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Naval Aide's Files
A-16 General Correspondence, May 4, 1962-December 11, 1944
SECRET

MEMORANDUM FOR

THE SECRETARY OF THE NAVY

August 12, 1942.

In view of the latest developments in the Southwest Pacific, I should like to have a study made in regard to two problems, both relating to task forces engaging in a limited objective operation.

1. Should the Navy consider using, in part or in whole, 5 of the new 2,000 ton D.D.s. in place of 1 C.A. or C.L.? This problem would assume, of course, the use of C.Vs. by our own forces and by enemy forces as well.

2. What is the relative anti-aircraft total fire of 5 of the new D.D.s., with full anti-aircraft batteries, as against the total anti-aircraft fire by one of the latest type C.As. or C.L.s.?

In such an evaluation weight should be given to the fact that 5 new D.D.s. can be completed in about one year, whereas one C.A. or C.L. cannot be completed for about two years.

F. D. R.

Copies to:

Admiral Leahy
Admiral King
September 16, 1942.

MEMORANDUM FOR

ADmiral Leahy

I do not know who in the Navy Department prepared this reply, but when you read it and re-read it you will find it is no reply at all.

There is one exception to this. At the end of the second page and the top of the third page the comparison between three cruisers and 9 2100-ton destroyers begins to look favorably to the destroyers.

Even that is not a wholly fair picture because on a tonnage basis three CAs or CLs would be equal to twelve or thirteen DDs. In the last analysis, there are only two advantages that three CAs or three CLs have over twelve DDs:

(a) 8 inch or 6 inch guns, to be used against enemy surface craft.

(b) Greater ability to maintain speed in seaway.

I still feel that if I were in command of a carrier I would rather be protected by from eighteen to twenty modern DDs than I would by two or three CAs or CLs and with them six to ten modern DDs.

I think this should receive further study -- don't you?

F. D. R.
MEMORANDUM FOR THE PRESIDENT:

Via: Admiral Leahy.

Subject: Composition of Carrier Task Groups - Cruisers vs 2100-ton Destroyers.

Reference: Your memo of August 12th.

1. Copies of the reference were sent by your office to Admiral King and to Admiral Leahy, the latter then discussing the matter directly with Admiral King. This reply was prepared in the Headquarters of the U.S. Fleet.

2. The normal composition of a carrier task group is 1 CV, 2-3 CAs or new CLs, and 6-10 modern DDs. This composition is based on the premise that circumstances are likely to arise where the carrier is subjected to:

   (a) air attack by bomb or torpedo, as from land-based or ship-based plane;

   (b) torpedo attack by submarine;

   (c) surface attack by gunfire, as from cruisers or other surface ships.

3. The CV herself can, to some degree, ward off air attack by use of her own planes and battery, but requires assistance in countering submarine and surface attack. The cruisers (CAs or new CLs) provide protection against surface attack and against air attack. The destroyers provide protection against submarine and air attack and, to some degree, against surface attack.

4. The concept - and the effect - of the composition of the normal carrier task group is therefore one of teamwork, offensive as well as defensive, and so is not to be viewed from anti-aircraft considerations alone, as anti-submarine and anti-cruiser considerations must enter into its composition. Further, considerations of weather,
MEMORANDUM FOR THE PRESIDENT:

Via:        Admiral Leahy.

Subject:    Composition of Carrier Task Groups - Cruisers vs 2100-ton Destroyers.

Sea conditions, low visibility, etc., must be included in order that we may be reasonably prepared for eventualities.

5. In the carrier group, the cruisers are disposed relative to the carrier so as to cover known or suspected "danger bearings" of enemy surface or air forces. Destroyers are disposed so as to counter submarine and/or air attack; their disposition is flexible and their positions are diversified as necessary to counter the type of attack most likely to be expected. When the number of destroyers per carrier task group can be increased or is as large as 8-10, it may be practicable to use from 3 to 5 of them against surface attack.

6. The new 2100-ton DDs are expected to be employed in carrier task groups as they become available and as operating needs and circumstances permit. The armament of these ships, and that of the CAs and new CLs is:

<table>
<thead>
<tr>
<th>2100 ton DD</th>
<th>CA</th>
<th>CL (new)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface:</td>
<td>5 5 inch</td>
<td>9 8 inch</td>
</tr>
<tr>
<td>Torpedoes</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Anti-air:</td>
<td>5 5 inch</td>
<td>8 5 inch</td>
</tr>
<tr>
<td></td>
<td>4 40 mm</td>
<td>16 40 mm</td>
</tr>
</tbody>
</table>

Note 2: Torpedoes

N. B. - (1) 20 mm. AA guns are considered useful primarily for own ship defense.
(2) New CAs have AA battery of 12 5 inch and 16 40 mm. in 4 quadruple mounts.

