MOBILITY AND UTILIZATION OF AMPHIBIOUS
ASSAULT CRAFT

Note by the Secretaries

The attached report, prepared by the Joint War Plans Com-
mittee, is forwarded to the Joint Chiefs of Staff for con-
sideration.

J. R. DEANE,
P. B. ROYAL,
Joint Secretariat.
MOBILITY AND UTILIZATION OF AMPHIBIOUS
ASSAULT CRAFT

Report by Joint War Plans Committee

1. An analysis has been made to determine a scheme of optimum use of amphibious assault craft for operations in 1943-44. This analysis is contained in Enclosure "A".

2. The conclusions derived from the Enclosure are as follows:

a. U. S. landing craft remaining after HUSKY can be shifted to:

(1) ROUNDUP to meet target date.
(2) ANAKIM to meet target date.

b. U. S. landing craft remaining after any other limited operation in the MEDITERRANEAN subsequent to HUSKY can be shifted to:

(1) ROUNDUP to meet target date provided they are released:

(a) From eastern MEDITERRANEAN - early December 1943
(b) From western MEDITERRANEAN - mid-December 1943

c. Losses incurred in operations in the MEDITERRANEAN subsequent to HUSKY can only be made good by diversions from the PACIFIC (See J.C.S. 291/1).

d. Amphibious assault craft from the SOUTH-SOUTHWEST PACIFIC can be ready at PEARL HARBOR for the MARSHALLS campaign:

(1) By 1 April 1944, if the NEW GUINEA-SOLOMONS campaign is completed about 1 January 1944.
(2) By 1 July 1944, if the BISMARCK campaign is completed about 1 April 1944.

e. Diversions from the SOUTH-SOUTHWEST PACIFIC to ANAKIM must be effected by mid-August; however, this will jeopardize the operations in the SOUTH-SOUTHWEST PACIFIC.

f. The most logical source of craft for ANAKIM is from U. S. production.

DECLASSIFIED
JCS 1105, 1-4-74
By HW, MM, Date FEB 10 1974
A17K02 - 1 -
Only LCT(5)'s and smaller types can at this time be sent to the SOUTH-SOUTHWEST PACIFIC to replace similar types moved from that area to ANAKIM.

Based on landing craft availability, extended amphibious operations in the MEDITERRANEAN subsequent to HUSKY would have the following implications:

1. EITHER:
   (a) Continue ROUNDUP build-up, and
   (b) Defer ANAKIM and all PACIFIC amphibious operations.

2. OR:
   (a) Defer ROUNDUP, and
   (b) Mount ANAKIM and amphibious operations presently directed in the SOUTH-SOUTHWEST PACIFIC.

3. OR:
   (a) Limited build-up for ROUNDUP, and
   (b) Limited amphibious operations in the SOUTH-SOUTHWEST PACIFIC, and
   (c) Defer ANAKIM.

4. OR:
   (a) Limited build-up for ROUNDUP, and
   (b) Mount ANAKIM, and
   (c) Defer all PACIFIC amphibious operations.

In the event that the main effort is directed against JAPAN after HUSKY, landing craft in the ATLANTIC-European Theater can be made available for PACIFIC operations by mid-January, 1944.
ENCLOSURE "A"

MOBILITY AND UTILIZATION OF AMPHIBIOUS ASSAULT CRAFT

ASSUMPTIONS

1. It is assumed that:

   a. HUSKY will be successfully completed by mid-August
      1943.
   b. HUSKY will be followed by (a) further operations in
      the MEDITERRANEAN (b) no further operations in the MEDITER-
      RANEAN.
   c. Landing craft will be assembled in the UNITED KINGDOM
      for an assault on the Continent with target date 1 April 1944.
   d. Objectives in the PACIFIC will be:

       (1) Ejection of Japanese from ALBUTIANS.
       (2) Seizure of MARSHALL ISLANDS.
       (3) Seizure of SOLOMONS and BISMARCK ARCHIPELAGO.
   e. ANAKIM will be executed beginning 1 November 1943.

