
1.0

PURPOSE AND NEED

1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

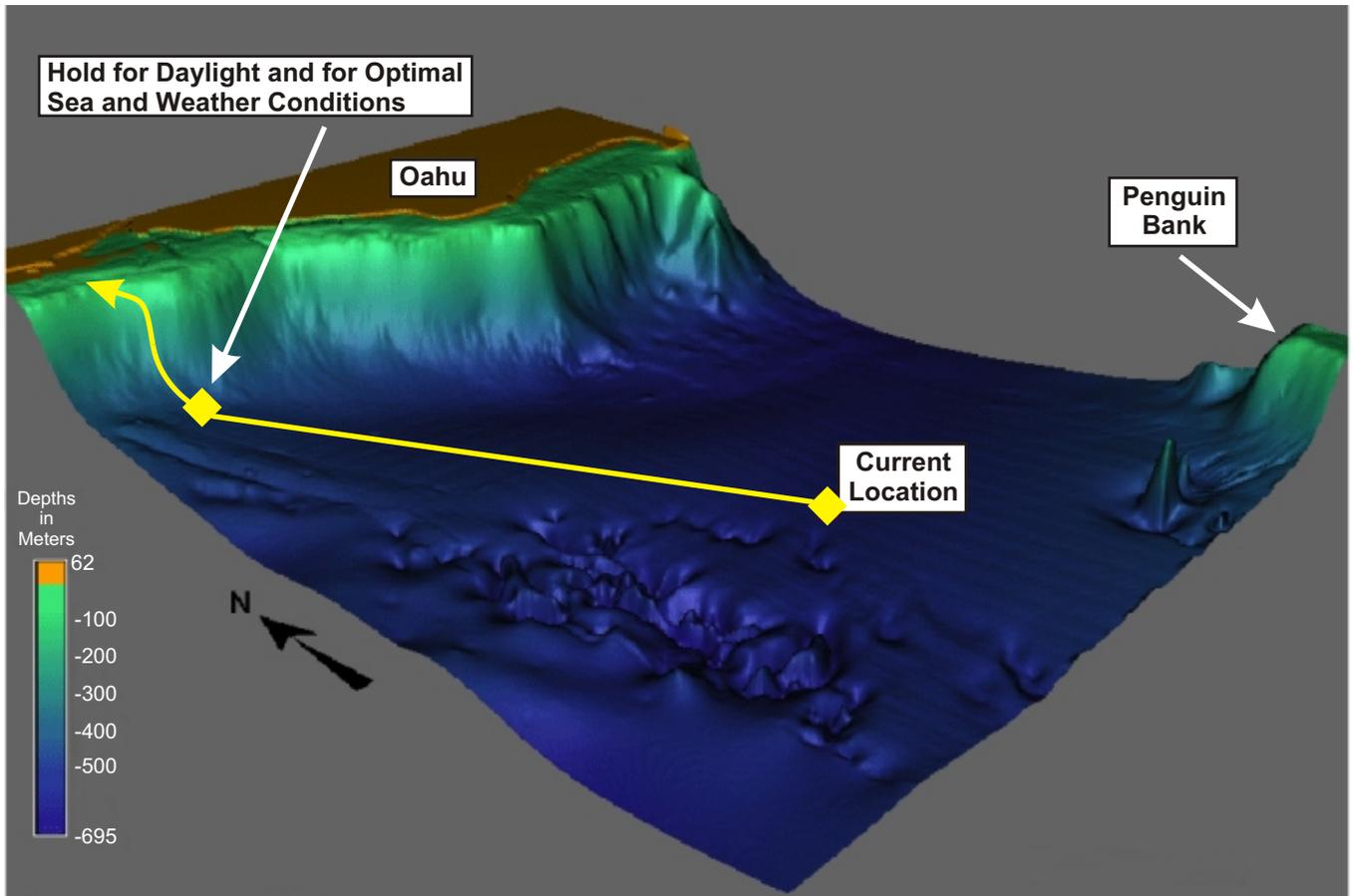
1.1 INTRODUCTION

The National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code Section 4321 *et seq.*); the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Sections 1500-1508); Department of Defense (DoD) Instruction 4715.9, *Environmental Planning and Analysis*; and Naval Operations Instruction (OPNAVINST) 5090.1B, *Environmental and Natural Resources Program Manual* direct Navy officials to consider environmental consequences when making decisions to authorize or approve major federal actions. The Navy has complied with all applicable Executive Orders including consideration of the environmental effects of its actions outside the United States or its territories under the provisions of Executive Order 12114, *Environmental Effects Abroad of Major Federal Actions*. The Commander In Chief, U.S. Pacific Fleet (CINCPACFLT) has prepared this Environmental Assessment (EA) to analyze any potential environmental impacts associated with *Ehime Maru* relocation and recovery operations.

1.2 BACKGROUND

On February 9, 2001, USS *Greeneville* (SSN 772), a Los Angeles class submarine, collided with *Ehime Maru* (registration number 135174), a Japanese training and fishing vessel, approximately 9 nautical miles (17 kilometers) south of Diamond Head on the island of Oahu, Hawaii (figure 1-1). *Ehime Maru* sank in approximately 2,000 feet (600 meters¹) of water. The vessel is resting upright on the seafloor at 21 degrees 04.8 minutes North latitude, 157 degrees 49.5 minutes West longitude, outside of the state of Hawaii waters. At the time of the sinking, 26 of the 35 crewmembers were rescued. Following an extensive air/sea search, and a sub-sea search and remote-controlled underwater visual inspection of the vessel, it is assumed that some, or all, of the nine missing individuals became trapped inside the vessel or went overboard as the ship went down.

