Small Boat Safety Manual

May 2023

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Small boat operations involve certain risks that must be addressed prior to beginning any fieldwork. Knowing what equipment is required to be on the boat, the rules of the road, understanding the weather and its e ects on the marine environment, and even the variations in operating one type of boat compared to another are all obstacles that must be overcome in order to minimize the risks to those on board, as well as maximizing e ciency in data collection.

The operator shall be familiar with the operation of the equipment and shall inspect all emergency equipment prior to departure (see Appendix IV for a list of required equipment). Special attention should be given to Personal Flotation Dev

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1. Perform a functional inspection of the boat and all equipment.
   a. Ensure the plug is in the drain hole on the transom.
   b. Check all fluid levels in the vessel.
   c. If you are using a jet boat, grease the jet unit.
   d. Conduct a vessel "walk around."
   e. Check for all safety equipment, including PFDs and communications equipment.
2. Assess all environmental risks, including weather conditions, river/lake/sea conditions, and so forth.
3. Inform all passengers of emergency procedures, to include man-overboard, fire, and abandonment and methods for seeking assistance.
4. Inform all passengers of the location of emergency equipment including PFDs.
5. Complete a verbal risk assessment with all passengers, to discuss additional hazards and appropriate precautions for the particular environment, weather and objectives of the operation.
6. File a Float Plan with a responsible shore contact person (see Appendix I). Please note: All the information on the Float Plan is required. Do not leave sections blank, this document is your lifeline, take the time to complete all information. Leave one copy of the Float Plan with a responsible party.

It is expected that all operators and passengers will adhere to the guidelines in the safety manual and follow boating rules of the road. This includes, but not limited to, appropriate and safe behavior, PFD usage, and remembering you represent the UAF Department of Fisheries when you are on the water and in transit.

Conduct all pre- o

2. Secure lines in the boat so they won't get caught in a trailer wheel
3. After hooking up the trailer check the following:
    a. The hitch is secure and the lock/pin is in place.
    b. The trailer chains are crossed under the hitch and secured so that the end of the hook is facing the boat.
    c. The emergency brake cable is secured to the vehicle with the end of the hook facing the boat.
    d. All of the lights are functioning properly.
    e. The tires are properly inflated (NOTE: recommended psi depends on the specific boat & trailer). Check for a spare tire and make sure it is inflated properly.
    f. The trailer jack is fully raised or stored prior to driving
4. A spotter standing outside of the University truck when a trailer with or without a vessel during backing is required. The spotter should always stay in the driver's sight.

Before backing the trailer into the water check the following items:

1. Drain plug(s) are installed.
2. The securing straps on the back of the boat have been removed.
3. Disconnect the trailer lights.
4. The battery switch has been turned on (if applicable).
5. The fuel switch is in the on position (if applicable).
6. The trailering lock is o (if the trailer has c
7. The tilt support lever is up. Motors are up
8. All of your gear has been loaded into the b you are ready to de

Once the boat has been backed into the wa the h t and get it started or secure the boat to a dock before releasing the boat f once the engin d allow it to warm up briefly until you are confident that it will not stall.

Retrieving the boat can be di cult if the conditions 1 Wind and currents e considered on your approach to the trailer. Once you have the boat on th r ecured by the win ecurity chain pull out and into the prep area and do the following:

1. Secure the rear of the boat with the straps.
2. Raise the engine, lower the traile ck, ine into the tion.
3. If there is a kicker motor on the b cu e motor is locked in the down position. Some vessels will n

Administrative Manager of the Lena Point Building will contact the appropriate Risk Management personnel. The boat operator will be required to give a full written accounting of the accident/incident. In the event of an accident or incident, the Boat Safety Committee will determine continued approval to serve as a boat captain on a case-by-case basis.

<u>Definitions</u>:

are defined as events that result in minor injuries (cuts and scrapes) or "cosmetic" damage to vehicles or vessels (dents and scratches that don't a ect the operation of the vehicle or vessel.) Incidents also include near misses, such as when a situation occurred that could have led to an accident, which should be reported as well.

are defined as events in which a serious injury requiring medical attention beyond basic first aid occurred. An accident is also defined as a situation where major property damage occurred.

