	105,896	"
10	Aircraft carriers, "	150,720	"

The Japanese are believed to have lost one battleship, two light cruisers, six destroyers, and seven submarines since the beginning of hostilities.

(2) Organization, disposition, and mission. Japanese naval forces in the Pacific serve, in effect, to screen Japanese operations in the China Sea area from intervention from the United States. They are organized and disposed as follows:

The First Fleet, a main striking force composed of battleships, heavy cruisers, and destroyers, is based in the Marianas. Its primary mission is to prevent United States military and naval forces from moving west of the 180th meridian.

A Special Task Force, consisting of battleships, carriers, heavy cruisers, and destroyers, is based in the Bonin Islands. Its mission is to guard against raids by United States naval forces on bases in the main Japanese islands. It is a supporting force for the First Fleet.

The Fourth Fleet, based in the Carolines, consists of light cruisers, destroyers, submarines, and accompanying train vessels. Its mission is to scout movements of United States naval forces in the vicinity of the Mandates, and to seize by minor operations American and British island possessions in that area.

The Fifth Fleet, composed of a number of auxiliary patrol craft and mine layers, is based in home waters. Its mission is to guard the northern approaches to Japan.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

The Sixth Fleet is the submarine fleet based on the Marshall Islands. It consists of light cruisers, numerous submarines, and submarine repair vessels. Its mission is to harass by long-range submarine warfare American possessions and sea-borne communications in the East Pacific.

The Combined Air Force includes thirty-two land-based air groups at various localities in addition to ship-based squadrons.

Japanese naval forces in the China Sea and adjacent waters are covering and convoying expeditionary operations in that area. They are organized and disposed as follows:

The Second Fleet, composed of battleships, aircraft carriers, heavy and light cruisers, destroyers, and submarines, operates throughout the South China Sea and adjacent waters, in various task forces.

The Third Fleet, composed of heavy and light cruisers, destroyers, submarines, and seaplane carriers, operates in Philippine and Netherlands East Indies waters.

The Southern Expeditionary Fleet, consisting of one heavy cruiser, two light cruisers, and an unknown number of auxiliaries, is primarily engaged in convoy duty in the South China Sea.

Japanese naval forces in China are mostly obsolete craft guarding lines of communication.

The merchant marine is available to the navy, and many of its ships are capable of being converted into carriers, auxiliary cruisers and naval auxiliaries. Some converted carriers have been observed.

b. Logistics.

(1) Home and Advance Bases. Japan has adequate repair and docking facilities in her homeland for servicing the entire fleet. There are four major naval bases, located at YOKOSUKA, KURE, SASEBO and MAIZURU. There are also four secondary bases, located at OMINATO, CHINKAI, BAKO (Pescadores) and RYOJUN (Port Arthur). A number of minor bases have been established along the China coast and in Yangtze River ports. Limited docking and repair facilities are available in Formosa and the Mandates. The development of HAINAN ISLAND has progressed rapidly during the past two years and it now serves as an excellent base for light craft. The Japanese also enjoy the use of the French base at CAMRANH BAY, projecting their established base facilities southward into the heart of the South China Sea area.

(2) Conquered Bases. In the capture of HONGKONG, Japan obtained a valuable operating base with extensive repair and docking facilities. Corregidor denies the present use of CAVITE and MANILA BAY. The occupation of DAVAO and TUTU BAY (Jolo) affords excellent advanced bases for projected

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

southward operations. Footholds at TARAKAN and on northeastern CELEBES complete effective control of the Celebes Sea. The capture of KUCHING, Borneo, and PENANG, Malaya, permits a pincer movement against SINGAPORE, while PENANG is also an operating base available to submarines and surface raiders in the Indian Ocean. TAVOY, Burma, may be used for the same purpose.

(3) Prospective bases. The following naval bases and anchorages now serve the Allies in their defense of the island barrier. In possession of the Japanese they would serve the same purpose and also as bases for further conquests.

SINGAPORE is one of the world's finest naval bases, with complete facilities for the accommodation of an entire fleet.

