



San Francisco  
State University

## SMALL BOAT MANUAL

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## 1.0 Overview

### 1.1 POLICY

The policy of the San Francisco State University (SFSU) and Romberg Tiburon Center for Environmental Studies (RTC) Small Boat Program is to assure that all boats utilized for University educational, research and outreach activities are appropriately outfitted, reliable, safely operated and cost effective. The use of boats is essential to the teaching, outreach and research missions of SFSU. Therefore, every effort will be made to promote the availability of small boats and the instruction and guidance for safe operation of small boats.

### 1.2 CONTENTS

The Small Boat Manual contains policy and procedures for all boating operations. The SFSU Small Boat Manual includes four sections and appendices:

1. Overview - defines the policy and applicability of the SFSU Small Boat Program;
2. Responsibility - defines the roles of the Director, Principal Investigator, marine Superintendent, Cognizant Person and Operator in administering and performing the regulations of this manual;
3. Administrative Procedures - defines general procedures for conducting the SFSU Small Boat Program.
4. Operational Procedures - defines general guidelines for boats, stability and equipment;
5. Appendices - Vessels for use by authorized SFSU small boat operators, required safety equipment, approved training courses and record forms.

### 1.3 APPLICABILITY

This policy is applicable to any SFSU educational, research or outreach activity regardless of location or source of funding. It applies to all vessels whenever SFSU personnel are using a vessel under SFSU auspices, whether or not the institution owns the vessel.

Each faculty member, staff member or student involved in the use of boats for instructional, research or outreach programs of the University, is directly responsible for the safe and legal use of boats. Vessels used under SFSU auspices fall into four categories:

1. Boats at SFSU or RTC, available to multiple users;

2. Boats owned and/or operated by individual departments or programs for their exclusive use;
3. Fully insured privately owned boats used for SFSU education, research or outreach activities;
4. Boats chartered by SFSU faculty, staff or students.

## 2.0 Responsibility

### 2.1 DIRECTOR, RTC

The Director of the Romberg Tiburon Center for Environmental Studies has the ultimate authority for the SFSU Small Boat Program and its related activities. The Director is responsible for administration of the SFSU Small Boat Program and for approving changes to this manual.

### 2.2 SHIP OPERATIONS COMMITTEE

The Ship Operations Committee (SOC), appointed by the Director, RTC, is responsible for the general oversight of all boating operations. The SOC is responsible for reviewing and enforcing guidelines and standards for the SFSU Small Boat Program. In addition, the SOC is responsible for facilitating and improving the SFSU Small Boat Program by establishing directives to aid education, research and outreach activities. The membership of the SOC is representative of the SFSU small boat user community and conducts meetings every quarter to assess the condition of the SFSU Small Boat Program and recommend future direction.

### 2.3 PRINCIPAL INVESTIGATORS

Principal Investigators are personally responsible for assuring that all boat operations that are part of a program under their direction are conducted in accordance with this manual. Principal Investigators and instructors must determine that all individuals assigned to boat operations related to their projects are properly authorized according to this manual.

Principal investigators and instructors who operate privately owned boats used for SFSU education, research or outreach are required to ensure that those boats meet the same safety standards as all SFSU vessels, and to have on board the safety equipment outlined in Appendix II of this manual. They are also required to have the University added as an additional named insured on their insurance policy.

## 2 . 4 M A R I N E S U P E R I N T E N D E N T

The Marine Superintendent is responsible to the Director, RTC and to the SOC for the conduct of the SFSU Small Boat Program. Operational authority for the SFSU Small Boat Program, including certification of operators, approval of boat requests and float plans, maintenance of boats, and ensuring compliance with this manual by all operators of SFSU boats rests with the Marine Superintendent.

The Marine Superintendent shall suspend boating operations that are considered unsafe. The Marine Superintendent will ensure that all boats are in full compliance with U.S. Coast Guard requirements, with respect to equipment and safety procedures.

