

INSTITUTE OF MARINE SCIENCES

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

MANUAL FOR SMALL BOATS

OPERATIONS AND SAFETY

FALL 2007

This booklet brings together information on policies and procedures that govern use of IMS boats. The twin principles guiding these policies are that IMS facility use should be both safe and efficient. Marine Sciences is an interesting and exciting field. IMS exists to expedite teaching and research in the marine environment. Unfortunately travel into remote marine habitats involves some risk. The boats and motors used in marine field work are especially dangerous if misused, and variable ocean weather can put even careful field workers at risk. Efficiency, although clearly a secondary priority to safety, is also important. Inefficient use of limited facilities is wasteful and causes unnecessary stress on others. You can help the Institute remain a safe, pleasant and productive place to work by following the procedures described in this book and by using courtesy and common sense in all your IMS activities. Suggestions for improvements in these policies and procedures are always welcome.

This manual supersedes boating information in IMS POLICY/PROCEDURES MANUAL dated 1996.

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INTRODUCTION

The Institute of Marine Sciences (IMS) owns and maintains a fleet of small boats for use in coastal waters. Boats range in length from 17 ft to 25 ft and are paired with outboard motors that range in size from 40 hp to 250 hp. In general, these vessels are available for use in research and teaching by faculty, staff, and students who have been certified and who have satisfactorily completed the required check-out procedures.

The Institute of Marine Sciences boat policy, as described in this manual, is designed to ensure safe and efficient use of all boats operated under IMS auspices. The procedures are designed to provide a safe environment for boat operations through a training program for boat operators and a maintenance program for boats, motors and associated equipment. The procedures are also designed to acquaint boat operators with the inherent dangers of boating and to set forth in writing the requirements and responsibilities of all persons who use IMS boats. These policies and procedures are modeled after those in place at other campuses of the University of North Carolina as well as at other laboratories in the Southern Association of Marine Laboratories.

APPLICATION

The following rules, regulations, and requirements apply to all persons operating boats under the auspices of the Institute of Marine Sciences of the University of North Carolina at Chapel Hill. They apply to such persons who may use, for any purpose, vessels owned by or in the custody of the University (IMS), and to those who use vessels regardless of ownership, on tasks or projects of the University (IMS). The use of the IMS boats (except R/V Capricorn) is restricted to faculty, staff, and students who are affiliated with one of the University of North Carolina system campuses. This restriction **includes being a passenger in any IMS boat** unless permission has first been granted by the IMS director or the IMS Small Boat Safety Officer.

Operation of IMS boats (Boat Captain's Certification) will be restricted to faculty, staff, and students of UNC-CH. **No individual may participate as a Boat Captain in the UNC-CH program without UNC-CH Boat Captain's Certification** or joint written consent of the Chancellor of the University and the Director of the Institute of Marine Sciences.

RESPONSIBILITIES

1. Ultimate responsibility for safe operation rests with the Boat Captain. It is his/her duty to refuse to operate the vessel if, in his/her judgment, conditions are unsafe or if he/she would be violating the precepts of his/her training or the regulations of this guide.
2. Boat Captains are responsible for understanding and abiding by Federal, State, local, and IMS regulations concerning SAFETY, RULES OF THE ROAD, VESSEL USAGE, CERTIFICATION AND REQUIRED EQUIPMENT ON BOARD. A Boat

Captain's certification may be revoked by the Director of the Institute of Marine Sciences for violations.

3. In emergencies or in other cases where it is prudent to deviate from accepted procedures, Boat Captains may use their own discretion but shall justify their actions in a written report to the Director.
4. Boat Captains shall complete a trip summary and maintenance report after each use of University motor vessels. Report sheets shall be filled out completely, including comments on accidents, potential hazards and mechanical problems. Forms are available in the sign out area at the south end of the CPEH building, first floor.

Boats used but not owned by UNC-CH require a trip summary and maintenance report be filed with the Director. Vessel log books shall be kept by the boat owner and be available for inspection by the Director.

5. Boats used on UNC operations must meet or exceed all Federal, State, local and UNC-CH requirements for safety, be in good repair, be well maintained and seaworthy beyond doubt.
6. Accidents must be reported to the Director as soon as possible after occurrence. An accident form must be filed with the Director within 24 hours of the accident.

Anyone involved in a boating accident is required to stop and give assistance as long as it will not personally endanger the operator, passengers or vessel. Operators involved in an accident should remain at the scene to the extent it is safe and practical, and exchange personal and boat information with authorities and other involved parties.

When a boating accident results in death or disappearance of a person, you must notify the North Carolina Wildlife Resources Commission, phone 1-800-662-7137, by the quickest means possible. Be prepared to give time, date, location and other important information about the boat/s and person/s involved.