2. For basic data see Appendix "D".

DISCUSSION

3. The necessity for a detailed tactical plan of the operation
   and its planned logistical support is a basic factor of primary
   importance in any study concerned with a determination of numbers
   and types of landing craft required for a given operation. One
   of the principal reasons that there are various types in ex-
   istence is the fact that certain types are more efficient under
   a given set of circumstances than others. It does not follow,
   however, that one type can be substituted for another simply
   because there are a variety of types available. While it is true
   that a given operation may call for certain types and, lacking
   those types, others can be substituted, this substitution should
   never be made unless two factors are known, namely (1) hydro-
   graphic conditions, and (2) the use intended. It should always

a17KH4 - 3 -

DECLASSIFIED
228-MAC-1-2-74
By RAY, RLR, Date FEB 19 1974
be borne in mind that, although there are many combinations that
can be used to lift a combat team and its supporting elements,
there is always one best method, and possibly a few other
acceptable methods. The decision must be based on the tactical
scheme of maneuver and detailed information on hydrographical
conditions.

4. Some of the factors that determine the number of landing
craft remaining after an operation and available for use else-
where are:

a. The loss rate. Little data exists upon which to base
an estimate of any value. Operations against several types
of defense such as strong or weak enemy air opposition (even
types of enemy aircraft have an influence), coast defenses,
beach defenses, mines, underwater obstacles, and anti-boat
guns must be conducted before estimates can be based upon
valuable data. In this connection there is not even agree-
ment on the loss rate for operational training as evidenced
by planning for HUSKY wherein the planners estimated 20%, the
Navy Department recommended about 5%, and the U. S. Army used
10% as a compromise.

Reports received 12 May 1943 indicate following training
loss rates:

<table>
<thead>
<tr>
<th></th>
<th>LST</th>
<th>LCI(L)</th>
<th>LCT</th>
<th>LCM(3)</th>
<th>LCVF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camp Edwards, Mass. (U. S. Army Base)</td>
<td>Nil</td>
<td>Nil</td>
<td>16%</td>
<td>20%</td>
<td>33%</td>
</tr>
<tr>
<td>Amphibian Lant (Norfolk)</td>
<td>For all types - 30% (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Reduced to 20% with experienced personnel.
(2) Norfolk has less experienced personnel than
Camp Edwards.

b. Use for logistic support. Immediately after an
amphibious attack, landing craft are required to land supplies
across the beach. The length of time landing craft of
practically every type except LCI(L)'s are retained for purely logistical support depends upon:

1. Availability of a port and port facilities.

2. The possibility from an equipment and hydrographical viewpoint of constructing a pier.

3. The feasibility and desirability of using seagoing types of landing craft to transport supplies from the base to the operating area.

c. Availability of salvage and repair facilities. A good percentage of the landing craft will probably require salvage and a large percentage overhaul after an operation. The availability of spare parts and assistance by shore establishments or tenders in providing mechanics and machinery will determine the time interval for overhaul. It takes more time to repair many landing craft than it does to repair a few. This is because of docking facilities, repair crews, time for shifting berth under own power or by toying, etc. All of these factors must be considered in determining time required for salvage and repairs.

5. Examination of capabilities of moving landing craft from one theater to another.

Bearing in mind the varying types required and the governing factors discussed in the preceding paragraph, an examination will be made of the possibility of moving landing craft from one theater to another (or from one campaign to another) for the purpose of determining availability at a certain time and place.

6. There are three main sources from which landing craft may be obtained, namely the ATLANTIC, the PACIFIC, and new production in the UNITED STATES. For convenience, these have been designated "Atlantic Pool", "Pacific Pool", and "Production Pool", and are discussed in Appendices "A", "B", and "C". Pertinent factors from these studies are set forth below.
ATLANTIC POOL
(See Appendix "A")

7. Upon completion of HUSKY, the great majority of the landing
craft in the ATLANTIC POOL will be in the vicinity of TUNISIA.

8. Problem: To determine the implications of moving landing
craft subsequent to HUSKY.
   a. To ROUNDUP.
   b. To ANAKIM.
   c. To PACIFIC.