The Marine Superintendent in conjunction with the SOC are responsible for developing procedures to be used by SFSU students and staff who wish to charter a non-institutional boat. The procedures must be consistent with this manual. Prior to signing a charter agreement for operations in U.S. waters, the boat must be inspected for compliance with USCG standards and the standards outlined in this manual. Boats operated by SFSU personnel that are not owned by SFSU will be inspected not less than yearly with respect to safety equipment. The Marine Superintendent or designated representative may carry out these safety inspections.

## 2 . 5 C O G N I Z A N T P E R S O N

In order to insure the safety of boat operators and crew, it is imperative that a responsible “cognizant person” be identified prior to departing on any SFSU sanctioned boat excursion. The authorized SFSU small boat operator is responsible for identifying a cognizant person and for providing information in a float plan on how that person can be contacted. The responsible cognizant person will at a minimum:

1. Know the intended area(s) of operation and intended travel route;
2. Know the intended time of departure and return;
3. Remain available to receive notification until the boat and crew have returned safely.

## 2 . 6 B O A T O P E R A T O R

Only persons who have been authorized as SFSU Small Boat Operators may operate small boats under SFSU auspices, whether or not the boat is owned by SFSU. The designated boat operator is responsible for all aspects of boating operations, regardless of any senior personnel present in the boat. These responsibilities include, but are not limited to:

1. Safe transport of the vessel to and from the launch site, if applicable;
2. The safe navigation of the vessel to and from the site(s) of operation;
3. The safe operation of all equipment, either in the collection of data, or the handling of the vessel;
4. Insuring that all required operational and safety equipment is on board before getting underway and that it is properly cleaned and stowed upon return.

Failure to comply with provisions of the SFSU Small Boat Manual may be cause for the revocation or restriction of the operator's authorization. However, any operator may deviate from the requirements of this manual to the extent necessary to prevent or minimize a situation that is likely to cause death, serious physical harm, or major environmental damage. A written report of such actions must be submitted within 24-hours to the Marine Superintendent explaining the circumstances and justifications.

## 3.0 Administrative Procedures

### 3.1 GENERAL

The regulations in this manual must be observed wherever small boat operations are carried out under the auspices of SFSU. All operators must follow the provisions of the manual and all equipment used must conform to U.S. Coast Guard requirements.

### 3.2 AUTHORIZATION

To become an authorized SFSU small boat operator, one must demonstrate proficiency in safe boat handling and operations, knowledge of the "rules of the road", familiarity with the operation of safety equipment and understanding of the SFSU Small Boat Program outlined in this manual. To satisfy these requirements all operators must demonstrate to the Marine Superintendent or his/her designee, proficiency in the above requirements by means the following:

1. Be of at least 18 years of age;
2. Submit to the SFSU Office of Marine Operations proof of a completed course on boating safety (see Appendix III for a list of approved courses);
3. Submit to the SFSU Office of Marine Operations proof of current certification in Cardio-Pulmonary Resuscitation and Basic First Aid;

4. Submit to the SFSU Office of Marine Operations proof of completion of the SFSU course on Defensive Driving;
5. Sign a Liability Waiver/Indemnity Agreement as provided by the SFSU Office of Marine Operations;
6. Submit a Statement of Boating Experience to the SFSU Office of Marine Operations;
7. To the satisfaction of the SFSU Office of Marine Operations, demonstrate safe small boat handling skills and systems familiarization in the craft to be utilized by the operator as outlined in Appendix IV and in the Small Boat Operators Evaluation (Record Forms, Appendix V).

The Marine Superintendent has the authority to give limited authorizations to SFSU personnel that restrict operators to use of certain boats and/or in certain waters. Offshore operation (15 nautical miles from land or greater) and/or operation of vessels greater than 30' require a captains license and is not authorized.

### 3 . 3 R E - A U T H O R I Z A T I O N

If a small boat operator's authorization is revoked, they may be re-qualified after the operator complies with such conditions as the Marine Superintendent may impose. The small boat operator shall be given the opportunity to present his/her case to the Director, RTC and the Marine Superintendent before conditions for re-authorization are stipulated.

### 3 . 4 T R A I L E R I N G

To become qualified to tow a boat and/or trailer, the operator must demonstrate to the Marine Superintendent (or his/her assigned designee) the proper procedures for towing the boat and trailer over the road and have submitted proof of completion of the SFSU course on Defensive Driving.

