

BODEGA MARINE LABORATORY MARINE OPERATIONS GUIDELINES

These guidelines cover small boat and diving operations at Bodega Marine Laboratory (BML). This document is intended for faculty, staff, and students, whether BML residents or visitors. These guidelines are to be used with the UCD Diving Safety and Small Boat manuals. Divers/operators are expected to be familiar with the material in the appropriate manual(s) and to follow those policies.

SMALL BOATS

Prospective operators of BML small boats must demonstrate training and experience handling and working from small vessels to the UCD Diving/Boating Officer (DSO). The required forms and documents are listed in Appendix I. These forms are available from the DSO, hcfastenau@ucdavis.edu. Prospective boat operators must also schedule a check out cruise with the DSO or the BML Launchmaster, Karl Menard, (707) 875-1978, klmenard@ucdavis.edu. The check out cruise will be scheduled after Appendix I has been received by the DSO.

All US Coast Guard & California boating regulations must be observed when aboard vessels involved in BML business. (Refer to ABCs of the California Boating Law. Available from DSO or Launchmaster) This includes requirements for fire extinguishers, radios, lights, emergency signaling devices and life jackets, or personal flotation devices, "PFDs". At least one USCG approved type I, II, or III PFD must be on board for each person plus one "throwable" PFD. Type III PFDs are the minimum for use in coastal waters. Seat cushions shall not be considered as PFDs.

PFDs, VHF radios and GPS units can be borrowed from the boating or diving programs. Motorboats must have a radio or working cell phone when underway. Operators need to be aware that there are areas close to shore where radio and telephone communications are not possible. Required safety equipment is listed in Appendix II.

Float plans must be filed with the BML front office, or Launchmaster on weekends, before departure. Blank forms can be obtained from the BML front office, DSO or Launchmaster (Appendix III). Follow the float plan, and report in when returned. If BML does not hear from the boat within two hours of the original ETA the US Coast Guard will be notified. If the boat is going to be late the operator shall call the lab and advise them of the new ETA. Boats returning after normal working hours will make special arrangements to check back in.

The reservation of any BML boat is on a first come, first served basis. Filing a boat use request with the Launchmaster at least twenty-four (24) hours prior to departure facilitates reservation and insures the boat will be ready.

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, and/or winds are greater than 20kt, and/or wind chop of greater than 3' develop in a planned operation area, boaters shall postpone or cancel their operations until more favorable conditions prevail. Unless special permission to operate is granted by the Boating Safety Officer.

It is the vessel operator's responsibility to insure that the boat is seaworthy and all required operational and safety equipment is on board and works properly before departure. The operator is also responsible for safe transport, launch, operation, recovery and clean up of the boat. Any time/parts needed by BML staff to repair or clean a boat after use will be recharged to the operator.

BOAT TRAILERS

Boat trailers used in UCD business must meet California vehicle code requirements and the guidelines for operation and maintenance of university-owned trailers published by the UCD Business Service Office, Attachment 88-196. Copies of the UCD guidelines are available from the DSO or Launchmaster.

Some specific university guidelines include: Drivers license requirements and safety requirements as below.

Prior to use of any trailer the operator should determine that the following equipment is in good operating condition: head lamps, tail lamps, stop lamps, turn signals, clearance lamps, brakes, tires and mirrors as well as the horn, window and windshield wipers of the vehicle used to tow the trailer.

The safety equipment required when operating trailers is outlined below. Questions about these requirements as they apply to specific pieces of equipment can be referred to the University Police Department.

A. Lighting

All vehicles, except motorcycles, must have not less than two tail lamps turn signals, and two stop lamps. Tail lamps and stop lamps must be mounted not lower than 15 inches nor higher than 72 inches from the ground.

All trailers 80 inches or more in width must have at least one amber clearance light and at least one amber side-marker lamp on each side near the front, visible to the front and sides. At least one red clearance light and at least one red side-marker lamp are required to be mounted with 24 inches of the rear, visible to the rear and sides.

