

EXHIBIT No. 49

[1] In reply refer to Initials and No. Op-30C1-AJ
(3c) N20-12
Serial 09330

NAVY DEPARTMENT,
OFFICE OF THE CHIEF OF NAVAL OPERATIONS,
Washington, February 15, 1941.

From: The Chief of Naval Operations

To: The Commander-in-Chief, Pacific Fleet

Subject: Anti-torpedo baffles for protection against torpedo plane attacks, Pearl Harbor.

1. Consideration has been given to the installation of A/T baffles within Pearl Harbor for protection against torpedo plane attacks. It is considered that the relatively shallow depth of water limits the need for anti-torpedo nets in Pearl Harbor. In addition the congestion and the necessity for maneuvering room limit the practicability of the present type of baffles.

2. Certain limitations and considerations are advised to be borne in mind in planning the installation of anti-torpedo baffles within harbors, among which the following may be considered:

(a) A minimum depth of water of seventy-five feet may be assumed necessary to successfully drop torpedoes from planes. One hundred and fifty feet of water is desired. The maximum height plane at present experimentally drop torpedoes is 250 feet. Launching speeds are between 120 and 150 knots. Desirable height for dropping is sixty feet or less. About two hundred yards of torpedo run is necessary before the exploding device is armed, but this may be altered.

(b) There should be ample maneuvering room available for vessels approaching and leaving berths.

(c) Ships should be able to get away on short notice.

(d) Room must be available inside the baffles for tugs, fuel oil barges and harbor craft to maneuver alongside individual ships.

(e) Battles should be clear of cable areas, ferry routes, and channels used by shipping.

[2] (f) Baffles should be sufficient distance from anchored vessels to insure the vessels' safety in case a torpedo explodes on striking a baffle.

(g) High land in the vicinity of an anchorage makes a successful airplane attack from the land side most difficult.

(h) Vulnerable areas in the baffles should be so placed as to compel attacking planes to come within effective range of anti-aircraft batteries before they can range their torpedoes.

(i) Availability of shore and ship anti-aircraft protection, balloon barrages, and aircraft protection.

(j) Availability of naturally well protected anchorages within a harbor from torpedo plane attack for a number of large ships. Where a large force such as a fleet is based, the installation of satisfactory baffles will be difficult because of the congestion.

3. As a matter of interest the successful attacks at Taranto were made at very low launching heights at reported ranges by the individual aviators of 400 to 1300 yards from the battleships, but the *depths of water* in which the torpedoes were launched were *between 14 and 15 fathoms*. The attacks were made in the face of intensive and apparently erratic anti-aircraft fire. The eastern shore line of the anchorage and moorings were protected by numerous balloon barrages, but there was no trawler borne balloon barrage to the west. The torpedoes were apparently dropped inside of the nets, probably A/T nets.

4. It is considered that certain large bays and harbors, where a fleet or large force of heavy ships may be anchored and exposed with a large body of water on an entire flank, should have that flank protected by a series of baffles if the water is deep enough for launching torpedoes. The main fleet anchorage at Scapa Flow, for instance, has an A/T net extending slightly to the north of a line between Calf of Flotta and Cava Island protecting the main fleet anchorage. The depth of water where this net is laid is approximately 17 fathoms. On the other hand constricted harbors, in which practically all available space is taken up by anchorages, and which is relatively deep probably must depend upon other defense measures. It might be possible and practicable to provide in some places, which are not protected by relatively shallow water, anti-torpedo baffles

practically surrounding a limited [3] number of berths for large ships, such as battleships or carriers. An extreme example of this is furnished at the present time by the French at Dakar, where double nets surround the Richelieu; she is placed similarly as in a dry dock, and evidently would have to open a section of the net to be hauled clear. The depth of water at Dakar, however, is very shallow.

5. The present A/T nets are very expensive, extremely heavy, their heavy anchors and moorings take up about 200 yards of space perpendicular to the line of the net, take a long time to lay, and are designed to stand up under heavy weather conditions. There is apparently a great need for the development of a light efficient torpedo net which could be laid temporarily and quickly within protected harbors and which can be readily removed. It is hoped that some such net can be developed in the near future.

6. Recommendations and comments of the Commander-in-Chief are especially desired.

H. R. STARK.

Copy to: CinC Atlantic Fleet
CinC Asiatic Fleet

EXHIBIT No. 50

(At this point in Exhibit No. 50 there appears a routing slip bearing Cincus Routing No. 01883 and date of 15 February 1941. This routing slip will be found reproduced as Item No. 12, EXHIBITS-ILLUSTRATIONS, Navy Court of Inquiry. These illustrations are bound together following the printed exhibits of the Navy Court of Inquiry.)

[1]

SECRET

CinCpac File No.

UNITED STATES PACIFIC FLEET

U. S. S. PENNSYLVANIA, Flagship

PEARL HARBOR, T. H., December 3, 1941.

DEAR BETTY: We had your despatches in regard to reinforcing the outlying islands with Army pursuit planes and Army personnel. With regard to the use of Army pursuits on the island bases, some time ago we investigated the feasibility of putting some kind of fighters on the outlying islands and decided at the time that our best chance of quickly reinforcing the islands and to make the minimum demands upon the supplies in the island that we could send a minimum number of ground crews to Wake and Midway in order when the time came, to be in a position to fly off the Marine planes from a carrier or to send them direct from Pearl to Midway in the case of the SHIPs. At the time your despatch in regard to Army pursuits was received we had the WRIGHT at Wake discharging the Marine ground crews and she arrives at Midway tomorrow, December 3, to discharge Marine ground crews there.

Balsey, in the ENTERPRISE, with three heavy cruisers and a squadron of destroyers, will fly off 12 Marine fighting planes for Wake tomorrow morning after which he returns to Pearl. We have been covering his advance by 2 VP squadrons operating from Johnston, Midway and Wake. Upon the completion of the movement we now plan to return one VP squadron to Pearl and leave the other one at Midway awaiting further developments. I will hold the Marine SHIPs at Pearl awaiting further developments as they can fly under their own power from Pearl to Midway.

During all the period that I have been in command the question of the development of supply and defense of these outlying bases has been a very difficult one. We cannot expect to supply Wake quickly and expeditiously until we have a space to put a ship alongside for loading and unloading. The Commandant of the District has been and is exerting every effort to obtain this objective. As you know, ships have been delayed in unloading at Wake for as long as 28 days, due to bad weather, and it is not unusual for a ship to take as much as 7 or 8 days. This, in the face of any opposition, presents an impossible situation. Present fac-