You must also complete and submit an accident report form (Wildlife Resources Commission, 1-800-662-7137) within 48 hours when the accident results in a loss of life or disappearance of someone involved, a person is injured and requires medical treatment beyond first aid, or if property damage totals more than \$2000. Reports of other cases must be submitted within 10 days of the accident.

7. Programs requiring operations outside the parameters of this guide require the written permission of the Director.
8. **Boat Captains are required to file a written float plan prior to boating operations** (available in the sign out area at the south end of the CPEH building, first floor). The plan shall include location of operations with possible deviations,

names and phone numbers of people participating, time of departure and expected return, vessel make, vessel description and registration number. FLOAT PLANS MUST BE CLOSED IMMEDIATELY UPON RETURN TO IMS. All operations require that an Accident Procedures Plan addressing local evacuation and medical facilities be on board the vessel during operations and that each participant be aware of its presence.

9. Boat Captains are required to check the NOAA weather forecast before beginning operations. During periods of small craft warnings or advisory, UNC-CH vessels should not operate except in protected waters. No vessel operations shall take place during periods of obscured visibility. In cases where conditions change while underway or while on station, Coast Guard, State, and Local Rules and common sense for safety apply.
10. Ocean operations within 2 miles of shore require a functional VHF radio or cell phone and a compass. Operations beyond 2 miles require GPS in addition to VHF radio and compass. Any vessel operated more than 2 miles offshore shall have an EPIRB.
11. Boat Captains are responsible for seeing that all non-swimming passengers wear personal flotation devices and have an EPIRB during periods of foul weather and that during emergencies all passengers are wearing PFDs.
12. Boat Captains must hold a passenger briefing/information meeting prior to leaving the dock. The briefing is to include: location of safety equipment, use of safety equipment, wearing of safety equipment, safety underway, fire, abandoning ship and any other information relative to operational safety. In addition, the boat operator must determine if there are any passengers on board who are non-swimmers or who require special medical consideration.
13. Boat Captains are responsible for seeing that the boat operator uses the kill switch lanyard at all times when underway.
14. Alcoholic beverages ARE NOT allowed on IMS vessels.
15. Smoking IS NOT allowed on IMS vessels.
16. All passengers must be securely positioned while the vessel is underway. In most cases this means seated, but captains can suggest standing when wave and speed conditions make that a less dangerous option.
17. The Director has the authority to suspend or disapprove of vessel activities that in his opinion are unsafe.
18. Operations conducted between November 15 and May 1 or when water temperatures are below 60 degrees Fahrenheit require that an approved survival

(exposure) suit be available for each passenger on board. In addition, the following special cold weather precautions must be followed:

- 1) all persons on board must wear personal flotation devices (PFD);
 - 2) boat users must wear wet suits or rain suits to protect themselves from salt spray in boats;
 - 3) chest waders must NOT be worn while operating or riding in IMS boats, unless explicit permission is given by the Boat Captain.
19. Solo operations require that the Captain wear a type I, II or III Coast Guard approved PFD. As a reminder, kill switch lanyards shall be worn by operators at all times when underway.
 20. Vessels shall be operated at a safe speed at all times. A safe speed shall be maintained to avoid collision, property damage, and passenger safety. In determining safe speed, all factors of weather, vessel maneuverability, visibility, traffic, sea state, current, navigational hazards, draft, depth of water, and the possibility of floating objects are to be considered.
 21. It is the responsibility of the Boat Captain to use every reasonable means possible to become familiar with their intended areas of operation prior to an operation. This should include review of charts, Coast Guard NOTAMS, Coast Guard radio advisories, word of mouth from local inhabitants and any other means available.
 22. As taxpayers, the public is keenly aware of abuse and waste in Federal and State agencies. All faculty, staff and students have a responsibility to use boats and trucks safely, wisely and only for pursuit of scientific research and teaching. Violations should be reported to the small boat safety officer who will then report, as deemed necessary, to the Director of IMS.

REQUIREMENTS FOR BOAT CAPTAIN CERTIFICATION

Boat Captain certification is issued by the Director of the Institute of Marine Sciences or by an instructor designated by the Director. The certification program is intended to insure the safety of persons involved in vessel activities.

For certification, the following requirements must be met:

1. The mental and physical condition of a prospective Boat Captain must be compatible with efficient and safe operation of the vessel he or she may be responsible for under all conditions. If doubt exists, a medical examination by a qualified physician will be required.
2. Minimum age of 18 years or permission of parents.
3. Approved course on boat handling, i.e., Power Squadron Auxiliary Boat Handling and Navigation, and documented experience.
4. Written examination.
5. Practical examination.
6. Training course (with certification) in First Aid and CPR.

CERTIFICATION LEVELS

Certification is for the class of boat and the skill level.