1 Original measurements were received in either English or metric units and may have been approximations. For this reason, unless exact measurements were known, conversions throughout this document have typically used only one significant figure after calculations have been completed. For example, 1,000 feet is approximately equal to 300 meters, where the exact conversion would be 304.8 meters.



Source: U.S. Department of the Navy, 2001b

**Current Location of
*Ehime Maru***

Figure 1-1

Not to Scale

1_1CurrentLocation053101

Ehime Maru EA

Detailed remote camera and video surveys were conducted by the Navy, using Remotely Operated Vehicles (ROVs). The vessel is sitting upright on the seafloor but has obvious external hull damage. The most obvious exterior damage is in the forward port and starboard shell plating. The plating has visible buckling. In addition, because of the rapid sinking of *Ehime Maru*, and since the bottom of the vessel is not visible, experts suggest that a hole with an area of approximately 108 square feet (10 square meters) exists in the bottom of the hull at the stern of the ship. Also, it is assumed that major watertight bulkheads were damaged by *Greeneville's* rudder, which allowed rapid flooding of *Ehime Maru*. Other obvious damage includes bending of the forward mast to port and minor shell plate buckling at the stern and bow. *Ehime Maru* sits with the stern buried up to 6 feet (2 meters) in the sandy bottom with the rudder and propeller not visible.

Although this recovery operation has been deemed technically feasible, the proposed engineering solutions are untested in this type of operation. Engineers and salvage experts have based their feasibility assessment upon estimates and calculations on the size of the hole in *Ehime Maru* and their considered opinion on the anticipated structural integrity of *Ehime Maru*. However, since they have done these calculations and estimates without having seen the damage to *Ehime Maru* (the vessel sits upright in 2,000 feet [600 meters] of water), there is some uncertainty as to the exact level of damage.