SOERABAYA, eastern Java, is the principal Dutch naval base, occupation of which would give Japan control of the Java Sea.

AMBOINA is an operating base for light craft, Japanese control of which would jeopardize Allied communications via Darwin and Koepang.

TANJONG PRIOK (Batavia, western Java) is an excellent secondary base and supply depot.

BALIKPAPAN, eastern Borneo, is the principal oil port of the Far East. From it the Strait of Makassar can be controlled.

TJILATJAP, south Java, is a secure anchorage with limited upkeep facilities. It now has a floating drydock.

The following ports and bays are important as potential bases for local operations: SABANG, northwest Sumatra; PADANG, west Sumatra; LEBA-LEBA, Lomblem Island; McCLUER BAY, HUMBOLT BAY, and MERAUKE, west, north, and south New Guinea, respectively.

(4) Shipbuilding capacity. Given essential materials, Japan is at present able to construct naval vessels at a rate of at least 100,000 tons a year, and merchant vessels at a rate of at least 500,000 tons a year.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

2. Air Capabilities.

a. Strength. It is estimated that Japanese air strength on December 1, 1941, was as follows:

Tactical planes, active and reserve	- 5,353
Trainers, transports, etc.	- 1,403
Total	6,756

These figures do not include a few German planes known to be operating with the Japanese.

b. Distribution. The probable distribution of the Japanese air force (January 12) is as follows:

(1) Land-based planes.

	Fighter	Single Engine Bomber	Two Engine Bomber	Reconnaissance	Total
Hainan & Formosa	66	66	72	26	230
Japan & Korea	156	312	96	232	796
Indo-China	66	24	120	12	222
China-Manchukuo	138	276	84	81	579
Thailand	102	24	120	0	246
Philippines	90	0	24	16	130
N.E.I.	24	0	0	18	42
Malaya	138	12	102	0	252
Mandated Islands	18 *	0	54	58	130
Totals . . .	798	714	672	443	2627

* It is estimated that about 100 additional fighters are based on various islands of the Mandated group.

(2) Ship-borne planes.

	Fighter	Dive Bomber	Torpedo Bomber	Float Planes	Total
Based on 11 aircraft carriers	126	132	218	0	476
12 seaplane carriers	0	0	0	178	178
10 battleships	0	0	0	30	30
39 cruisers	0	0	0	91	91
12 misc. ships	0	0	0	17	17
	126	132	218	316	792

c. Losses and replacements.

Current plane losses, proved	250 per month
Current plane losses, estimated	400 per month
Current plane production, estimated	400 per month

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

There is considerable difference of opinion on the amount of Japanese plane production, estimates varying from 250 to 500 planes per month. It may be assumed that the current rate of net gain is slight, if, indeed, there is not a net loss. Even allowing for intensified effort in this direction, it is unlikely that Japanese plane production can exceed a rate of 600 to 800 planes per month during the next two years. If, however, Japan gains access to the material resources of the Indies, and is allowed two years in which to develop them, to train technicians, and to establish plant facilities, a rapid increase in the rate of production may be expected thereafter.

d. Personnel. Combined Army and Navy air personnel number approximately 100,000 officers and men. Pilots available on July 1, 1941, were:

	Officer Pilots	Enlisted Pilots	Total Pilots
Navy	1,200	2,850	4,050
Army	2,050	1,850	3,900
			7,950

Probably no more than 5,560 of these are first-line pilots. By American standards, Japan can produce approximately 360 pilots per month with her 1,300 training planes. The production of first-line pilots must be somewhat less. Assuming plane losses of 400 per month and the average loss of one pilot per plane, at present Japan cannot produce sufficient pilots to meet current losses.

e. Summary. At present Japan is expending planes and pilots in numbers approximately equal to or even exceeding her production of replacements. If, however, she thereby gains control of the Indies, she can in time recoup her losses and build up her air forces well beyond their present strength.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

3. Ground Capabilities.

a. Strength. Japan has 2,000,000 troops seasoned by a year or more of military service. The mobile combat elements of this force total approximately 1,374,000 men and are organized as 62 divisions (of 18,000 men), 23 independent brigades (10,000 men), 13 tank regiments (of 800 men, 150 tanks), and 5 cavalry brigades (of 3,500 men). These troops are well trained and equipped.

b. Dispositions. Of these units, 36 divisions, 20 independent brigades, 9 tank regiments, and 5 cavalry brigades are disposed in Japan and northern China, as follows:

Japan	5 divisions
Sakhalin	2 divisions
Korea	1 division
Manchuria	23 div., 7 tank regts., 4 cavalry brigades
N. & C. China	5 div., 20 ind. brig., 2 tank regts., 1 cav. brig.

