

US EPA ARCHIVE DOCUMENT

## **EPA REGION 10 SAFETY PLAN FOR SMALL BOAT OPERATORS**

### **INTRODUCTION**

This plan establishes general guidelines and procedures for the safe and efficient use of small boats used to support dive operations. It covers both government and leased private vessels, and small boats are defined for this plan as U.S. Coast Guard Class A or Class 1 vessels (i.e., boats less than 26 ft in length). Depending on the type and size of boat being used, the area of operation covered may include coastal waters out to 5 miles offshore and all interior waters.

A small boat should support diving operations when, in the judgement of the Regional Diving Officer or the Divemaster in charge of the dive operation, the diver's safety may be compromised by weather or sea conditions, boat traffic, or any other factor. Additional requirements and procedures may be required for dive operations in extremely remote areas, such as parts of SE Alaska and the Aleutian Islands.

All divers, particularly the Divemasters, should become proficient at boat operation.

### **BOAT OPERATIONS**

1. Prior to using a small boat, the operator will ensure it is seaworthy and in safe operating condition. The operator will inspect the boat and use a checklist to determine if the boat is fully operational and properly equipped.
2. At least one other person involved with the dive operation must have complete knowledge of operating the boat including the navigation and communication equipment.
3. If deteriorating weather conditions are of concern, the boat operator will monitor weather forecasts on VHF channels WX1, WX2, or WX3.
4. The boat should be positioned to provide immediate assistance to the divers in the water, including protecting them from other water craft.
5. If the dive tender loses visual contact with the dive team's bubbles, the boat operator will ensure the divers on the bottom are notified via the diver recall unit that their location has been lost. (The divers do not need to immediately surface, only to be extremely careful on ascent.)

6. If the small boat is anchored on station, it must be moored in such a way as to be able to slip moorage immediately, e.g., with a buoyed anchor line.
7. During adverse sea or weather conditions, the dive boat should not be anchored if there are divers in the water, except if there is an engine failure.
8. If unsafe sea or weather conditions develop, dive operations can be canceled or suspended by the Boat Operator or Divemaster.

### **BOAT EQUIPMENT**

In addition to the equipment on the checklist specific for each boat, the boat operator will ensure the following equipment is onboard:

1. Emergency equipment per USCG regulations, including an EPA Region 10 field first aid kit and drinking water;
2. Depending on the type and size of the boat used, a compass, VHF radio, bottom sounder, navigation lights, fog horn (hand held is OK), binoculars, and a hand held megaphone;
3. The VHF radio shall have working frequencies for monitoring commercial vessel traffic (Ch. 5A - Northern Puget Sound, Ch. 14 - Southern Puget Sound), bridge to bridge communication (Ch. 13), intership communication for US Government vessels (Chs. 81, 82 & 83), and distress calls (Ch. 16);
4. A working cellular telephone;
5. An anchor with lines suitable for holding the boat in areas where anchoring is reasonable;
6. Appropriate dive flags (red & white diver down flag and a blue & white code flag alpha);
7. A diver recall unit, with both tone signals and a microphone for direct verbal communication with the divers, shall be available to rapidly recall the divers;
8. A diver's ladder for ease of boarding, if the boat can not easily and safely be entered from the water by divers; and

9. Basic tools and spare parts for working on the engine and the boat.

## RESPONSIBILITIES OF BOAT PERSONNEL

**Boat Operator** is responsible for the vessel and all personnel on board, and shall:

(1) be involved with the early planning for the dive operation, or subsequently review the dive plan with the Divemaster; (2) brief the boat crew, including the dive team, on the location of the life preservers, first aid equipment, fire extinguishers, and, if necessary, the operation of the navigation and communication equipment; (3) know the helicopter Medevac instructions listed on the *USCG Medevac/Medic Incident Checklist*; and (4) file a float plan.

A diver may be the boat operator, but must not be the designated dive tender.

**Dive Team Members** shall assist the boat operator during launching, mooring, anchoring, or at any other time when the boat operator requests assistance.

## NUMBER OF PERSONNEL REQUIRED FOR OPERATING SMALL BOATS

Except under emergency conditions, the minimum number of personnel required to operate a small boat shall be as follows.

Boat Length	Distance Offshore <sup>1/</sup>	Boat Operator	Boat Hand
<26 ft	< 1/2 mile	1	-
< 26 ft	1/2 to 5 miles	1	1 <sup>2/</sup>

Note: <sup>1/</sup> None of the EPA Region 10 small boats should be used in waters of the Pacific Ocean. Further, extreme caution should be taken when operating in the St. of Juan de Fuca or Columbia River.

<sup>2/</sup> A diver may assume this responsibility

## ACCIDENT PROCEDURES

In the event of a boat or diving accident, the boat operator will be the primary person responsible for the vessel and crew, and shall:

1. Maintain a position at the helm seat and navigate the boat,
2. Be the primary person to contact the USCG on the VHF radio or cellular telephone,
3. Review the *USCG Medevac/Medico Incident Checklist* if helicopter Medevac occurs, and
4. Maintain radio or telephone contact with the USCG during helicopter evacuation. If the accident involves the boat operator, the Divemaster will designate a person to operate the boat.

The Divemaster or Alternate Divemaster, if the Divemaster is injured, will be the primary person responsible for:

1. Directing the administration of first aid for the accident victim, and
2. Communicating with the boat operator.

## EMERGENCY TELEPHONE NUMBERS

The following telephone numbers are appropriate for diving operations in the Puget Sound area. The Dive Plan will list emergency telephone numbers for other medical facilities (e.g., hospitals) in the area of operation.

### Virginia Mason Hospital, Seattle, WA

Emergency Room . . . . . 583-6433  
**Recompression Chamber** . . . . . 583-6543

### U.S. Naval Torpedo Station, Keyport, WA

**Recompression Chamber** . . . . . 360-396-2522 or  
360-396-2563  
After hours (ask for "Duty Desk Officer") . . . . . 360-396-2551

### U.S. Coast Guard, Seattle, WA

Search and Rescue . . . . . 206-220-7001  
Cellular Telephone . . . . . \*CG  
VHF Radio . . . . . Channel 16

### Divers Alert Network

**Emergencies Only** . . . . . 919-684-8111  
Medical Inquiries & Other Business . . . . . 919-684-2948