B. Brakes

Every trailer having a gross weight of 3,000 pounds or more, shall be equipped with brakes on at least two wheels. Towing vehicles shall be equipped with a single control which operates the motor vehicle as well as the towed vehicle's brake system.

C. Mirrors

Rear view mirrors on the left and right sides of the vehicle are required when the vehicle is constructed or loaded in such a manner that the driver's view is obstructed to the rear.

D. Load Restrictions

Every hitch or coupling device used as a means of attaching the towed and towing vehicles shall be properly and securely mounted and be structurally adequate for the weight drawn.

The drawbar, tongue, or other connection between the towing and towed vehicles shall be securely attached and structurally adequate for the weight drawn.

Every towed vehicle shall be coupled to the towing vehicle by means of a safety chain, cable, or equivalent device of sufficient strength to control the towed vehicle in event of failure of the regular hitch, in addition to the regular drawbar, tongue or other connection.

University policy requires that all trailers used in the course of University business be towed by a University-owned vehicle. Trailers which are owned by the University are automatically insured for general liability and physical damage in accordance with the University's Property Insurance Program (see P&P Manual Section 370-30) while being stored on University property. In order for trailers to be insured for physical damage coverage while being towed, on or off campus, departments must purchase insurance under the University's Miscellaneous Property Insurance Program (see P&P Manual Section 370-35). Forms are available by calling Benefits and Risk Management, 2-0797. Coverage must be arranged in advance. Reference: Directive #85-164.

SCUBA DIVING

The University California, Davis is an organizational member of the American Academy of Underwater Sciences. As such, UCD/BML adheres to the Academy's guidelines for underwater research and diver safety. Information on AAUS standards can be found at www.aaus.org.

Visiting divers will need to provide the UCD Diving Officer with documentation of experience and training as per Appendix 6 of the AAUS Diving Safety Manual. (**Appendix V here**) This usually is in the form of a letter of reciprocity from home campus Diving Officer, and includes:

- Scientific diver medical clearance
- Log of at least 12 openwater scuba dives in last 12 months,
 ≥ 1 during the last 6 months.
- First aid, CPR and oxygen administration in diving accidents training
- Annual regulator service
- Contact information in case of an emergency

Prospective divers must also sign a UCD Waiver and discuss their dive plans with the UCD Diving Officer, and may need to submit a Project Approval form to UCD Diving Control Board. (Appendix VI)

Divers will need to provide their own equipment, excluding cylinders. Minimum equipment is; full exposure suit for water temperatures of 8 to 12° C, regulator with alternate or redundant air source, gauges (SPG, time, depth, compass), buoyancy control device with manual and l/p inflation, mask, fins, and weights (weights may be rented in Bodega Bay). Drysuit, enriched air & dive computer use are allowed only if qualification & experience are detailed in the letter of reciprocity.

Air cylinder refills are \$2.00/ea. EANx cylinder refills are \$5.00/ea. Only cylinders used for diving under UCD auspices can be refilled. Recreational scuba and free diving are not allowed on UC property, or with UC equipment. There is a retail dive store in Bodega Bay that can supply rental equipment, and sport diving cylinder fills.

Contact Diving Safety Officer:

Henry Fastenau,
(707) 875-2032,
e-mail, HCFastenau@ucdavis.edu.
Fax #: (707) 875-2089.
Mail: BML, PO Box 247, Bodega Bay, CA 94923

APPLICATION FOR BML SMALL BOAT USE

PLEASE PRINT

Date _____

NAME: Last, First, Initial ID # Birthdate - Age Sex

LOCAL ADDRESS: Street City, State, Zip Phone # e-mail
 (Please indicate place you will receive mail most quickly with an *)

CAMPUS ADDRESS: Street City State Zip Phone #

PERMANENT ADDRESS: Street City State Zip Phone #

PERSON TO CONTACT IN EMERGENCY: See Appendix IV

_____ EXPECTED DATE OF GRADUATION _____
 BOARD OF STUDIES/RESEARCH GROUP

UNDERGRADUATE/GRADUATE (circle one)

Students: _____ Department _____
 Print name of Chair/Major or Thesis Prof./Researcher

Staff & Non-students: _____ Department/ORU _____
 Print name of Supervisor or Agency Administrator

BML small boat operations are allowed only by those who have need of this tool in their work or study. Only a person working or studying under the auspices of UCD/BML is eligible to operate BML small boats.