9. To ROUNDUP.
   a. If no further operations are conducted in the MEDITERRANEAN
      subsequent to HUSKY, and the landing craft are released by mid-August, seagoing types can arrive in U. K. about
      mid-November, and shipborne types can arrive with the last
      echelon of the troops about 1 January 1944.
      b. If further operations are conducted in the MEDITERRANEAN,
         it is probable that shipping other than that used for the
         transfer of combat troop divisions to U. K. must be made
         available to transport the shipborne types of landing craft.
         If the shipping is made available, landing craft can be used
         without prejudice to the 1 April 1944 target date provided
         they are released for ROUNDUP as follows:
         (1) Eastern MEDITERRANEAN - early December 1943
         (2) Western MEDITERRANEAN - mid-December 1943
   c. Losses incurred in operations in the MEDITERRANEAN
      subsequent to HUSKY can only be made good by diversions from
      the PACIFIC or ROUNDUP (See J.C.S. 291/1).

10. To ANAKIM.
   a. If no further operations are conducted subsequent to
      HUSKY, and the landing craft are released by mid-August,
      following are estimated dates of availability for ANAKIM at
      CALCUTTA.

   DECLASSIFIED
   JCS 291/1 1-4-44
   BY B.E.B., H.A.R., Date
   FEB 19 1974
(1) Seagoing types - late October 1943
(2) LCT(5) - end of October 1943
(3) Other shipborne - mid-October to early November types

b. If the mounting of ANAKIM is predicated on using landing
craft from HUSKY, a target date of early November can be met.

a. It is obvious that landing craft committed to ANAKIM
can not be used in a ROUNDUP launched 1 April 1944. At the
earliest, these craft can arrive in U. K. early in August,
1944.

11. To PACIFIC.

a. On the assumption that the main effort will be directed
against JAPAN after HUSKY, landing craft from the MEDITER-
RANEAN can arrive at BRISBANE as follows:

(1) Seagoing types - early January, 1944
(2) Shipborne types - mid-January, 1944.

PACIFIC POOL
(See Appendix "B")

12. The greatest concentration of landing craft in the PACIFIC
is now in the SOUTH-SOUTHWEST PACIFIC area.

13. Problem:
To determine the implications of moving amphibious assault
craft from the SOUTH-SOUTHWEST PACIFIC area.

a. To PEARL HARBOR for the MARSHALL ISLANDS campaign prior
to the capture of the BISMARCK ARCHIPELAGO.

b. To PEARL HARBOR for the MARSHALL ISLANDS campaign
subsequent to the capture of the BISMARCK ARCHIPELAGO.

c. To ANAKIM.

14. TO PEARL for MARSHALLS prior to the BISMARCK CAMPAIGN.

a. On the assumptions that the NEW GUINEA-SOLOMONS opera-
tions are completed about 1 January 1944, amphibious assault
shipping sufficient for 2 divisions can be moved from the 
SOUTH PACIFIC and be ready in PEARL HARBOR about 1 April 1944.

b. If this diversion is made, no ship-to-shore operations 
can be conducted in the SOUTH or SOUTHWEST PACIFIC until 
completion of the MARSHALL ISLANDS campaign, but operations 
with a portion of one shore-to-shore division can probably 
be conducted.

15. TO PEARL for MARSHALLS subsequent to the BISMARCK CAMPAIGN.
   a. On the assumption that operations for the capture of 
      the BISMARCK ARCHIPELAGO are projected immediately subsequent 
      to the NEW GUINEA-SOLOMONS operations, and that their capture 
      will be completed about 1 April 1944, amphibious assault 
      shipping sufficient for 2 divisions can be moved from the 
      SOUTH PACIFIC and be ready in PEARL HARBOR about 1 July 1944.

16. To ANAKIM.
   a. In order to arrive in CALCUTTA and be available at the 
target date of ANAKIM, assault shipping must be released from 
operations in the SOUTHWEST PACIFIC by mid-August. The 
diversion of the above craft will occur at the peak of 
operations directed by J.C.S. 238/3/D, and will place opera-
tions in that area in jeopardy.