7. The comparison between 3 CAs or new CLs and 9 2100-ton DDs, as to anti-aircraft fire alone, is:

<table>
<thead>
<tr>
<th></th>
<th>Cruiser</th>
<th>Destroyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of gun platforms (or gun groups)</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>
MEMORANDUM FOR THE PRESIDENT:

Via: Admiral Leahy.

Subject: Composition of Carrier Task Groups - Cruisers vs 2100-ton Destroyers.

<table>
<thead>
<tr>
<th></th>
<th>Cruiser</th>
<th>Destroyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 5 inch</td>
<td>24 for CA; 36 for CL (Note 1)</td>
<td>45</td>
</tr>
<tr>
<td>Total 40 mm</td>
<td>48</td>
<td>36</td>
</tr>
</tbody>
</table>

Secretary of the Navy.

Frank Knox
Folder:
Naval Aide's Files
(A2-3) General, August 1942-January 1945
MEMORANDUM for the President.

Via: Admiral Leahy.

Subject: Composition of Carrier Task Groups.

References: Your memos of August 12 and September 16.

1. The questions presented in your memorandum of August 12 were referred to the General Board for study and report. For your convenience, the views of the Board are digested herein.

2. The explicit reply to the second question in your memorandum of August 12 is as follows:

Relative AA Total Fire of 5DDs vs 1CA or CL

<table>
<thead>
<tr>
<th>Type</th>
<th>No.</th>
<th>6&quot; CL</th>
<th>5&quot;/38</th>
<th>40 mm.</th>
<th>20 mm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA - &quot;Baltimore&quot;</td>
<td>1</td>
<td>9</td>
<td>12</td>
<td>4 Quads</td>
<td>13</td>
</tr>
<tr>
<td>CL - &quot;Cleveland&quot;</td>
<td>1</td>
<td>12</td>
<td>12</td>
<td>2 Quads</td>
<td>17</td>
</tr>
<tr>
<td>DD 2050 ton</td>
<td>5</td>
<td>--</td>
<td>25</td>
<td>10 Twins</td>
<td>20</td>
</tr>
</tbody>
</table>

These figures are based solely on numbers of guns installed. The actual fire power realized therefore depends on such variables as disposition of ships in formation, bearing and type of target (horizontal bomber, dive bomber, torpedo plane).

3. The first question in your memorandum of August 12, in spite of the fact that, ton for ton, a modern destroyer can put up a heavier AA fire than any other type, is answered in the negative, for the reason that the question can not be viewed from antiaircraft considerations alone. The other considerations, of diverse nature, which are, in the aggregate, of much greater weight than AA fire power are:

(a) Carriers are highly vulnerable to shell fire and torpedo attack, and regardless of combat conditions in the air, they need protection from high speed surface ships. This has led to the formation of "carrier groups", and it is the carrier group, rather than the carrier alone, that forms a unit of a task force.
MEMORANDUM for The President.

Via: Admiral Leahy.

Subject: Composition of Carrier Task Groups.

(b) Task forces, of which a carrier group more often than not forms a part, must be varied in composition according to the task to be performed. In some cases an all destroyer escort would be suitable. In others it would be unsuitable.

(c) A carrier’s defenses against air attack, in order of their effectiveness are:

1. her own planes
2. her own AA battery
3. AA fire from ships in company

(d) The comparative value of cruiser and destroyer protection against surface and submarine attack cannot be accurately evaluated. The former, for obvious reasons, are incomparably superior against surface attack and their planes are of great assistance at times against either. The latter have the advantage against submarine attack.

(e) Commanders of high echelons should have at their disposal any and all types of ships which now exist, to permit maximum flexibility in making up task forces to meet the wide range of requirements. To do this effectively they are likely to need destroyers, cruisers of all classes, and even fast battleships, in various combinations.

4. The present shortage of cruisers is critical. As more carriers become available, the situation in this respect will grow worse instead of better. The General Board therefore recommends against any change in the building program which would reduce the number of cruisers now projected or delay the completion of those under construction.

FRANK KNOX