Disposed to the southward are 25 divisions, 3 independent brigades, and 4 tank regiments, as follows:

Formosa	2 divisions
South China	3 divisions, 1 ind. brig., 1 tank regiment
Indo-China, Thailand	7 divisions, 1½ tank regiments
Malaya	5 divisions, 1 tank regiment
Sarawak, N. Borneo	1 division
Luzon	5 divisions, 1 ind. brig., ½ tank regiment
Davao area	1 division, 1 independent brigade
Mandates	1 division

c. Reserves and Replacements. Since August, 1941, Japan has called up an additional 1,000,000 men. Their present status is unknown, but, in addition to replacements for previously existing units, it is probable that 10 new divisions are being formed. There are indications that some of these divisions are short in artillery and heavy equipment. It is believed that they represent the limit of Japan's present ability to arm new troops.

In addition to the 3,000,000 men now called into service, Japan has a trained or partially trained reserve of 1,500,000, a considerable proportion of whom would be available to the army if equipment could be provided. It is estimated that 700,000 youths attain military age each year.

Japan controls the army of Thailand, which consists of an active force of 40,000 and a trained reserve of 200,000. Following precedent set in China, she will probably organize military units composed of natives of the conquered regions. Such troops have proved of no

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

value outside of their local areas, but they will release some Japanese forces from garrison duty for action elsewhere.

d. Capabilities. In the southern theater of operations Japan was able to dispose initially only 35 per cent of her organized combat strength, although she possessed the initiative. This force consisted of 25 divisions and other units totaling approximately 483,000 men. Her remaining strength was tied up in other theaters.

It is estimated that, if Russia and China maintain purely defensive attitudes, Japan can withdraw 10 divisions from northern areas to support further advances southward. These, together with 10 new divisions (subparagraph c), would raise her strength in the south to 843,000 men, her maximum potential strength in that region in present circumstances. This augmentation is dependent upon several contingencies, and at best would take some time to effect.

If Japan is permitted to seize and organize the BURMA - MALAYA - NETHERLANDS EAST INDIES - MANDATES barrier, her total ground capabilities would be increased enormously. The strength of her defensive position and the employment of local native forces would release many existing divisions. Of more significance is the consideration that the industrial development resulting therefrom would in time permit her to arm manpower now immobilized by lack of equipment. The ultimate effect would be to at least double the existing ground strength of Japan, enabling her to meet any subsequent challenge to her supremacy in that region, or even to adopt an offensive attitude elsewhere.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

Tab B

ECONOMIC

Attached is a tabulation showing Japan's requirements in certain strategic commodities and the resources which would become available to her through occupation of the area included in the BURMA - MALAYA - NETHERLANDS EAST INDIES - MANDATES barrier. Here is presented a more complete exposition of the situation with reference to two basic war materials, petroleum and iron.

Within the barrier, Japan could become more than self-sufficient as regards petroleum. Normally she needs 40 million barrels a year, of which 90 per cent must be imported. During total war her requirements will increase to about 50 million barrels. The annual production of British Borneo and the Netherlands East Indies amounts to 70 million barrels. The British and Dutch have promised to destroy their oil installations before they fall into Japanese hands, but Japan could probably restore wells and pipelines to operation within six to nine months and refineries within eighteen months. Japan has an oil reserve of 75 million barrels, sufficient for eighteen months of total war.