PRODUCTION POOL
(See Appendix "C")

17. The sailing port for LST's is NEW ORLEANS. The sailing 
port for LCI(L)'s is HAMPTON ROADS. LCT(5)'s and smaller 
types are assembled at various East and West Coast ports. The 
flow of shipborne types from the United States depends entirely 
on shipping available.

18. Problem:

To determine the implications of moving landing craft from 
the production pool:

DECLASSIFIED
308 memo, 1-6-74
By P.D., MLA, DIA
FEB 19 1974
8. To ROUNDUP.
9. To NORTH PACIFIC.
10. To CENTRAL PACIFIC.
11. To SOUTH-SOUTHWEST PACIFIC.
12. To ANAKIM.

19. To ROUNDUP.

a. The latest dates allocations from the production pool can be made in order to meet ROUNDUP target date are:

1) LST - late December 1943
2) LCI(L) - mid-January 1944
3) LCAT(5) and other shipborne craft* - mid-February 1944

*NOTE: Assumes shipping is immediately available.

20. To NORTH PACIFIC.

a. On the assumption that an operation to capture Kiska will be undertaken, allocations from the production pool must be made as follows:

1) LST - 16-1/2 weeks prior to mounting.
2) LCI(L) - 13 weeks prior to mounting.
3) LCAT(5) and smaller - 5-1/2 weeks prior to mounting.

NOTE: Decision has not been made as to types required.

21. To CENTRAL PACIFIC.

If the target date for landing craft to be available and ready to move from Pearl against the Marshalls is 1 April 1944, the latest date allocations of LST's can be made from the production pool is mid-December, 1943.

22. To SOUTH-SOUTHWEST PACIFIC.

a. If replacement landing craft must be on the area by the time those diverted to ANAKIM depart, allocations from the production pool must be made as follows:

1) LST's should have been made in mid-April, 1943.
2) LCI(L)'s should have been made in early May, 1943.
3) LCAT's and smaller types - must be made by late June, 1943.

DECLASSIFIED
23. To ANAKIM  
   a. In order to meet the ANAKIM target date, allocations  
      from the production pool must be made as follows:  
         (1) LST's - late June, 1943.  
         (2) LCI(L)'s - late July, 1943.  
         (3) LCT's and smaller types - late August, 1943.  
   b. See Appendix "E" for graphic presentation of transit time  
      for amphibious assault craft.
APPENDIX "A"

ATLANTIC POOL

1. Problem.
   To determine the implications of moving landing craft subsequent to HUSKY.
   a. To ROUNDUP.
   b. To ANAKIM.
   c. To PACIFIC.

2. Upon the completion of HUSKY, the great majority of landing craft in the ATLANTIC Pool will be in the vicinity of TUNISIA.

3. To ROUNDUP.
   a. The following table is a time study based on weeks required after the release of landing craft from operations in the MEDITERRANEAN until they become available in the UNITED KINGDOM.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Time Required in Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>2  6  -  1  -  3  12</td>
</tr>
<tr>
<td>LCI(L)</td>
<td>2  5  -  1  -  3  11</td>
</tr>
<tr>
<td>LCT(5)</td>
<td>1  4  2  1  3  3  14</td>
</tr>
</tbody>
</table>

NOTES:
1. Average time required for salvage and reassembling at a North African repair base.
2. Repair of battle damage and overhaul, considering facilities available.
3. Disassembly and stowage on board ship.
4. Transit time from NORTH AFRICA to U. K.
5. Assembly, repair of shipping damage, and tuning up.
6. Three weeks are required for training and rehearsal, after arrival in theater.

DECLASSIFIED
JCS memo, 1-4-74
By HEF, HLR, Date FEB 19 1974
b. In addition to LOT's, there will be a large number of shipborne types which must be moved from the MEDITERRANEAN to the U.K. If it is decided that about 6 divisions of troops will be moved from AFRICA to U.K. and their heavy equipment left for French troops or other forces in NORTH AFRICA, it will be possible to move these shipborne types on the vessels used for the movement.

c. Conclusions.