Although there are risks and potential structural damage that could prevent the Navy from successfully achieving its goal, the Navy is confident that it could lift and move *Ehime Maru* to a shallow-water site for recovery of the crewmembers and would make every reasonable effort to do so. At various critical points in the Proposed Action, structural failure could preclude continuation of the mission. Unplanned occurrences such as this would cause the Navy to reevaluate whether recovery operations should continue or be terminated based on feasibility and probability of crewmember recovery. Depending upon where a failure might occur and if the Proposed Action were stopped, the Navy would attempt to recover as many crewmembers, personal effects, and other objects as possible. To the maximum extent practicable, these objects would include the cargo nets, fishing hooks and long lines, rafts, rigging on the masts, and any other obstacles that could cause a future impact to the marine environment. Extreme structural damage, if present, could prevent the vessel from being moved intact and thus would prevent the Navy from completing the planned recovery operations. This recovery operation is not without risks, and there is no guarantee of success.

Because of the nature of the Proposed Action and its uniqueness, engineering methods continue to mature. As specific changes are developed they would be evaluated within the context of the Proposed Action. If the changes introduce a potential for environmental effects that are substantially different, then additional environmental documentation would be prepared.

The vessel's location at approximately 2,000 feet (600 meters) below the surface, its ship weight of approximately 830 tons (750 metric tons), and its damaged condition would make this the most challenging recovery effort the Navy has ever undertaken, as characterized in figure 1-2. The initial phases of the operation present the most technical difficulties; intact recovery of the vessel is likely but not certain.

1.3 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.3.1 PURPOSE

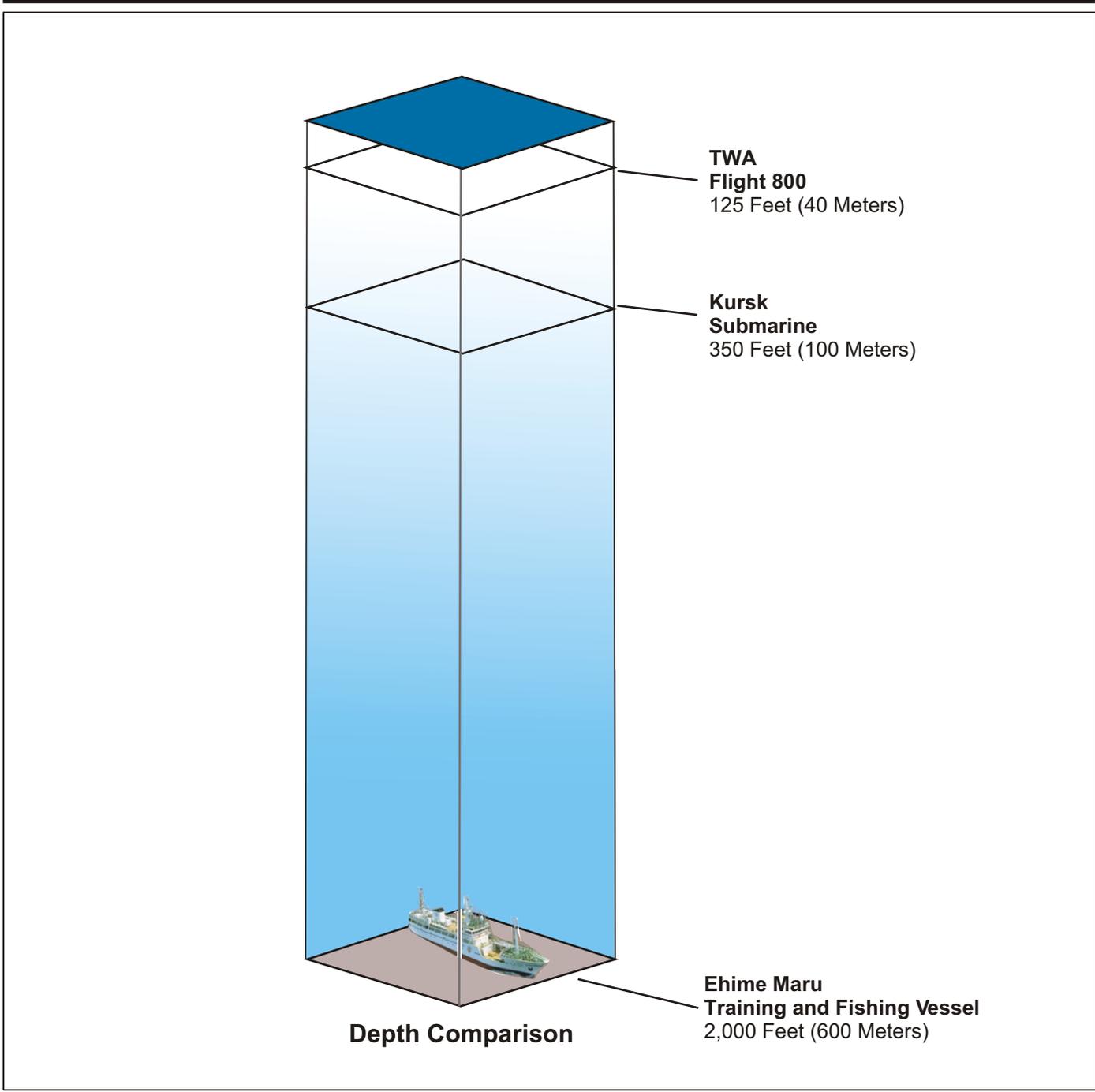
The purpose of the Proposed Action is the recovery of the crewmembers, personal effects, and certain unique characteristic components, such as the anchors, forward mast, placard, and ship's wheel from *Ehime Maru*, while limiting the impact on the environment. The Proposed Action would be a hazardous and complex deep- and shallow-water operation, because of the depth of the current location and the size of *Ehime Maru*. The proposed operation has been structured to maximize the probability of recovering crewmembers, personal effects, and unique characteristic components, while minimizing the risk to the divers, the environment, equipment, and other personnel involved. The purpose would also be to safely remove, to the maximum extent practicable, diesel fuel, lubricating oil, loose debris, and any other materials that may degrade the marine environment, and then relocate *Ehime Maru* to a deep-water site. This is not an operation to salvage the ship.

