



ANN ARBOR FIRE DEPARTMENT

Standard Operating Procedures - 6.12 Boat Operations



BOAT OPERATIONS

Effective: August 8, 2025
Scheduled Review: August 8, 2027
Approved: Fire Chief Mike Kennedy

I. PURPOSE

To establish a standard for training and operations of the rescue boat.

II. DEFINITIONS

Boat - The fire department operates a custom-made boat by Fire Responder Boats, LLC. The boat is a 2024 AB A16S shallow water aluminum rigid inflatable boat. It has the following features: custom jet hull with keel protector, .187" thick hull, padded deck, high flow drain scuppers, four heavy duty stainless lifting points, red sponsons with 1670 Decitex csm fabric. The boat is powered by a 2024 Mercury ELPT 90/65 four stroke jet motor with 20' shaft and four cylinders.

Boat Crew Member - Any person other than a passenger who is on board to perform duties related to the operation or maintenance of the boat. All operations personnel are expected to be able to function as a boat crew member.

- Boat crew members born after June 30, 1996 are required to have a Michigan Department of Natural Resources – Boater Education Card on file with the training division.
- Boat crew members shall receive fire department training prior to engaging in rescue operations.
- Must be able to swim while wearing required personal protective equipment.

Boat Operator (Helmsman) - The person responsible for steering and controlling the direction of the boat by operating the helm and throttle control. All driver / operators and firefighters are expected to be able to function as boat operators. Must have completed AAFD boat operator initial training program and shall operate boat annually to maintain proficiency.

Passenger – Patient or individual who is riding in boat to reach land. Unless there is a rescue incident, the only allowed passengers are City of Ann Arbor employee(s) or employees(s) acting in an official capacity of local, state, or federal law enforcement, fire department, or ambulance service. Exceptions to this may only be granted by the assistant chief of operations or fire chief

III. HURON RIVER CURRENT

On-duty members, especially those assigned to Station 5, are encouraged to check the Huron River current each morning. This is available via the US Geological Survey, Huron River at Ann Arbor, MI monitoring location 04174500 (surface water, stream).

<https://dashboard.waterdata.usgs.gov/app/nwd/en/>



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River cubic feet per second (CFS) thresholds for rescue and training

- $\geq 1,200$ CFS: No boat operations without approval of on-duty battalion chief. Mutual aid rescue boat shall be requested for support. The assistant chief of operations or fire chief shall be notified. This notification shall occur as soon as possible. Minimum three (3) person crew.
- 850-1200 CFS: Requires approval of on-duty battalion chief. Minimum three (3) person crew.
- 400-850 CFS: standard operations with enhanced safety briefing.
- 200-400 CFS: standard operations.
- ≤ 200 CFS: training and operations permitted with standard precautions.

IV. TRAINING

All training shall have a written lesson plan with objectives, geographic location for launching of the boat, extent of travel, hazard assessment, and documented CFS for Huron River. Standard lesson plans will be available via the training division. Even with a standard lesson plan, the training officer, the assistant chief of operations or fire chief shall approve all training prior to the boat entering the water. Training requests and approval may occur on the day of the training.

No live victims; patient removal training will utilize the water rescue manikin.

A talk group will be determined for training along with a communications check.

Any desired training outside of a standard lesson plan shall be submitted to the training officer at least five (5) city business days prior to the scheduled training. In the absence of the training officer, the assistant chief of operations or fire chief may approve lesson plan.

The requirement for a written lesson plan with approval is absolute and applies to any use of the AAFD boat whether internal to the fire department or part of another team training such as the Washtenaw County Technical Rescue Team.

The day of the training, prior to the training, the lead instructor shall review the US Geological Survey, Huron River at Ann Arbor, MI monitoring location 04174500 (surface water, stream). <https://dashboard.waterdata.usgs.gov/app/nwd/en/> The discharge rate in cubic feet per second (CFS) shall be recorded on the lesson plan.

The fuel level of the boat shall be checked every 20 minutes during training. Extra fuel shall be accounted for training session lasting > 20 minutes. The boat shall be refueled every 40 minutes.

V. RESPONSE

The boat is stationed at Fire Station 5 (North Campus). For any reported incident on the Huron River, one member (non-probationary, cleared to drive emergency traffic) of the Ladder 1-5 will drive the water rescue vehicle and boat to the most appropriate launch site.



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VI. PRE-DEPLOYMENT CHECKLIST

- Confirm operational readiness: fuel, battery, radio in water proof bag, lights.
- Conduct visual inspection for hull integrity, valve pressure, and loose fittings.
- Confirm throw bags: minimum 2 bags, 75' minimum length.
Confirm appropriate PPE for all personnel: PFD, helmet, wetsuit/drysuit if needed.
- Verify mission plan, weather conditions, and water hazards.
- Ensure launch point is clear and coordinated with Incident Commander (IC).
- Conduct visual inspection of the trailer; straps, tires, tail lights.
- Operational check of the tow vehicle.