1. If no further operations are conducted in the MEDITERRANEAN subsequent to HUSKY, and the landing craft are released by mid-August, seagoing types can arrive in U.K. about mid-November, and shipborne types can arrive with the last echelon of the troops, about 1 January 1944.

2. If further operations are conducted in the MEDITERRANEAN, it is probable that shipping, other than that used for the transfer of combat troop divisions to U.K., must be made available to transport the shipborne types of landing craft. If the shipping is made available, landing craft can be used without prejudice to the 1 April 1944 target date provided they are released for ROUNDUP as follows:

   Eastern MEDITERRANEAN - early December 1943
   Western MEDITERRANEAN - mid-December 1943

3. Losses incurred in operations in the MEDITERRANEAN subsequent to HUSKY can only be made good by diversions from the PACIFIC or ROUNDUP (See J.C.S. 291/1).

4. To ANAKIM.

a. The following table is a time study based on weeks required after the release of landing craft from operations in the MEDITERRANEAN until they become available at CALCUTTA.
<table>
<thead>
<tr>
<th>TYPE</th>
<th>Salvage:</th>
<th>Repair:</th>
<th>Knockdown:</th>
<th>Trans.:</th>
<th>Assem.:</th>
<th>Train:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>0</td>
<td>(1)</td>
<td>2</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>LCI(L)</td>
<td>0</td>
<td>(1)</td>
<td>2</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>LCT(5)</td>
<td>0</td>
<td>(1)</td>
<td>2</td>
<td>1/2</td>
<td>4</td>
<td>(6)</td>
<td>3</td>
</tr>
<tr>
<td>Shipborne</td>
<td>1</td>
<td>2-4</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>(6)</td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTES:**

1. No salvage and a minimum repair period has been allowed in view of the relatively small number required in relation to the number used in HUSKY. It is estimated that a sufficient number of these types to meet ANAKIM requirements will be on hand in good running order.

2. Disassembly, and stowage aboard ship.

3. Transit time from BIZERTE to CALCUTTA.

4. Assembly, repair of shipping damage, and tuning up.

5. Three weeks required for training and rehearsal, after arrival in the theater.

6. Convoy speed of advance - 9 knots.

7. Considering number involved and facilities available.

b. Shipping must be provided for LCT(5) and other shipborne types.

c. Conclusions.

1. If no further operations are conducted subsequent to HUSKY, and the landing craft are released by mid-August, the following are estimated dates of availability for ANAKIM at CALCUTTA.

   a. Seagoing types: late October 1943
   b. LCT(5): end of October 1943
   c. Other shipborne types: mid-October to early November, 1943

2. If the mounting of ANAKIM is predicated on using landing craft from HUSKY, a target date of early November can be met.

3. It is obvious that landing craft committed to ANAKIM can not be used in a ROUNDUP launched on 1 April 1944. At the earliest, these craft can arrive in U.K. early in August, 1944.

**DECLASSIFIED**

JGS Memo, 1-4-74
By: [Signature]
Date: FEB 19 1974
5. To PACIFIC.

   a. Assumption.

      After HUSKY, the main effort will be directed against
      JAPAN.

   b. Conclusion.

      Using data shown in the table under ANAKIM, but increas-
      ing transit time, landing craft can arrive at BRISBANE as
      follows:

      (1) Seagoing types  -  early January 1944
      (2) Shipborne types  -  mid-January 1944.
APPENDIX "B"

PACIFIC POOL

1. Problem.

To determine the implications of moving amphibious assault craft from the SOUTH-SOUTHWEST PACIFIC area:

a. To PEARL HARBOR for the MARSHALL ISLANDS campaign, prior to capture of the BISMARCK ARCHIPELAGO.

b. To PEARL HARBOR for the MARSHALL ISLANDS campaign, subsequent to capture of the BISMARCK ARCHIPELAGO.

c. To AWAJIM.

2. To PEARL for MARSHALLS, prior to BISMARCK campaign.

a. Basic data.

(1) Three amphibious divisions involved in the initial SOUTH-SOUTHWEST PACIFIC operations.