VESSEL CLASSES

Class A - vessels under 16 feet

Class I - vessels 16 feet to under 26 feet

SKILL LEVELS

Trainee - May operate vessel only in the presence of an instructor.

Inland Operator - May operate on estuaries, sounds, lakes and rivers.

Ocean Operator - May operate on oceans, sounds, estuaries, lakes and rivers.

OUTLINE FOR USING BOATS

I. Sign Out/In Procedure

- A. Prior to departure, file a Float Plan (See pg. 16).
- B. Prior to departure, sign out the vehicle being used. Vehicle sign out sheets and float plans are located at the sign out area at the CPEH Building south end, first floor.
- C. If any passenger is not a state employee or student, prior to departure he must fill out a Waiver Form (see pg. 18).
- D. Upon return file a Summary and Maintenance report. In addition, if there is a problem with the boat or trailer, email Joe Purifoy with a copy to Adrian Whichard; if there is a problem with the motor, email Stacy Davis with a copy to Adrian Whichard (See pg. 17).
Email addresses: Joe Purifoy (jpurifoy@email.unc.edu); Stacy Davis (smdavis@email.unc.edu) and Adrian Whichard (cwhichard@email.unc.edu).
- E. If an accident occurs, upon return file an accident report (see p. 19). This must be done within 24 hours of return.

II. Gas and Oil

- A. Gas is kept in the gas shed.
- B. In some motors the outboard motor oil must be mixed with gas.
- C. Some larger boats use cans that say NO OIL IN GAS.
- D. Smaller boats (outboards) use 1 pt of outboard motor oil to 6 gals of gas.
- E. On larger boats put oil directly into reservoir if needed.

III. Startup Check List/Procedures

- A. Check fuel level.
- B. Check oil level.
- C. Put ALL plugs in; when returning take out at the lab or when on the road.
- D. Check boating equipment:
 - 1. Life jackets
 - 2. Oars
 - 3. Anchor
 - 4. Flare kit
 - 5. Whistle
 - 6. First aid kit
 - 7. Tool box
 - 8. Ring buoy
 - 9. Fire extinguisher
 - 10. Radio/Cell phone
 - 11. Water (if needed)
 - 12. Survival suit (if needed)
 - 13. GPS (for greater than 2 miles offshore)

- E. Test motor:
 - 1. Connect water to motor.
 - 2. Put throttle in start position.
 - 3. Place clutch in neutral.
 - 4. Squeeze gas bulb.
 - 5. Choke engine.
 - 6. Insert key, check lanyard, start.
 - 7. Check tilt.
 - 8. Check for slack tires on the trailer.
 - 9. Check for safety strap.
 - 10. Make sure the motor is tilted into the correct position and locked for trailering.
 - 11. Store gear where it will not be blown out on the highway.

IV. Vehicle and Boat Attachment

- A. Make sure vehicle has gas card.
- B. Check that the trailer ball is the appropriate size for the hitch (color coded).
- C. Attach wiring harness from trailer to truck, check lights for correct operation.
- D. Make sure trailer is securely attached to ball on truck.
 - 1. Movable lip on bottom of tongue must be underneath ball.
 - 2. Latch should be down.
- E. Cross safety chains underneath trailer tongue and hook to truck.
- F. Some larger boat trailers are equipped with electric release brakes. To insure proper operation, back the trailer to insure brakes release.
- G. MAKE SURE YOU HAVE BOAT KEY**

V. Trailering

- A. Forward
 - 1. Trailers need room to make wide turns; you must plan for this before making turns towing trailers.
 - 2. Make sure weight is distributed with the tongue weight slightly more.
- B. Backing up
 - 1. A ground guide must always direct backing.
 - 2. Slow backing and careful observation of the trailer prevents accidents.
 - 3. The back end of a trailer moves laterally in an opposite direction from the back end of the towing vehicle.
 - 4. Continued backing when a trailer is turned away from the vehicles path can cause it to "jackknife," (a position at right angles to the vehicle), a dangerous position.
 - 5. If the trailer gets off line, pull forward to straighten vehicle and begin backing again.

VI. Boat Operation

A. Launching boat

1. Check ALL plugs when coming or going; take out at lab or when on the road.
2. Remove safety strap.
3. Check to make sure engine is tilted up.
4. Have bow line ready to launch boat.
5. Back trailer to where wheels are in water, then release trailer cable from boat.
6. Make sure bow line is secure, either by person holding bow line or by tying the line to the dock.
7. Launch boat, then park trailer.