•State your need to operate small boats at BML:

Small Boat Experience

Vessel Type/Size	<i>Your role</i> <small>(ex. Capt., deckhand, scientist, etc.)</small>	Number of Days/Dates	Area(s) of Operation
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Other Aquatic Experience (swimming, diving, surfing, kayaking, etc.):

STATEMENT OF UNDERSTANDING FOR BML SMALL BOAT OPERATOR AUTHORIZATION

STANDARD: All areas of evaluation of prospective boat operators at UCD/BML are based upon the fundamental question: "Is this person performing in a satisfactory manner to plan, organize and carry out a safe boating operation, and clean and stow equipment, without direct supervision."

EVALUATION: Areas of evaluation include boat checkout, check-in (including washing and storing equipment), and operation (docking, turning, anchoring, "person-overboard" drill, radio communications, etc.) and a verbal or written review of information presented. Each area of evaluation must be passed to obtain authorization

AUTHORIZATION: The Diving/Boating Safety Officer will make a subjective decision at the end of the program and will inform you of your status.

Possible status upon completion of the program:

1. You may be fully authorized as a BML boat operator for a specific vessel type.
2. You may be given the option to complete specific additional activities in order to obtain BML authorization.
3. You may not receive any authorization.

RESPONSIBILITIES: You will have several responsibilities as a BML boat operator. These include:

1. Your individual responsibility for your own equipment and personal affects.
2. Your individual responsibility to return all boats and equipment in the same condition that you checked them out. You are responsible for all physical damages to boats or missing items, up to \$250, if in the opinion of BML, such damage was the result of the negligent operation of the boat. If equipment is returned and needs to be cleaned by BML staff, you may be charged for the time.
3. Your responsibility for your own safety and the safety of others around you.
4. Your responsibility for filing a cruise plan in advance of your proposed cruise plan, reserving equipment, returning equipment on time, reporting any damages or missing items and completing the appropriate boat logs.

STATEMENT: I have read, had explained to me, and understand the above.

Signature: _____

Date: _____

REQUIREMENTS FOR BML BOAT OPERATOR AUTHORIZATION

Application/History of Boating.....	Received _____
Statement of Understanding/Waiver, Release and Indemnity.....	Received _____
BML Boating Examination	Received _____
Certificate of Basic Boating Training (photocopy).....	Received _____
CPR training verification (photocopy)	Received _____
First Aid training verification(photocopy)	Received _____
Emergency contact form (Appendix IV)	Received _____
Kayak Training.....	Received _____
Inflatable Training.....	Received _____
Whaler Training.....	Received _____
Klamath Training	Received _____
Panga Training	Received _____

I have read and understand the most recent edition of the UCD/BML Small Boat Manual.

Applicant signature

Date

Diving/Boating Safety Officer Signature

Date

VOLUNTARY ACTIVITIES WAIVER

UNIVERSITY OF CALIFORNIA AT DAVIS
BODEGA MARINE LABORATORY

Waiver of Liability, Assumption of Risk, and Indemnity Agreement

Waiver: In consideration of being permitted to participate in any way in scuba or free diving, vessel operations or small boat use, I, for myself, my heirs, personal representatives or assigns, **do hereby release, waive, discharge, and covenant not to sue** The Regents of the University of California, its officers, employees, and agents from liability **from any and all claims including the negligence of the Regents of the University of California, its officers, employees and agents**, resulting in personal injury, accidents or illnesses (including death), and property loss arising from, but not limited to, participation in scuba or free diving, vessel operations or small boat use.