2 equipped for ship-to-shore landing.
1 equipped for shore-to-shore landing.

(2) Two amphibious divisions required for MARSHALL ISLANDS campaign.

APA's, AKA's, steaming time @ 14 knots NOUMEA-PEARL 10 days.
LST's steaming time @ 9 knots NOUMEA-PEARL 15 days

b. Assumptions.

(1) The operations directed by J.C.S. 238/5/D (NEW GUINEA-SOLOMONS) will be completed about 1 January 1944.

(2) Three tenders or equivalent can be made available in the SOUTH and SOUTHWEST PACIFIC for overhaul of LST's.

(3) No major losses in APA's and AKA's assigned to the PACIFIC.

DECLASSIFIED
JCS memo, 1-4-74
BY RHP, NLA, Date FEB 19 1974
2. The following table is a time study based on weeks required after the release of craft from operations in the SOUTH PACIFIC until they become available at PEARL HARBOR.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Salvage</th>
<th>Repair</th>
<th>Transit</th>
<th>Training</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>APA 2</td>
<td>3</td>
<td>1.5</td>
<td>3</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>AKA 2</td>
<td>3</td>
<td>1.5</td>
<td>3</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>LST</td>
<td>2</td>
<td>4 (3)</td>
<td>2.5</td>
<td>3</td>
<td>11.5</td>
</tr>
</tbody>
</table>

NOTES:
(1) NOUMEA to PEARL HARBOR.
(2) Assumed to have full allowance of LCVP’s and LCM(3)’s in good repair.
(3) Assumed that spare parts are available in SOUTH-SOUTHWEST PACIFIC.
(4) Considering number involved and facilities available.

3. Conclusions.

1. Based on assumption (1), amphibious assault shipping sufficient for 2 divisions can be moved from the SOUTH PACIFIC and be ready in PEARL HARBOR about 1 April 1944.
2. If this diversion is made, no ship-to-shore operations can be conducted in the SOUTH or SOUTHWEST PACIFIC until completion of MARSHALL ISLANDS campaign, but operations with a portion of one shore-to-shore division can probably be conducted.

3. To PEARL for MARSHALLS, subsequent to BISMARCK campaign.

a. Basic data.
5 amphibious divisions, involved in BISMARCK campaign.
For steaming time, see paragraph 2 a. (2).

b. Assumptions.

1. Operations for the capture of the BISMARCK ARCHIPELAGO will be projected immediately subsequent to those directed by J.C.S. 238/5/D and said capture will be completed about 1 April 1944.
(2) Three tenders or the equivalent can be made available in SOUTH and SOUTHWEST PACIFIC for overhaul of LST's.

(3) No major losses in APA's and ANA's assigned to the PACIFIC.

C. Conclusion.

Based on assumption (1), amphibious assault shipping sufficient for 2 divisions can be moved from the SOUTH PACIFIC and be ready in PEARL HARBOR about 1 July 1944.

4. To ANAKIM.

a. The following table is a time study based on weeks required after the release of craft from operations in the SOUTHWEST PACIFIC until they become available at CALCUTTA.

<table>
<thead>
<tr>
<th>Type</th>
<th>Assembly and Repair</th>
<th>Transit (2)</th>
<th>Training</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>APA (1)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>AKA (1)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>LST</td>
<td>3 (2)</td>
<td>5</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>LCI (L)</td>
<td>3 (2)</td>
<td>4.5</td>
<td>3</td>
<td>10.5</td>
</tr>
</tbody>
</table>

NOTES:  
(1) Assumed to have full allowance LCVP, LCM(3).

(2) Assumed spare parts available in SOUTH-SOUTHWEST PACIFIC, and considering number involved and facilities available.

(3) HOUMEA-CALCUTTA.

b. Conclusion.

In order to arrive in CALCUTTA and be available for target date of ANAKIM the above craft must be released from operations in the SOUTHWEST PACIFIC by mid-August. The diversion of the above craft will occur at the peak of operations directed by J.O. 238/5/D and will place operations in that area in jeopardy.