1.3.2 NEED

This action is needed to provide closure for the families of the missing crewmembers and their community. The vessel is currently at a depth of approximately 2,000 feet (600 meters) of water and is beyond diver capability to safely conduct recovery operations. In order to recover any crewmembers or personal effects, the ship would need to be relocated to a shallow-water site that optimizes diver safety and effectiveness.

1.4 AGENCY SUPPORT

Although the U.S. Navy is the proponent for the action, the complexity and short schedule for this action requires the active participation of and support from relevant State of Hawaii and U.S. government environmental agencies throughout the process. State agencies include the State of Hawaii Department of Health, Department of Transportation, and Department of Land and Natural Resources. Federal agencies include the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, National Marine Fisheries Service and Office of Response and Restoration, the Federal Aviation Administration (FAA), the U.S. Coast Guard, the U.S. Army Corps of Engineers, Honolulu District, and the U.S. Environmental Protection Agency. Technical expertise from these agencies and the data they provided has been used in addition to the normal consultation required to determine the potential for environmental impacts and to develop plans to minimize those impacts.



Comparison with Other Recovery Operations

Not to Scale

Figure 1-2

1.5 DECISIONS TO BE MADE

The decisions to be made, based on the analysis in this EA and public and agency input, are whether and how to proceed with the *Ehime Maru* recovery operation. The decision would seek to minimize risks to divers, operations personnel, and the public and minimize impacts to the environment. The decisionmaker for the Proposed Action is CINCPACFLT. Figure 1-3 is a diagram of the other decisions that have been or would be made during the various phases of the recovery operation.

The Executive Order 12114-related decision to be made by the Navy is whether to relocate *Ehime Maru* to a deep-water site in the open-ocean environment outside U.S. territorial waters.

THIS PAGE INTENTIONALLY LEFT BLANK