Signature of Participant

Date

Assumption of Risks: Participation in scuba or free diving, vessel operations or small boat use carries with it certain inherent risks that cannot be eliminated regardless of the care taken to avoid injuries. The specific risks vary from one activity to another, but the risks range from 1) minor injuries such as scratches, bruises, and sprains to 2) major injuries such as eye injury or loss of sight, joint or back injuries, heart attacks, and concussions to 3) catastrophic injuries including paralysis and death.

I have read the previous paragraphs and I know, understand, and appreciate these and other risks that are inherent in vessel operations or small boat use. I hereby assert that my participation is voluntary and that I knowingly assume all such risks.

Indemnification and Hold Harmless: I also agree to INDEMNIFY AND HOLD The Regents of the University of California HARMLESS from any and all claims, actions, suits, procedures, costs, expenses, damages and liabilities, including attorney's fees brought as a result of my involvement in scuba or free diving, vessel operations or small boat use and to reimburse them for any such expenses incurred.

Severability: The undersigned further expressly agrees that the foregoing waiver and assumption of risks agreement is intended to be as broad and inclusive as is permitted by the law of the State of California and that if any portion thereof is held invalid, it is agreed that the balance shall, notwithstanding, continue in full legal force and effect.

Acknowledgment of Understanding: I have read this waiver of liability, assumption of risk, and indemnity agreement, fully understand its terms, and **understand that I am giving up substantial rights, including my right to sue.** I acknowledge that I am signing the agreement freely and voluntarily, and **intend by my signature to be a complete and unconditional release of all liability** to the greatest extent allowed by law.

Signature of Participant

Date

Safety Equipment

Refer to ABCs of California Boating Law by CA Dept of Boating & Waterways

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

1. One VHF radio
2. Class I, II, or III PFD for each person on board, plus one 'throwable' with $\geq 50'$ of line
3. Anchor and anchor line
4. Oars, or paddles
5. Signal flares with aerial and smoke flares
6. Emergency repair kit and tools
7. Fire extinguisher on motorboats with open space under decking
8. Fog horn, or other signaling device
9. First aid kit, if diving, an oxygen unit

Suggested equipment:

1. A cellular telephone or CB radio
2. Drinking water
3. Spare fuel
4. Sea anchor
5. Boat hook
6. Bailer
7. Dock lines

BML Float Plan

All vessels operating under the auspices of UC Davis must be in compliance with California and USCG regulations. Refer to ABCs of the California Boating Law. Copies are available from the UC Davis Scientific Diving Program or CA Dept. of Boating & Waterways.

Date: _____ Estimated time of return: _____

Vessel:

Outboard powered,

_____ <i>Henricia</i> ,	16' Inflatable,	orange	CF 5694 XS
_____ <i>Polyorchis</i> ,	17' Boston Whaler,	white w/center console	CF 1151 XS
_____	17' Klamath skiff	aluminum	CF 3540 XS
_____	14' Klamath skiff	aluminum	CF 3159 XS
_____ <i>Loo</i>	14' Inflatable	black	CF 3093 XS
_____ <i>Pez Martillo</i>	24' "Panga" skiff	white	CF 1611 XS

_____ Other, Jonboat, etc. Describe _____

Number of people on board: _____

Names: _____

Area of operations. (be specific): _____

Launch/recovery site: _____ Lab truck used? Y, N _____

VHF radio frequencies monitored: 16 & Cell phone #: _____

VHF call sign: WTV 3405

If overdue, contact: _____

Local information & emergency numbers

Emergency	911	
USCG Bodega Bay	875-3596	Monitors VHF 16
Sonoma Co. Parks	875-3540	Doran Park
	875-3535	Spud Pt. Monitors VHF 16 & 68
	847-3245	Stillwater Cove
CA State Parks	875-3483	Sonoma Coast Beaches
	847-3286	Fort Ross
	847-3221	Salt Point

**DIVING SAFETY PROGRAM - BML
UC DAVIS
EMERGENCY CONTACT FORM**

Name : _____ ID # : _____

Any allergies? : _____ Blood type (if known): _____

EMERGENCY CONTACT(S) (NAMES & PHONE NUMBERS)

Name: _____ Relationship: _____

Home phone: _____ Work phone: _____

Address: _____

ALTERNATE:

Name: _____ Relationship: _____

Home phone: _____ Work phone: _____

Address: _____

DO YOU HAVE HEALTH INSURANCE?