DECLASSIFIED
JCS Memo, 1-4-74
By RRF, RFR, Date FEB 19 1974
APPENDIX "C"

PRODUCTION POOL

1. Problem.
   To determine the implications of moving landing craft from the Production Pool:
   a. To ROUNDUP.
   b. To NORTH PACIFIC.
   c. To CENTRAL PACIFIC.
   d. To SOUTH-SOUTHWEST PACIFIC.
   e. To ANAKIM.

2. Basic data.
   a. LST's require 50 days fitting out and shakedown; sailing port - NEW ORLEANS.
   b. LCI(L)'s require 35 days fitting out and shakedown; sailing port - HAMPTON ROADS.
   c. LOT(5)'s and smaller types are assembled at various East and West Coast ports. Their flow from U. S. depends entirely on shipping available.

3. To ROUNDUP.
   a. Time required in weeks.

<table>
<thead>
<tr>
<th>Type</th>
<th>F/O &amp; Shakedown</th>
<th>Transit</th>
<th>Assembly</th>
<th>Train(1)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>7</td>
<td>4 (2)</td>
<td>-</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>LCI(L)</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>LOT(5)</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Shipborne</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

   NOTES: (1) Training time allowed after arrival destination.
   (2) One 3-day stop enroute for fuel and provision.

   b. Conclusion.
   Latest dates of allocation which will meet ROUNDUP target date are:

   DECLASSIFIED
   JCS memo, 1-4-74
   By HRP, NL3, Date FEB 19 1974
LST - late December 1943
LCI(L) - mid-January 1944
LCT(5) and other shipborne craft* - mid-February 1944
* Assuming shipping is immediately available.

4. To NORTH PACIFIC.
   a. Assumption.
      An operation to capture KIJAVA will be undertaken.
   b. Time required in weeks.

<table>
<thead>
<tr>
<th>Type</th>
<th>F/O &amp; Shakedown</th>
<th>Transit (2)</th>
<th>Assembly</th>
<th>Train (1)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>7</td>
<td>6.5</td>
<td>-</td>
<td>3</td>
<td>16.5</td>
</tr>
<tr>
<td>LCI(L)</td>
<td>5</td>
<td>5</td>
<td>-</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>LCT(5)</td>
<td>-</td>
<td>1.5 (3)</td>
<td>1</td>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td>Shipborne</td>
<td>-</td>
<td>1.5 (3)</td>
<td>1</td>
<td>3</td>
<td>5.5</td>
</tr>
</tbody>
</table>

NOTES:
(1) Training to be conducted on West Coast, U. S.
(2) NEW ORLEANS-SAN FRANCISCO-DUTCH HARBOR, includes 1 week for assembly of convoy on West Coast.
(3) Assuming departure SAN FRANCISCO and shipping immediately available.

5. To CENTRAL PACIFIC.
   a. Assumption.
      (1) LST's for MARSHALL ISLANDS campaign must be provided from Production Pool.
      (2) Target date for departure from PEARL HARBOR to execute MARSHALL ISLANDS campaign is 1 April 1944.
   b. Time required in weeks.

<table>
<thead>
<tr>
<th>Type</th>
<th>F/O</th>
<th>Shakedown</th>
<th>Transit (1)</th>
<th>Train</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

NOTE: (1) NEW ORLEANS-SAN DIEGO-PEARL HARBOR, includes one 3-day period for fuel and provisions.
6. To SOUTH-SOUTHWEST PACIFIC.

a. Assumption.

Replacement landing craft must be in the SOUTH-SOUTHWEST PACIFIC by the time landing craft diverted to ANAKIM departs.

b. Time required in weeks.

<table>
<thead>
<tr>
<th>Type</th>
<th>F/O &amp; Shakedown</th>
<th>Transit (1)</th>
<th>Assembly</th>
<th>Train</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>7</td>
<td>7 (1)</td>
<td>-</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>LCI(L)</td>
<td>5</td>
<td>6 (2)</td>
<td>-</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>LCT(5)</td>
<td>-</td>
<td>3.5 (3)</td>
<td>1</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Shipborne</td>
<td>-</td>
<td>3.5 (3)</td>
<td>1</td>
<td>3</td>
<td>7.5</td>
</tr>
</tbody>
</table>

NOTES:  
1. NEW ORLEANS-PANAMA-BORA BORA-NOUMEA, includes two 3-day periods for fuel and provision.
2. HAMPTON ROADS-PANAMA-BORA BORA-NOUMEA, includes two 3-day periods for fuel and provision.
3. SAN FRANCISCO-NOUMEA and shipping is immediately available.

c. Conclusion.