B. Boat Operating Procedure

1. Large boats

- a. Make sure gear is secure and weight is properly distributed.
- b. Short briefing on safety procedure and location of safety equipment.
- c. Tilt engine up to release tilt lock.
- d. Tilt lock should be placed in down position.
- e. Tilt motor all the way down.
- f. Squeeze gas bulb on fuel line until firm.
- g. Throttle shifter should be placed in neutral (control box).
- h. Warm-up lever in up position.
- i. Choke engaged by pushing in key.
- j. Start engine, let it warm up for 2 minutes.
- k. Push warm-up lever down.
- l. Push throttle forward in a quick deliberate motion for forward gear.
- m. Push throttle backward in a quick deliberate motion for reverse.
- n. Check boat traffic and proceed to destination with caution and care.
- o. Boat operator must wear kill switch lanyard at all times.

2. Small Boat Operation

- a. Properly distribute weight in boat and make sure gear is secure.
- b. Short briefing on safety procedure and location of safety equipment
- c. Put motor in down position.
- d. Make sure fuel line is connected to motor and pump line until ball is firm.
- e. Place throttle in start position.
- f. Pull choke lever out.
- g. Place clutch in neutral.
- h. Pull starter rope several times until motor starts.
- i. After engine is running push choke in.

- j. Turn throttle to slow position and engage selector to forward or reverse. Shifting gears should be a quick deliberate motion.
 - k. Proceed with caution and care.
 - l. Boat operator must wear kill switch lanyard at all times
- C. Anchoring
All boats should be equipped with an anchor and line of suitable size and length for the boat and for the waters in which it is being operated. The scope of the anchor line should be 7 feet long for every foot of water.

II. Rules of the Road

- A. Do not take short cuts. Follow channel markers, watch for and observe No Wake Zones.
- B. Channel marker section
 - 1. Easy way to remember proper channel selection is "Red Right Returning" from ocean. Green is on right when going to sea
 - 2. In the Intracoastal Waterway, green is on the right when headed north; green is on the left when headed south.
 - 3. Slow down and turn into wake from other vessels passing by.
 - 4. Proceed with caution and care.

VIII. Troubleshooting

- A. Small boats
 - 1. Engine will not start
 - a. Make sure gas line is connected.
 - b. Make sure gear shift selector is in neutral.
 - c. Make sure throttle is in start position.
 - d. Check kill switch and wear lanyard.
 - e. On Mariner make sure motor switch is in on position.
 - f. Make sure choke is engaged (out).
 - g. If you smell gas, engine is probably flooded.
 - i. Push choke in.
 - ii. Let engine set for 3 minutes then try again.
 - h. Choke is not needed if engine has been running earlier.
 - i. If engine still will not start, call lab for further instructions.
- B. Large Boats
 - 1. Engine will not turn over
 - a. Check kill switch for proper position and wear lanyard.
 - b. Check battery terminals to see if they have good connection.
 - c. Check to make sure warm-up lever is in down position.
 - d. Make sure throttle is in neutral position.
 - 2. Engine will turn over, but not start
 - a. Make sure fuel line is connected to motor.
 - b. Check bulb on fuel line to see if firm.
 - c. Check to see if choke is engaged.

- d. If you smell gas, engine is probably flooded.
 - 1. Disengage choke.
 - 2. Let engine set for 3 minutes then try again.
- e. If engine will not start call lab for further instructions.
- 3. Alarm in Control Panel goes off (alarm is for low oil or reduced water for cooling)
 - a. Slow engine down and cut off if possible at the time.
 - b. If possible anchor boat.
 - c. Check oil reservoir level, if low add oil.
 - d. Remove motor cover and see if engine is smoking or hot to touch. When engine is started small stream of water should come out back of motor.
 - e. If engine is overheating
 - i. Raise motor with tilt to make sure plastic bag or sea grass is not clogging intake on motor.
 - ii. If intake is not clogged, lower engine.
 - iii. Let it cool.
 - iv. Then start, run engine at slow speed.
 - v. If alarm goes off again stop motor.
 - vi. Call lab for assistance.
- 4. Motor is cavitating (engine is revving up and prop is in an air pocket)
 - a. Make sure tilt switch is completely in down position.
 - b. Cut motor off and tilt engine to make sure it does not have plastic bag or seagrass wrapped around it.
 - c. Tilt engine down, start, and proceed.
 - d. If motor continues to cavitate, slow engine down and proceed.

IX. Emergency Procedures

- A. If motor will not run, anchor boat and put on life jackets.
- B. Call for assistance with VHF Radio (See p. 12, also p. 13).
 - 1. Make sure volume control on radio is in off position.
 - 2. Hook leads from radio to battery terminal (red to positive, black to negative).
 - 3. Connect antenna to radio and place in upright position.
 - 4. Turn dial to On position or push buttons to:
 - a. IF EMERGENCY, CONTACT COAST GUARD on CHANNEL 16.
 - b. If using VHF and the situation is not life threatening, then ask Coast Guard to make a call to UNC Lab 726-6841 Ext. 0, give location and problem, lab will send help.
- C. Cell phones are a good alternative to VHF radios for emergency calls or for official lab business, as long as you are not operating too far offshore or in a dead zone. Call numbers are given below:

IMS	726-6841	Lewis, Claude	241-5399
Whichard, Adrian	725-1836	Purifoy, Joe	725-4221
Davis, Stacy	725-1835		
Fluellen, Wayne	241-3551		

X. DIVING FROM IMS BOATS

- A. Dive Equipment: DAV Underwater Diving Accident Manual, Dive Tables, Emergency Procedures Plan, Emergency O₂ kit, First Aid kit, Trail Line with float at least 75', dive ladder (optional), dive flag (standard and international), radio and antennae.