DAN? Y N Level: _____ Member # : _____

Other Provider: _____
Name of Company

Name of Primary Insured: _____

Policy # : _____ Member or ID # : _____

This form last updated on : _____

SIGNATURE

DATE

**AAUS APPENDIX 6
AAUS REQUEST FOR DIVING RECIPROCITY FORM
VERIFICATION OF DIVER TRAINING AND EXPERIENCE**

A scientific diver that is currently certified under the auspices of an organizational member institution of the American Academy of Underwater Sciences (AAUS) shall be recognized by any other organizational member of AAUS and may apply for reciprocity in order to dive with the host organization. Organizational members that are in good standing with AAUS operate, at a minimum, under the AAUS Standards for Scientific Diving Certification and Operation of Scientific Diving Programs (1996 edition). The visiting diver will comply with the diving regulations of the host organization's Diving Safety Manual unless previously arranged by both organization's Diving Control Boards.

The host organization has the right to approve or deny this request and may require, at a minimum, a checkout dive with the Diving Safety Officer (DSO) or designee of the host organization. If the request is denied, the host organization should notify to the DSO of the visiting diver the reason for the denial. The DSO for the visiting scientific diver has confirmed the following information:

(Date)

Written scientific diving examination
 Last diving medical examination
 Most recent checkout dive
 Scuba regulator/equipment service/test
 CPR training (Agency) _____
 Oxygen administration (Agency) _____
 First aid for diving _____
 Date of last dive _____
 Number of dives completed within previous 12 months? _____
 Depth certification _____
 Any restrictions? (Y/N) _____ if yes, explain:

Please check any pertinent specialty certifications:

<input type="checkbox"/> Dry suit	<input type="checkbox"/> Rescue	<input type="checkbox"/> Blue water
<input type="checkbox"/> Dive Computer	<input type="checkbox"/> Divemaster	<input type="checkbox"/> Altitude
<input type="checkbox"/> Nitrox	<input type="checkbox"/> Instructor	<input type="checkbox"/> Ice/Polar
<input type="checkbox"/> Mixed gas	<input type="checkbox"/> EMT	<input type="checkbox"/> Cave
<input type="checkbox"/> Closed circuit	<input type="checkbox"/> Dive Accident Management	<input type="checkbox"/> Night
<input type="checkbox"/> Saturation	<input type="checkbox"/> Chamber operator	
<input type="checkbox"/> Decompression	<input type="checkbox"/> Lifesaving	Other _____

Name of diver: _____

Emergency Information: (See Appendix IV)

This is to verify that the above individual is currently a certified scientific diver at

(Home Institution)

Diving Safety Officer: _____
(Date)

(Signature)

(Print)

(Telephone, FAX, Email)

Request for Scientific Diving Project Approval or Renewal
University of California, Davis

Please respond to the following questions and forward the answers to:
UCD Diving Safety Program, PO Box 247, Bodega Bay, CA 94923. (FAX: 707-875-2089)
(Do not use campus mail)

1. Name of project: _____
2. Name of Principal Investigator(s): _____
3. New or an ongoing project? _____
4. Research project description and goals: _____

5. Location(s) of project: _____
6. Divers involved, (Names, affiliation): _____

7. Anticipated dive schedule: Total # of dives: _____ # dives/day/diver: _____
Maximum & average depths: _____ Boat used?: _____
Method (circle one): Scuba, Bluewater, Rebreather, Hookah, Surface supplied, Saturation
Dates of start and end of diving operations: _____
8. Any special or unusual research methods and/or equipment used?: _____

10. Funding source(s): _____
11. Other universities, institutions or groups involved with the project? _____

12. Additional information pertinent to the diving operations: _____

FOR OFFICIAL USE _____

UCD Diving Project # : _____

Renew on: _____

Signature, Chair DCB

Date