VII. PERSONNEL PROTECTIVE EQUIPMENT

Personnel Floatation Devices - shall be worn by all crew boat crew members and boat operators.

Helmets – shall be worn by all crew boat crew members and boat operators.

Dry Suits - Drysuits are typically used in colder water temperatures where exposure to cold water can lead to discomfort or hypothermia if not properly protected.

- Below water temp $\leq 60^{\circ}\text{F}$ or air temp $\leq 50^{\circ}\text{F}$: Drysuits are required. These are considered very cold conditions, and without proper insulation, the risk of hypothermia increases significantly.
- Below water temp $> 60^{\circ}\text{F}$ or air temp $> 50^{\circ}\text{F}$: Wetsuits are typically sufficient for most divers in these warmer temperatures. Drysuits are not usually necessary, but they might be used in specific situations where the crew member needs to minimize water exposure, e.g., contaminated water.

VIII. LAUNCHING

- Use designated ramp or access point.
- Shore-based crew assists with launch and secures trailer vehicle.
- Boat operator conducts engine start-up and systems check before departure.
- Maintain radio contact with IC.

IX. ON-WATER OPERATIONS

- Operate at safe speeds appropriate for conditions.
- Maintain situational awareness: other vessels, debris, victims, swift current, water depth, bridge height.
- Approach from downstream when possible to use current assistance
- Maintain minimum 10' foot safety distance until victim contact established.
- Engine to idle or off during final approach to victim.
- Designated crew members maintain constant victim visual contact.
- Victim assistance: Reach, throw, row, go - in that priority order. Deployment of personnel into the water from the boat is restricted to those personnel who are strong swimmers and ideally have had supplemental training.
- Multiple victim situations: Establish priority based on medical condition and water exposure time.
- Minimize wake near victims or personnel in water.



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- Constant boat crew member accountability required.
- If weather conditions allow, the boat crew is encouraged to transverse the section of the Huron River they are operating to ensure there are not additional people in distress. On numerous occasions, rescues have occurred of people who were not known people in distress.
- Unless the crew is engaged in active rescue operations, fuel status shall be checked at the 20-minute mark after launching. The boat shall be refueled every 40 minutes.

X. DEMOBILIZATION

- Return to launch point or designated retrieval area safely.
- Secure boat to trailer or shoreline.
- Perform post-mission debrief with all personnel.

XI. POST-OPERATION PROCEDURES

- Rinse boat, motor, trailer, and tow vehicle with fresh water.
- Refill fuel tank (straight recreational fuel – not mix) and recharge battery if needed.
- Grease Zerk fitting on the rear of the motor.
- Restock all supplies and inspect for damage.

XII. TOWING

The boat is not intended or designed for towing other boats nor is it designed to be towed. If the boat runs out of fuel or becomes inoperable, efforts shall be made to secure the boat to the shore or other anchor point. Any crew members or passenger need to be removed to the shore even if at a remote location. Getting crew members and passengers off the boat as soon as possible is the priority. Once crew members and passengers are safe. The assistant chief of operations or fire chief shall be notified. This notification shall occur as soon as possible.

Kayaks, inflatable devices, or other light-weight single or double occupancy smaller boats may be towed if necessary.

XIII. HOIST RESCUE – UNITED STATES COAST GUARD

In the event where shore or boat rescue have failed, a request shall be made to the US Coast Guard. The US Coast Guard Air Station Detroit is located on the Selfridge Air National Guard base. Air Station Detroit is dispatched from the Ninth District Command Center 1-800-321-4400.

The USCG will not provide a standing agreement to do a hoist rescue. However, if the incident commander or other senior officer calls with a person trapped and no other options, there is a good chance they will come.

Radio communication can be made with the air crew via the following MPSCS talkgroups. These are in the Statewide E zone on all radios.

Air LZ 1

Air LZ 2

USCG Aviation 1

USCG Aviation 2



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XIV. SIGNIFICANT INCIDENT

If during training or an incident, the boat capsizes, suffers significant damage rendering it not drivable, and / or any boat crew member or passenger who are thrown overboard, the following shall occur.

- The priority is to immediately get anyone who was thrown overboard to safety. Immediate medical attention and / or transport to an appropriate trauma center shall occur. **The crew members shall not continue training, rescue, or recovery efforts until notification of the assistant chief of operations or fire chief.** This notification shall occur as soon as possible.
- Effort shall not be made to flip over the capsized boat until the assistant chief of operations or fire chief has been briefed on the situation. Attempts should simply be made to secure the capsized boat to the shore or other anchor point.
- All members involved in a significant incident may need to provide statements prior to being released from duty.
- The Peer Support Team shall be notified as soon as possible.