- B. Personnel Requirements: All offshore diving requires a minimum of three people, one person serving as attendant of vessel during diving operations. Person serving as attendant must be certified Boat Captain.

EMERGENCY INSHORE AND OFFSHORE RADIO PROCEDURE

If the boat is disabled, but there is no danger and no injured person, the Coast Guard should be called on Channel 16; give the location and the situation and name of boat.

EXAMPLE: Fort Macon Coast Guard, this is the R/V Parker WXE4469. I am two miles west of Buoy R4 in Lookout Bight and need some assistance. My boat will not start. Could you please place a call for me to IMS - Morehead City that I need some help. The phone number is 726-6841. "OVER"

Note: When you have finished talking and you expect a reply, use the word "OVER." To end a transmission, use the word "OUT."

If there is a serious injury the Coast Guard should be called on Channel 16. Give the location and the situation and description of the boat.

EXAMPLE: Fort Macon Coast Guard, this is R/V Kencraft WXE4469. I am two miles west of Buoy R4 in Lookout Bight. I have an injured person on board and need assistance. My boat is a white, 19 foot, fiberglass, open hull with one 110 hp Johnson outboard motor. I will be standing by on 16. "OVER"

Offshore Radio Procedure: Same except in addition you would give your G.P.S. Coordinates.

When and How to give a "MAYDAY" on Channel 16 VHF.

Make sure everyone is wearing a PFD, and follow USCG orders. Don't give a MAYDAY unless the situation is life threatening: the boat is likely to sink by taking on water, there is a fire that is out of control, or your life is in serious danger.

EXAMPLE: Mayday - Mayday - Mayday. This is R/V Parker, R/V Parker WAO5568. Mayday RV Parker, WAO5568. 270 degrees two miles from Buoy R4 in Lookout Bight, taking on water fast, motor disabled, estimate cannot stay afloat longer than one hour. Four persons on board. My boat is a white 21 foot fiberglass open hull with one 175 hp Yamaha outboard motor. I will be standing by on VHF Channel 16. This is R/V Parker WAO5568. "OVER". Then wait 30-60 seconds for reply. If no answer, then repeat call. If there is still no answer, switch to another channel, try 68. Begin again. Most of all, stay calm and speak clearly. Help is on the way. Stand by to deploy EPIRB. If no reply, activate EPIRB and keep it with you.

Calling NC Marine Fisheries, VHF Radio Channel "16"

ANY vessel operated more than 3 miles offshore can file a float plan with the Division of Marine Fisheries in addition to the IMS float plan. If you do this, call the Marine Dispatcher from the dock before you get underway. Call when you get on your site. Call with ETA when you are getting underway to return. Before calling the Division of Marine Fisheries, be sure they have a copy of your IMS Float Plan.

When you return, let DMF know IMMEDIATELY, either in person or by telephone (252-726-7021). They will then close your Float Plan.

You must also call DMF if your trip UNEXPECTEDLY takes you more than 3 miles offshore.

How to Call: Marine Fisheries, this is R/V _____ WXE4469 "OVER." Note: When having a conversation, at the end of it say "OVER." After your conversation is completed, say "This is R/V _____ WXE4469 "OUT."

If there is an EMERGENCY, call anytime. If there is a mechanical problem, call Marine Fisheries and ask them to call IMS.

If no reply in 30-60 seconds, repeat call.

Still no answer, go to EMERGENCY INSHORE AND OFFSHORE RADIO PROCEDURE.

A copy of these instructions is on the boat.

HYPOTHERMIA COLD WATER SURVIVAL TIPS

Safe boating is the first step to avoiding accidental immersion. If you have not fallen overboard, but you are going to get in the water, try getting in the water slowly. Getting into cold water too fast is dangerous and can induce rapid, uncontrolled breathing, cardiac arrest, and other life-threatening conditions. Button up your clothing and cover your head, keeping it out of the water. This is very important as 50% of body heat is lost from the head. Overall body temperature cools 82% faster when the body is immersed in cold water. In addition, body temperature decreases at a 35% faster rate when you are active, e.g., swimming or treading water. The average-sized person who remains still in a fetal position, covers their head, and wears a PFD may survive up to 3 hours in 50° water. Survival time increases when your body is as far out of the water as possible.