### 3 . 5 R E C O R D K E E P I N G

The SFSU Office of Marine Operations is responsible for maintaining electronic and/or printed records of vessel operations including:

1. Current list of authorized SFSU Small Boat Operators;
2. Small boat maintenance reports and annual safety inspections;
3. Trailer maintenance reports and annual safety inspections;
4. Float plans;
5. Vessel logs;
6. Small boat equipment checklist;

7. Accident reports;
8. Damage reports.

Appendix V lists record forms currently in use by the SFSU Office of Marine Operations. Inspection of records is available by contacting the SFSU Office of Marine Operations.

### *Boat Reservations & Float Plan*

The reservation of any SFSU small boat is open to all authorized SFSU Small Boat Operators on a first come, first served basis. Vessel requests must be submitted 24 hours in advance of departure and are subject to approval based on vessel available, areas of operation and environmental conditions. To ensure reservation of a small boat, the request must be submitted by using the RTC/SFSU vessel request form, which can be found online at [http://rtc.sfsu.edu/marine\\_ops/vrf/vessel\\_request\\_form.htm](http://rtc.sfsu.edu/marine_ops/vrf/vessel_request_form.htm). Verbal or email requests are not guaranteed until the vessel use has been approved by the Marine Superintendent and the vessel has been scheduled on the SFSU/RTC web calendar (<http://rtc.sfsu.edu:8080/quest>). Contact the SFSU Office of Marine Operations for password-protected access to the vessel calendar.

All vessel requests must be accompanied by a float plan regardless of the duration or scope of the operation. The float plan is integrated into the vessel request web form. The minimum requirements of a float plan are:

1. The boat requested;
2. Planned date, time and place of departure;
3. Planned date, time and place of return;
4. Area(s) of operation;
5. Name of operator(s), passenger(s) and Principal Investigator;
6. Name and contact information (phone and email address) of cognizant person(s);
7. Communications contacts (cell phone, VFH radio channel, etc.);
8. Summary of work to be accomplished;
9. Summary of equipment to be deployed or retrieved;
10. Notification of SCUBA diving planned;
11. Acknowledgment of liability.

## *Small Boat Equipment Checklist*

The small boat equipment checklist is to be filled out by the authorized small boat operator prior to departure. This form prompts the operator to check the working condition of the vessels electrical and mechanical systems and required safety equipment. The form should travel with the operator during vessel use, then be submitted to the Office of Marine Operations upon return. Use this form to document any damage or equipment malfunction to the vessel that was noted during use. It is the sole responsibility of the operator to report any condition of equipment on a vessel that deviates from normal or can be considered unsafe by documenting this condition on the small boat equipment checklist and notifying the Marine Superintendent.

## *Accident Reports*

All boating accidents must be reported to the Marine Superintendent within 24 hours of the incident. Accident forms are available in the SFSU Department of Marine Operations. The Marine Superintendent will circulate this report to the Director, RTC and to the SFSU Department of Environmental Health and Safety. The Marine Superintendent shall investigate and document the accident and related personal injury and/or property damage and prepare a report for the Director, RTC and SFSU Department of Environmental Health and Safety.

## 3 . 6 C O M M U N I C A T I O N S

During vessel operation, scheduled communications by VHF radio and/or cellular phone must be maintained with the cognizant person recognized in the float plan, SFSU Marine Superintendent or agreed upon alternate. To initiate any change in the schedule that was submitted with the float plan, the Marine Superintendent (or assigned alternate) must be notified and changes confirmed as soon as possible. If the boat operator is unable to notify the cognizant person, Marine Superintendent or designated alternate, the float plan must be adhered to within the scope of maintaining the safety of the crew and vessel.

Failure to maintain scheduled communications may cause initiation of U.S. Coast Guard search and rescue procedures. Failure to follow communication procedures may be cause for suspension or revocation authorization to operate small boats.