Lack of iron and steel has been Japan's greatest deficiency. Control of the Philippines, Indo-China, and Malaya would give her annually 3,200,000 tons of iron ore, out of the 3,700,000 tons which she must import. Access to the existing production of either Australia or India would give her an ample supply, as would further development of known deposits in the area within the barrier. The total deposit of iron ore in that area is estimated to be in excess of three billion tons, distributed as follows (in millions of tons): Japan, 100; Korea, 500; Manchuria, 700; China, 323; Philippines, 500; N.E.I., 1,000; and Malaya, 25. Most of the Philippine and N.E.I. ores are of high iron content (over 50 per cent) and are relatively easy to convert to pig iron and steel.

It is evident that securing an adequate supply of iron is Japan's most difficult economic problem, but it is also evident that it can be solved, given access to the resources of the Indies and given time in which to exploit them. The same concession of access and time would enable Japan to attain complete self-sufficiency in all other essential war materials. Only by a denial of access or time can the creation of a formidable war economy be prevented.

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

Commodity	Annual Needs: Domestic Production	Annual Needs: Imports	Supplies: Available in S.W. Pacific	Remarks
A. Non-Metalic	(Average)	(Average)	Br. Borneo 29,000 N.E.I. 384,000 Malaya 475,000 Indo-China 20,000	S.W. Pacific produces over 90% of the world's output.
Rubber	Nil	50,000 tons		
Coal	43,000,000	3,000,000	China 30,000,000 Indo-China, Malaya & N.E.I. 9,000,000	Ample
Petroleum	3,500,000 barrels	36,500,000 barrels	British Borneo & N.E.I. 70,000,000 barrels	Ample
Wool	Nil	200,000,000 pounds	Small supplies from China & Mongolia	Would need Australia-New Zealand (1,222,000,000 lbs.)
Cotton	Nil	2,000,000 bales	Small supplies from China	Would need India (4,800,000)
B. Metalic				
Aluminum	3,500 tons	46,500 tons	(Bauxite production 4 tons Bauxite - 1 ton aluminum) Indo-China 7,000 Malaya 94,000 tons N.E.I. 275,000 tons	Ample

DECLASSIFIED
JCS memo, 1-4-74
By RHP, NLR, Date MAY 1 1974

DECLASSIFIED
E. O. 12356, Sec. 3.3 or Sec.
NLR 101

Antinomy	124 tons	4,000 tons	China over 16,000 tons Indo-China - reserves of 250,000	Ample
Chromite	(average) 39,000 tons	(average) 13,500 tons	P.I. 125,000 tons New Caledonia 55,000 tons	Ample
Iron Ore	1,200,000 tons	3,700,000 tons	P.I. 1,200,000 tons Indo-China & Malaya 2,000,000 tons (x Australia 2,600,000) (x India 3,000,000)	Ample undeveloped deposits in N.E.I.
Pig Iron	2,220,000 tons	1,000,000 tons	Manchuria 700,000 tons (x Australia 1,100,000) (x India 1,785,000)	Iron ore of S.W. Pacific is refined in Japan
Lead	10,000 tons	90,000 tons	Burma 80,000 tons (x Australia 270,000 tons)	Would be practically self-sufficient with Burma, ample with Australia.
Manganese	67,000 tons	180,000 tons	P.I. 60,000 Malaya, N.E.I. 50,000 (x India 165,000)	With present S.W. Pacific production almost self-sufficient. Further exploitation would make her self-sufficient, with India ample.
Molybdenum	Nil	150 tons	Nil	In 1939 imported 2500 tons - 10 year supply.
Nickel	Nil	10,000 tons	N.E.I. 750 tons New Caledonia 17,500 tons	With New Caledonia would have ample.
Tin	2,000 tons	9,000 tons	Thailand 17,500 N.E.I. 45,000 Malaya 85,000	Ample
Tungsten	3,000 tons	5,000 tons	Malaya 1,500 tons Burma 6,000 tons (x China 18,000)	Ample

DECLASSIFIED
JCS memo, 1-4-74
By RHP NLR, Date
MAY 1 1974

DECLASSIFIED
E. O. 12356, Sec. 3.3 or S
NLR 101