If your boat capsizes, stay with the boat at all cost. The boat will likely stay afloat or float just below the surface. Try to get as much of your body as possible out of the water and onto the boat, and remain still. Only swim to shore if you're absolutely certain you're going to make it. In cold water you can lose consciousness and drown in a matter of minutes. So if the shore is 100 yards away don't try it even if you are an excellent swimmer.

FIRST AID FOR HYPOTHERMIA

The victim must be handled gently and not allowed to walk. The Coast

Guard rules of treatment are:

- 1) Move the victim to warmth and shelter as soon as possible.
- 2) Carefully remove all wet clothing.
- 3) Place the victim on a hard, flat surface in the event CPR is needed. Apply heat to the central core of the body by keeping warm, not hot, moist towels wrapped around the head, neck, sides and groin. Hot water bottles and heated blankets can also be used.
- 4) Without a warm water supply, rescuers can immediately begin reviving a victim by removing their clothing and using their bodies to warm the victim's naked body.
- 5) Do not give the victim anything to drink. Do not rub frozen body areas or wrap a hypothermic in a blanket and leave him. When the body is covered, it loses the ability to produce its own warmth and the blanket only serves to further insulate the body from the surrounding warmth.
- 6) If the victim appears dead, heart massage and CPR should be administered.
- 7) Even in mild cases, it is recommended that all hypothermia victims be seen by a doctor.

SMALL BOAT OPERATION

Date _____

FLOAT PLAN

Float Plan No. _____

PROJECT TO BE BILLED FOR BOAT USE. _____

1. BOAT OPERATOR: Name _____

Local Address _____

2. Boat Number _____

3. Persons ON Board: (in addition to the operator)

Name

Telephone #

4. Equipment on Board: (check all that apply to this boat)

PFD'S ___ FLARE KIT ___ MANUAL BILGE PUMP ___ BUCKET ___
PADDLES ___ VHF RADIO ___ CELL PHONE ___ GPS ___ WATER ___
ANCHOR ___ SURVIVAL SUITS ___ TOOL KIT ___ FLASHLIGHT ___ BOAT
PLUGS ___ FIRE EXTINGUISHER ___ TYPE 4 "THROWABLE" PFD OR
RING ___ WHISTLE OR SOUND DEVICE ___ COMPASS ___ WET SUIT ___

5. Trip Expectations: Departing at _____ am/pm from _____

Destination _____

Expect to return by _____ am/pm and in any case not later than _____ am/pm.

6. Description of vehicle towing boat: Vehicle number _____

To be parked at _____

Vehicle deficiencies _____

7. Diving Yes ___ No ___

Account number _____ Dept. Head/ Budget official.

Small Boat Operations
Trip Summary and Maintenance Report

THIS FORM IS TO BE COMPLETED BY THE BOAT CAPTAIN AND LEFT IN THE BOAT BOX.

This report is related to Float Plan Number _____

Email maintenance deficiencies to Adrian Whichard cwhichard@email.unc.edu **and** Joe Purifoy jpurifoy@email.unc.edu for boat/trailers; Stacy Davis smdavis@email.unc.edu for outboard motors, and Claude Lewis dclewis@email.unc.edu for vehicles

1. Trip Summary (and brief statement relative to any unusual events encountered during the trip, e.g., accidents / injury, new sandbars, new or missing channel markers, etc.

2. Mechanical Summary (briefly describe and mechanical difficulties with the boat, motor, and/or trailer).

3. Lost / Damaged Equipment Summary (identify any equipment lost or damaged and briefly explain the circumstances).

4. Specimen Collection Summary (if required by State or Federal Law)

<u>Species Name</u> _____	<u>Common Name</u> _____	<u>No. collected</u> _____
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5. Boat Operator Maintenance Checklist (check each item when completed.)
 - a. Gas Tank (s) refilled _____ (do not refill if unable to provide proper oil mixture.
 - b. Oil Reservoir Refilled _____ (if applicable).
 - c. All equipment that does not stay on boat is removed and properly stored _____.
 - d. Boat, motor, and trailer thoroughly rinsed with fresh water _____.
 - e. Motor flushed with fresh water. _____
 - f. Motor locked in rinse position. _____ (boat left in the water)
 - g. All switches in the OFF or AUTOMATIC position _____.
 - h. Boat and vehicle keys are returned to keyboard. _____

Signature _____ Date _____

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
INSTITUTE OF MARINE SCIENCES
WAIVER, RELEASE, AND INDEMNITY AGREEMENT

I am fully aware of the risks and hazards associated with participation in marine science activities in laboratories, fieldwork, boats and vessels, wading, diving and the like. I hereby elect voluntarily to participate in said activities and fully acknowledge that they may be hazardous to me and my property. I acknowledge that by signing this document I hereby release, hold harmless, and forever discharge The University of North Carolina at Chapel Hill, its employees and agents, from any and all liability, claims, demands, actions, and causes of actions whatsoever arising out of or related to any loss, property damage, or personal injury, including death, that may be sustained by me or to any property belonging to me while participating in marine science activities.