## 3 . 7 W E A T H E R

Use of any boat is always contingent upon weather conditions. Responsibility for monitoring weather conditions prior to departure and during operations resides with the operator. When small craft advisories are issued by the National

Weather Service for the waters of a planned operation, the crew of a vessel that is scheduled for operations within that area shall consider postponing the cruise until more favorable conditions prevail. Special permission to operate may be requested from the Boating Safety Officer or the Vessel Operations Manager.

### 3 . 8 S C U B A D I V I N G

Any persons scuba diving from a SFSU boat are required to observe the provisions of the SFSU Diving Safety Manual ([http://rtc.sfsu.edu/dive/diving\\_program.htm](http://rtc.sfsu.edu/dive/diving_program.htm)). Diving by students, staff, and faculty of the university or with SFSU equipment as a necessary part of their research or occupation, and by other authorized divers under the supervision of the SFSU Scientific Dive Program as a necessary part of research, and any diving on UCD property constitutes diving under SFSU auspices.

The SFSU Diving Control Board (DCB) must approve all dive plans. The designated lead diver will be in charge of all diving operations. An SFSU authorized small boat operator remaining on board is required for dives deeper than 30 meters (99') in local waters.

### 3 . 9 S A F E T Y C H E C K S

#### *Prior to Departure*

Prior to departure, the authorized SFSU small boat operator will ensure the following steps are followed:

1. A cognizant person has been identified in the float plan and that person can be reached during the intended hours of operation;
2. Obtain a small boat equipment form from the SFSU Office of Marine Operations and complete all portions pertaining to pre-departure checks;
3. Equip the vessel with a water proof safety kit (Pelican case) designated for each vessel and verify the kits contents match the itemized list on the cover of the kit;
4. Perform a functional inspection of the boat, electrical and mechanical systems;
5. Assess the current and predicted environmental risks pertaining to weather conditions, tides, and remaining daylight;
6. Ensure the vessel is properly loaded and stable by verifying the total capacity of equipment and personnel does not exceed the maximum weight certification on the vessel safety plate;

7. Ensure that all passengers understand the location of safety equipment, can carry out emergency procedures for crew overboard, fire, abandonment and methods of seeking assistance.

### *After Return*

Upon return, the authorized SFSU Small Boat Operator will ensure the following steps are followed:

1. Thoroughly clean the vessel and leave all equipment in the same condition as when it was received. Stow safety equipment, Pelican case and lines in their proper areas;
2. Complete the small boat equipment form and leave a copy in the Office of Marine Operations;
3. Within 24 hours after arrival, inform the SFSU Marine Superintendent of any equipment problems or damage that has occurred during the cruise.

## 4.0 Operational Procedures

### 4.1 BOATS AND EQUIPMENT

All vessels and equipment used by authorized SFSU Small Boat Operators in US waters, regardless of ownership, will conform to U.S. Coast Guard requirements and to the standards set forth in this manual.

### 4.2 STABILITY

All motorboats used by authorized SFSU personnel should have an installed data plate that designates the number of people and weight capacity according to the manufacturer's specifications. It is the responsibility of the operator to stay within these limits and to have all weight evenly distributed so that the boat will trim properly. If the manufacturer's specifications have been altered, or if a platform was designed and constructed for specific research, the trim and stability modifications may be comprised. It is the responsibility of the Principal Investigator to verify the stability of any modification to the marine Superintendent.

### 4.3 EQUIPMENT

The operator shall be familiar with the operation of the equipment and shall inspect all emergency equipment prior to departure. The operator and/or crewmember shall notify the marine Superintendent of any malfunctioning equipment used during their operation.

It is the responsibility of the authorized SFSU Small Boat Operator and/or Principal Investigator(s) to replace or renew any equipment lost or damaged as a result of negligence or misuse by the operator. In the event of a disagreement as to responsibility for lost or damaged equipment, the Director, RTC will review the case and assign responsibility for replacing it.

**APPENDIX I  
LIST OF VESSELS**

VESSEL NAME	SIZE/CAPACITY	USE
Klamath	10 <sup>1</sup> / <sub>4</sub> Persons	Protected bays and creeks.
Boston Whaler	15 <sup>1</sup> / <sub>5</sub> Persons	Protected bays and shallow water.
Boston Whaler	19 <sup>1</sup> / <sub>6</sub> Persons	Semi-protected bays.
Twin Vee	21 <sup>1</sup> / <sub>8</sub> Persons	Open bays and long transit areas.