Landing craft from the Production Pool to replace any diverted from the SOUTH-SOUTHWEST PACIFIC to ANAKIM must be allocated as follows:

- LST should have been made in mid-April, 1943
- LCI(L) should have been made in early May, 1943
- LCT(5) and Shipborne must be made in late June, 1943

7. To ANAKIM.

a. Time required in weeks.

<table>
<thead>
<tr>
<th>Type</th>
<th>F/O &amp; Shakedown</th>
<th>Transit</th>
<th>Assembly</th>
<th>Train</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>7</td>
<td>8 (1)</td>
<td>3</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>LCI(L)</td>
<td>5</td>
<td>6 (2)</td>
<td>3</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>LCT(5)</td>
<td>-</td>
<td>6 (2,3)</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Shipborne</td>
<td>-</td>
<td>6 (2,3)</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

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JCS memo, 1-4-43
By JCS, Gen. Staff
FEB 29 1974
NOTES:  
(1) NEW ORLEANS-BIZERTA-CALCUTTA.
(2) HAMPTON ROADS-BIZERTA-CALCUTTA.
(3) Assuming shipping is immediately available.

b. Conclusions.
Landing craft from the Production Pool for use in ANAKIM must be allocated as follows:

<table>
<thead>
<tr>
<th>Type</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>LST</td>
<td>late June, 1943</td>
</tr>
<tr>
<td>LCI(L)</td>
<td>late July, 1943</td>
</tr>
<tr>
<td>LCT(S) and shipborne</td>
<td>late August, 1943</td>
</tr>
</tbody>
</table>
APPENDIX "D"

BASIC DATA

1. Transit times calculated by assuming a speed of advance of 9 knots for LST's, and 11 knots for LCI(L)'s.

2. Each landing craft will require one week overhaul, with base or tender assistance, after an ocean voyage; it is estimated that 6 LST's and 12 LCI(L)'s can be overhauled by an AD, AS, AR, or ARL in one week provided spare parts are available.

3. LST's and LCI(L)'s should not be assigned to the same convoy as this would require the LCI(L)'s running at critical engine speed.

4. LCT(5) crew can knock down one LCT(5) in:
   - 8 hours after practice
   - 24 hours without practice

   Crew can assemble one LCT(5) in:
   - 48 hours without practice

5. LCT(5)'s heaviest weight when knocked down is 50 tons, which usually requires a dock crane for unloading.

6. Data on transportation of shipborne types of landing craft in cargo vessels and LST cargo vessels.

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Capacity of landing craft</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. Cargo Vessel (EC-2, C-1, C-2, C-3)</td>
<td>12 - 36' Personnel landing boats (LCVF, LCP(R), LCP)</td>
</tr>
<tr>
<td></td>
<td>* 3 - LCM(3)</td>
</tr>
<tr>
<td>U. S. Cargo Vessels (EC-2, C-1, C-2, C-3)</td>
<td>.12 - 36' Personnel landing boats</td>
</tr>
<tr>
<td></td>
<td>** 6 - LCM(3)</td>
</tr>
</tbody>
</table>

* Can be handled by booms normally installed in the cargo vessel.

** The additional 3 LCM(3) can be loaded if movement is made from base-to-base with dock cranes to lift the 22 L. Ton LCM(3).

DECLASSIFIED
JCS memo. 1-4-74
By RIC, Inc., Date FEB 10, 1974
The following combinations can be lifted:

a. 1 - LCT(5), 1 - LCM(3), 3 - LCVP
b. 1 - LCT(5), 7 - LCVP
c. 15 LCVP
d. 4 LCM(3), 3 LCVP