I voluntarily assume full responsibility for any risk of loss, property damage, or any personal injury, including death, that may be sustained by me or any loss or damage to property owned by me as a result of being engaged in such activities. I further agree to indemnify and hold harmless the University, its employees and agents, from any loss, liability, damage, or cost, including court costs and attorneys' fees they might incur due to my participation in said activities.

This release and hold harmless agreement is binding on myself, my heirs, assigns, and personal representatives. I acknowledge that I am 18 years old or more.

This the _____ day of _____ 19____.

Participant

Date

Witness

Date

ACCIDENT REPORT FORM
(Water Related Accidents)

DIRECTIONS: Accidents, whether involving injury or not, must be reported to the Director as soon as possible after the event. A report form is to be filed with the Director within 24 hours.

NAME _____ DATE _____

LOCATION _____

ACTIVITY _____

CAUSE OF ACCIDENT _____

CORRECTIVE MEASURES _____

INJURIES (DETAIL) _____

FIRST AID _____

DISPOSITION OF VICTIM _____

INFORMATION ON BOATS INVOLVED:

REGISTRATION # _____

OWNER ADDRESS AND PHONE _____

TYPE OF DAMAGE _____

HULL # _____

PERMANENT ADDRESS _____

IMS TRUCK AND BOAT COMPATABILITY LIST AS OF OCTOBER 2007

TRUCK

4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x2	4x2	4x2
63	62	732	830	835	008	36	880	846	425

BOAT

101	101	101	101	101	101	101	101	101	101
	102		102	102	102	102			102
103	103	103	103	103	103	103	103	103	103
	104		104	104	104	104			104
	105		105	105	105	105			105
	106		106	106	106	106			106
107	107	107	107	107	107	107	107	107	107
108	108	108	108	108	108	108			108
109	109	109	109	109	109	109	109	109	109
110	110	110	110	110	110	110	110	110	110
111	111	111	111	111	111	111	111	111	111
112	112	112	112	112	112	112		112	112
114	114	114	114	114	114	114	114	114	114
115	115	115	115	115	115	115	115	115	115
116	116	116	116	116	116	116	116	116	116

NOTE

Always check weight restrictions.

Trucks 63, 732, should not pull heavy boats

Vans 880,846 should not pull heavy boats when the vans are loaded.

TRUCK 743 IS NOT EQUIPPED TO PULL TRAILERS.

Inshore Required Equipment: 1 CG approved type I, II or III PFD for each person on board, 1 type IV throwable PFD, 1 CG approved fire extinguisher, 1 CG approved sound device, 1 CG approved signaling kit, and first aid kit. 1 anchor and line and 1 oar. VHF radio or cell phone. Survival suit when water temperature is 60 degrees or below.

OFFSHORE BOATS
(Can be used greater than 2 miles offshore)

ALL IMS BOAT OPERATORS MUST WEAR KILL SWITCH LANYARD
WHEN UNDERWAY

UNC OPERATION LIMITATIONS AND REQUIREMENTS

Personnel requirements - minimum of 2

Boat #108	Peterson
22 ft. Privateer	
Hull type:	Fiberglass
Flotation:	Yes
Engine:	175 hp Mariner
Fuel Capacity:	62 gallons
Maximum Capacity:	2500 lbs

Inshore Required Equipment: 1 CG approved type I, II or III PFD for each person on board, 1 type IV throwable PFD, 1 CG approved fire extinguisher, 1 CG approved sound device, 1 CG approved signaling kit, and first aid kit. 1 anchor and line and 1 oar. VHF radio or cell phone. Survival suit for each person on board when water temperature is 60 degrees or below.

Offshore Required Equipment: Compass, 1 CG-approved Type I PFD for each person on board, 1 Type IV throwable PFD, 1 CG-approved fire extinguisher, 1 CG-approved sound device, 1 CG-approved signaling flare kit, radar reflector, tool kit, first aid kit, whistles, CG-approved navigation lights, VHF radio or cell phone and Loran or GPS or both, and EPIRB is required, two anchors and line, food and drinking water, flashlight, mirror, searchlight, binoculars, one oar, and a survival suit for each person on board from November through May when water is below 60

ANCHORING

The Privateer should be equipped with an anchor and line of suitable size and length for the waters in which it is being operated. Note: Do not anchor by the stern!!

To anchor, bring the boat bow into the wind or current and put the engine in neutral. When the boat comes to a stop, lower, do not throw, the anchor over the bow. The anchor line should be 5 to 7 times the depth of the water.