## APPENDIX II REQUIRED SAFETY EQUIPMENT

SFSU Boats operating in coastal waters shall carry at least the following equipment:

- One VHF radio (cellular phone recommended)
- One class I, II or III PFD for every person on board
- One “throwable” PFD with at least 50’ of line
- Fire extinguisher on all motorboats with all open spaces under decking
- Anchor and rode with ground tackle
- “Pelican case” (includes first aid supplies, mobile VHF radio and batteries, visual distress signals (VDSs), spare tools, audible signaling device, Flash-light)
- Alternate means of propulsion (paddles or kicker engine)
- Bilge pump and/or bailer & bailing bucket

## APPENDIX III LIST OF SMALL BOAT SAFETY COURSES

### *Online*

#### Boat Safe (recommended)

This Basic Boating Safety course is approved by the National Association of State Boating Law Administrators (NASBLA) and recognized as acceptable to the United States Coast Guard Recreational Boating Program. Most insurance companies give marine insurance discounts to persons successfully completing a NASBLA approved course.

This course covers basic boating safety concepts that you need to know if you intend to participate in water sport activities. It has been designed by marine educators to provide information to people who might not otherwise have the opportunity to receive it. You can progress at your own pace and on your own time schedule.

[http://www.boatingbasicsonline.com/course/boating/indexa.php?new\\_state=CA](http://www.boatingbasicsonline.com/course/boating/indexa.php?new_state=CA)

#### California Online Boating Safety Class and Boater Exam

This online boater safety course is approved by the California Dept. of Boating & Waterways. You can complete the course for boater safety certification to satisfy court-ordered mandatory boater education required by California law when a boater is convicted of a moving violation.

[http://www.boat-ed.com/ca/ca\\_internet.htm](http://www.boat-ed.com/ca/ca_internet.htm)

### *Print*

#### The California Boating Safety Course (recommended)

Produced and copyrighted by the Department, this correspondence course allows boaters to study at home at their own pace and covers state and federal boating law, rules of the road, boat handling, required equipment, navigational aids, accident reporting, and special topics.

Approved by the National Association of State Boating Law Administrators and recognized by the U.S. Coast Guard, this course includes an optional exam with two answer sheets. The exam consists of 50 questions. Once completed, the answer sheet can be forwarded to the Department for grading. Those who successfully com-

plete the course are awarded Certificates of Completion which are recognized by many insurance companies for discounts on boat insurance policies.

<http://www.dbw.ca.gov/onlineorder/onlineorder.asp>

## *CD ROM*

### *Maritime Smarts*

Officially recognized by the United States Coast Guard and approved by the National Association of State Boating Law Administrators! Smart Boating is the definitive professionals guide for the average boater!

This course is overloaded with lessons learned from over 25 years of licensed marine experience brought to you in one video based course and presented in 8 CD-ROM's for use on your computer. Smart Boating will take you from basic boating to the intermediate level with over 250 menu items, plus complete explanations for all right and wrong answers to over 290 engaging, interactive questions. There's no reason to worry about missing a class or interrupting a lesson since full progress tracking allows you to leave and return at your convenience. It even provides an approved Certificate of Completion for insurance premium discounts and/or State Certification.

<http://www.maritimesmarts.com/course.htm>

## *Practical*

### *Motorboat Operator Certification Course (recommended)*

This course gives participants the training required to permit operation of Service-owned watercraft. It reviews minimum requirements for safe operation of motorboats and includes a review of legal requirements, preparations, navigation, operations, emergency procedures, rescue, self rescue, trailering, fire suppression and basic seamanship. The course includes both classroom and on-the-water instruction. There is an on-the-water practical exam during which the student must demonstrate certain skills to pass as well as a written exam with a passing grade of 70 required.

[http://training.fws.gov/bart/mo\\_icc.html](http://training.fws.gov/bart/mo_icc.html)

APPENDIX IV  
SMALL BOAT TRAINING GUIDELINES

TBD

APPENDIX V  
RECORD FORMS