Reporting guidelines and resources:

1. **Any accident and or incidents no matter how minor are required to be reported to the Administrative Manager of the Lena Point Building and/or the Chair of the Department of Fisheries within 12 hours of occurrence. Failure to report injuries within this time could result in Worker's Compensation claims being denied.**

2. **Any accident resulting in a fatality must be reported to the Administrative Manager of the Lena Point Building and/or the Chair of the Department of Fisheries immediately after emergency personnel have been contacted.**

3. **Reporting should follow the flow chart in Appendix II.**

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This 2 page document is for your benefit and is required. In the event of mechanical di culties, weather related problems, or other boating hazards, having a plan and the proper equipment to deal with these issues can make a huge di erence in the outcome. Fill out this form completely and leave it with a responsible party on shore. In the event your return is delayed and communications are lost, this shore party should activate the appropriate response as detailed on this form. It is recommended that you bring a second copy with you in the boat. Please be specific in the areas you will be operating in.

Name and description of vessel: _____

Purpose of trip:_____

_____

Operator Name: _____ **Telephone #:** _____

Local address: _____

Principal Investigator/Academic Advisor/Supervisor _____ **On board?** _____

PFDs (#:)*	**Paddles**	**Bell/whistle/horn***
Working* Radio	**Day Signals ***	**Cell phone (#:)**
Monitoring channel: ____	**Night Signals***	**Exposure Protection**
Anchor	**Line (Amount:)**	**Fire Extinguisher*[1]**
Bailing Device	**Tool kit**	**Satellite phone**
Compass and Charts	**First-aid kit**	*** required equipment**
Food /Water		**[1] see USCG regulations for details**

CFOS equipment checked out: _____

Shore Contact: _____ **Phone#** _____

If no contact is made with Shore Contact by: _____ **(time), the contact will:**

- **at (907) . After contacting the Coast Guard, call the Administrative Manager.**
- **at 1-(800)-420-7230. After contacting the Coast Guard, call the Administrative Manager.**

FOR TRIPS OVERNIGHT: the Shore Contact will be contacted each day by the

: _____ Time: : _____ Time: _____

Departing from: _____ Returning to: _____

(Include all destination(s) including planned route):

: _____

Other travel notes:

Forecast: Source:

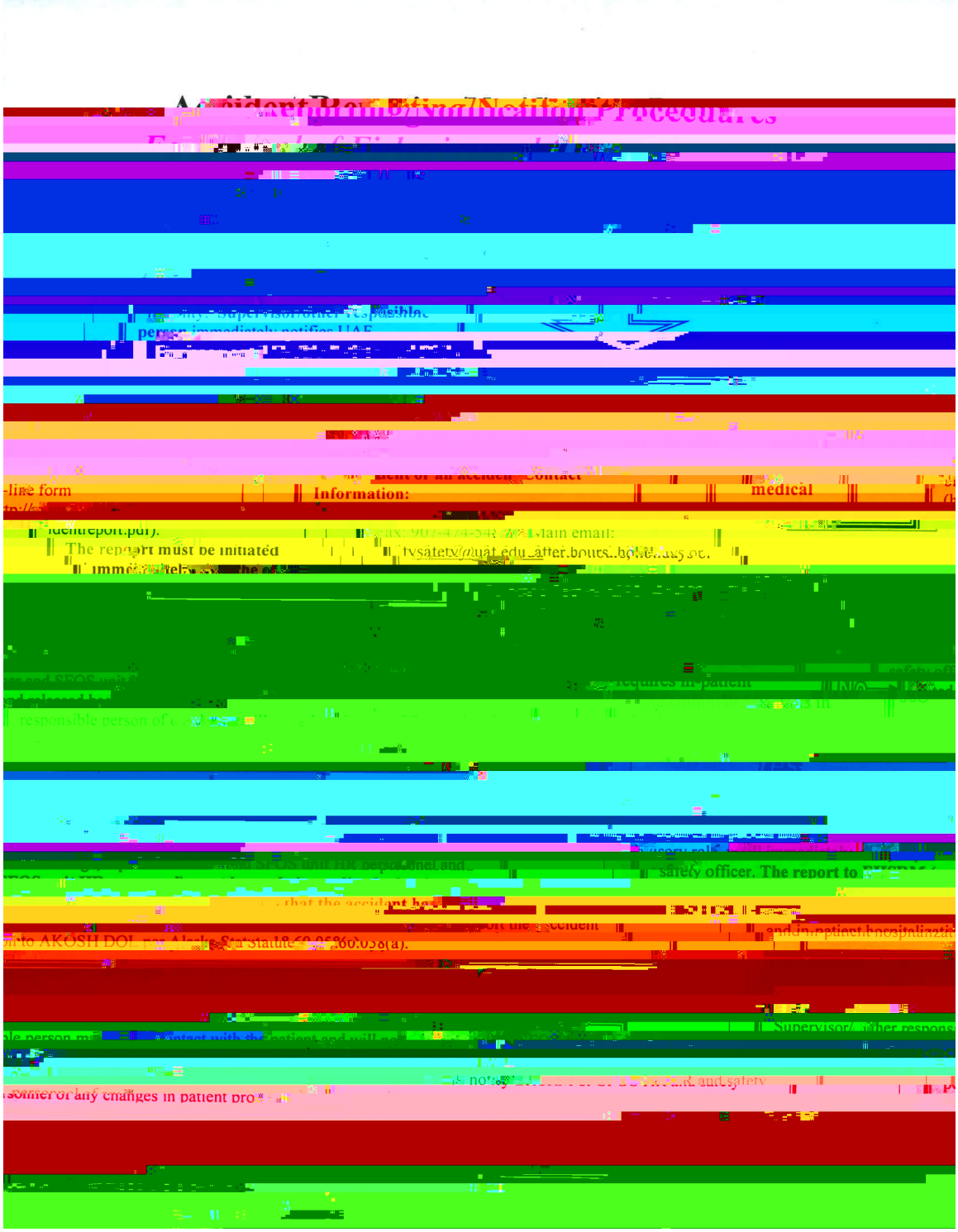
Wind conditions:

Sea conditions/Tides and/or River conditions/Discharge levels:

Any current weather advisories?

APPENDIX II

Incident and Accident Reporting



APPENDIX III

I understand that as a designated boat operator I am responsible for all aspects of boating operations, regardless of the presence of any senior sta or faculty in the boat. These responsibilities include, but are not limited to, the safe navigation of the vessel to and from the site(s) of operation, the safe operation of all equipment, safe transport of the vessel to and from the launch site, insuring that all required operational and safety equipment is on board, and enforcing safe behavior of all persons on board. I have thoroughly read and understand the contents of the Small Boat Use & Safety manual.

_____ DATE:_____

Boat Operator

Print, sign and submit to the Administrative Manager before operating any boats.

APPENDIX IV

4.2.2.1.1.	1

	must contain power-operated exhaust blowers controllable from the instrument panel.
	One approved device on each carburetor on gasoline engines installed after April 25, 1940, except outboard motors. Device must be marked to show compliance with SAE J-1928 or UL 1111 Standards.

* When fixed fire-extinguishing system is installed in machinery spaces, it will replace one B-1 type portable fire extinguisher.

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APPENDIX V.
AMSEA Vessel Operation Drill Sets, Certification Skills and Check o List

Verbalize ALL Throttle And Direction Changes, Wait for Receive Crew Responses.

1. Slalom Course
2. Figure Eights
3. Object Avoidance/Advance & Transfer
4. Stopping Distance (Safe Speed)

Return

1. Begin… Bow-on to first buoy
2. Back thru all (engines trimmed up lifts stern…)
3. Variations 1 – 2 engines
4. Bow thru all both engines

(Engine(s) Trim, Advance and Transfer, Wheel &Throttle Ctrl, Crew Positioning and Help, Lookouts, Close-Qtrs…)

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1. Begin 8s at <u>minimum</u> planning speed.
2. Turn as tight around buoys as possible.
3. Increase speed by approx 500 rpms and control max. to short of hooking a chine.
This is NOT an E or J turn but continuous turns.

(Hands on Wheel & Throttle, Centrifugal force, Advance and Transfer, Trim and Throttle, Safe Turning Speed, Verbalization, Crew Positioning, Lookouts assigned)

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or

Certification of operators is intended to assure that any person who operates a NOAA small boat has passed minimum criteria relating to knowledge and skill. The wide range of operational risks inherent in the vast array of NOAA small boat operations dictates that field activities