Additional equipment you may want to take: Extra clothing, sunburn lotion, sunglasses, hat.

* Use of Privateer restricted - requires Dr. Peterson's permission.

INSHORE AND OFFSHORE BOAT
(>2 Miles Offshore)

ALL IMS BOAT OPERATORS MUST WEAR KILL SWITCH LANYARD
WHEN UNDERWAY

UNC OPERATION LIMITATIONS AND REQUIREMENTS

Personnel Requirement – minimum of 2

Boat #104	Luettich
*25 ft Parker:	Use inshore and offshore.
Hull type:	Fiberglass
Flotation:	Yes
Engine:	250 hp Yamaha
Fuel capacity:	100 gallons
Maximum capacity:	6 persons + gear

Inshore Required Equipment: 1 CG approved type I, II or III PFD for each person on board, 1 type IV throwable PFD, 1 CG approved fire extinguisher, 1 CG approved sound device, 1 CG approved signaling kit, and first aid kit. One anchor and line and one oar. VHF radio or cell phone required. Survival suit for each person on board when water temperature is 60 degrees or below

Offshore Required Equipment: Compass, 1 CG-approved Type I PFD for each person on board, 1 Type IV throwable PFD, 1 CG-approved fire extinguisher, 1 CG-approved sound device, 1 CG-approved signaling flare kit, radar reflector, tool kit, first aid kit, whistles, CG-approved navigation lights, VHF radio and Loran or GPS or both, and EPIRB is required, two anchors and line, food and drinking water, flashlight, mirror, searchlight, binoculars and one oar. From November to May, or when water temperature is less than 60 degrees, a survival suit is required for each person on board.

- Use of 25 ft Parker #104 restricted – requires Dr. Luettich's permission

INSHORE AND OFFSHORE BOAT
(>2 Miles Offshore)

ALL BOAT OPERATORS MUST WEAR KILL SWITCH LANYARD
WHEN UNDERWAY

UNS OPERATION LIMITATIONS AND REQUIREMENTS

Personnel Requirement – minimum of 2

*Boat #105	Paerl
25' Parker	Use inshore and offshore
Hull type	Fiberglass
Flotation	Yes
Engine	(2) 150 Yamaha
Fuel	100 gal
Maximum capacity	6 persons and gear

Inshore Required Equipment: 1 CG approved type I, II or III PFD for each person on board, 1 type IV throwable PFD, 1 CG approved fire extinguisher, 1 CG approved sound device, 1 CG approved signaling kit, and first aid kit. One anchor and line and one oar. VHF radio or cell phone required. Survival suit for each person on board when water temperature is 60 degrees or below

Offshore Required Equipment: Compass, 1 CG-approved Type I PFD for each person on board, 1 Type IV throwable PFD, 1 CG-approved fire extinguisher, 1 CG-approved sound device, 1 CG-approved signaling flare kit, radar reflector, tool kit, first aid kit, whistles, CG-approved navigation lights, VHF radio and Loran or GPS or both, and EPIRB is required, two anchors and line, food and drinking water, flashlight, mirror, searchlight, binoculars and one oar, and survival suit for each person on board when water temperature is below 60 degrees.

*Use of 25 ft Parker #105 restricted – requires Dr. Paerl's permission

INSHORE AND OFFSHORE BOAT
(>2 Miles Offshore)

ALL BOAT OPERATORS MUST WEAR KILL SWITCH LANYARD
WHEN UNDERWAY

UNC OPERATION LIMITATIONS AND REQUIREMENTS

Personnel Requirement – minimum of 2

Boat #102	Paerl
25' Parker	Use Inshore and offshore
Hull type	Fiberglass Deep Vee
Flotation	Yes
Engine	(2) 150 hp Yamaha
Fuel	200 gallons
Maximum capacity	6 persons and gear

Inshore Required Equipment: 1 CG approved type I, II or III PFD for each person on board, 1 type IV throwable PFD, 1 CG approved fire extinguisher, 1 CG approved sound device, 1 CG approved signaling kit, and first aid kit. One anchor and line and one oar. VHF radio or cell phone required. Survival suit for each person on board when water temperature is 60 degrees or below

Offshore Required Equipment: Compass, 1 CG-approved Type I PFD for each person on board, 1 Type IV throwable PFD, 1 CG-approved fire extinguisher, 1 CG-approved sound device, 1 CG-approved signaling flare kit, radar reflector, tool kit, first aid kit, whistles, CG-approved navigation lights, VHF radio and Loran or GPS or both, and EPIRB is required, two anchors and line, food and drinking water, flashlight, mirror, searchlight, binoculars and one oar, and survival suit for each person on board when water temperature is 60 degrees or below.

Use of 25 ft. Parker #102 restricted – requires Dr. Paerl's permission