

HIGH RISK/LOW FREQUENCY

HUDSON FIRE DEPARTMENT

Standard Operating Guidelines

GUIDELINES NO: 300.12

**SUBJECT: BOAT AND WATERCRAFT
OPERATIONS**

APPROVAL: Scott St. Martin, Fire Chief

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PURPOSE

This standard operating guideline addresses procedures detailing operation of Hudson Fire Department boats and watercraft: qualifications of personnel, care and maintenance of watercraft, requests for watercraft support, operating watercraft, and use of special equipment.

This guideline defines the operational guidelines for use of the water craft when conducting water rescue, fire suppression, training, and standby activities on the lake, river or bodies of water required.

RESPONSIBILITY

1. All Chief and Company Officers have the responsibility to comply with and ensure that the personnel under their command are adequately trained, fully understand, and comply with this guideline.
2. All firefighters have the responsibility to learn and follow this guideline

GUIDELINE

A. Personal Safety

1. Personnel are expected to ensure proper safety equipment is available prior to departure from land. They are also expected to bring with them any equipment necessary to provide the services required for that particular situation.
2. Personal Floatation Device (PFD) Use
 - a. The greatest risk to rescue personnel is that of drowning. The only adequate protection is by wearing a properly fitting, USCG approved type I or II (or better) PFD.
3. Fire Department personnel shall wear an approved PFD at all times while:
 - a. Riding in or on any watercraft while moving under power.
 - b. Engaged in any emergency response on or near the water.
 - c. Engaged in any operation in the water.
 - d. In any situation where the member is at risk for falling into the water.
4. Personnel are expected to know their own swimming ability limitations, and take appropriate measures to ensure their own safety, as well as the safety of any potential victims.
5. Boat operator must complete Wisconsin DNR Boater Safety course

B. Thermal Protection

1. Water surface water temperatures usually range into the low 30 degrees during the winter months. Operating in this environment can cause rapid incapacitation of rescuers and/or victims due to hypothermia. Adequate layering of suitable clothing is the most effective method for combating hypothermia. Hypothermia protection and treatment should also be considered early for all rescue victims.
2. Personnel shall place a high priority on immediately donning their cold water rescue suits for hypothermia protection.
3. Fire personnel will not enter the water to perform rescue functions unless they have an adequate level of thermal protection for the existing water temperature This may include a wet or dry suit, exposure suit (such as a Mustang Survival Suit), or other approved method.

4. The dive team should be requested for standby if needed. If suitable thermal protection is unavailable, alternative (non-entry) methods should be employed.
5. Personnel should expect ambient air temperatures to be much lower while operating on the water. Wind, blown across the water surface can significantly lower the air temperature. Fire personnel should anticipate and prepare for this factor prior to boarding any watercraft, taking a pessimistic approach to planning their environmental exposure.
6. Additional Personal Protective Equipment (PPE)
 - a. Fire Department personnel are expected to evaluate each situation and utilize an appropriate level of personal protection to ensure the safety of each individual member. In addition to thermal protection and an approved PFD, this may include head protection (water rescue helmet), gloves, foot protection, safety lines, waterproof flashlights and/or strobes, etc.
 - b. If an appropriate protection level cannot be achieved with the available resources, additional resources should be requested and alternative measures should be employed until an acceptable protection level can be attained.

C. General Watercraft Safety

1. Fire personnel may operate from fire department or another agency's watercraft (as available and appropriate). They should avoid operating from civilian watercraft, if possible, and should never operate from any watercraft in which the operator is impaired or when safety is in question.
2. Personnel must maintain adequate situational awareness at all times. Wind shifts, wakes & waves, and evasive steering movements may cause the watercraft to shift suddenly throwing riders about (causing injury). Personnel may also be thrown overboard, without warning. Good shoes, sure footing, good balance, and an adequate hand hold should be maintained whenever possible.
3. All deck areas and surfaces of should be kept clear and clean. Lines not in use should be properly stowed. Excess water should be cleared when possible. Emergency equipment should be properly managed, secured, and stowed when not in use. Adequate deck lighting should be used at night, when it does not interfere with operations.
4. When entering the water (either purposefully or accidentally), personnel are in danger of propeller strikes, getting hit by the hull, hypothermia, becoming entangled in lines, and other dangers. If incapacitated in the water (even while wearing an approved PFD), personnel can be in danger of drowning.

It is the responsibility of every member of the crew to manage safety practices for the entire operation.

D. Emergency Operations

1. At anytime personnel are operating on the water from a watercraft, the operator is ultimately in charge of and responsible for the watercraft.
2. The ranking Fire Department officer is ultimately in charge of the emergency operation. The operator or fire department member in charge should limit the number of personnel on the craft to the minimum necessary to safely manage the incident.
3. The operator or fire department member in charge must ensure that all rescue or fire fighting operations are conducted in a safe manner. If safety is compromised, the operation must be aborted or modified so that it can be carried out safely.
4. If it becomes necessary to enter the water, an operator will remain on-board the watercraft at all times. Watercraft will not be abandoned during emergency operations unless anchor or dock lines properly secure it.
5. The remaining personnel will perform scene safety & protection, radio, and rescue support functions. Radio contact with command and/or land units will be maintained whenever possible.

- E. EMS/Rescue Operations
1. When responding to EMS or rescue incidents, the operator on rank or fire department officer will ensure that appropriate EMS equipment is loaded on to the craft prior to departing the dock. This equipment will ensure that proper treatment can be initiated if indicated on a patient or victim while in the boat prior to transferring the patient to shore units.
 2. Any specialty medical equipment needed beyond First Responder level training should be the responsibility of EMS to request.
 3. Fire department personnel operating from watercraft should enter the water (such as to perform a rescue) **only as a last resort**. Crews should consider less dangerous intervention methods first, such as reach, throw, and then go.
 4. Entry into the water should only be considered if it could be accomplished safely and effectively.
 5. The dive team and a BC should be requested any time our crew members are entering the water to effect a rescue. Early deployment of the dive team will be critical to the survivability profile of a victim in the event the surface rescue is unsuccessful.
 6. Fire department personnel will not enter the water unless trained and equipped to perform the expected tasks. Adequate backup personnel should be readily available whenever possible. Only the minimum number of personnel needed to perform the expected tasks should be used, and exposure time in the water should be minimized as much as possible.
 7. If unable to complete the required tasks, personnel should move to a safe location (out of the water) to regroup. Additional resources should be requested to address the specific type of emergency at hand. Personnel operating in the water should be closely monitored for signs of hypothermia and distress. It may be necessary to rotate personnel to ensure safety.
 8. Water rescue operations may require multiple companies to complete the rescue safely. Boat based operations require personnel on the boat to pick up the victims and personnel on shore. An early request for additional resources (ALS, BC, Ambulance, etc.) will help to ensure that adequate personnel are deployed to safely manage the incident.
 9. Operations during cold weather indicate that personnel that enter the water will need to be evaluated as potential hypothermic patients. This factor will increase the total number of patients rapidly. The incident commander will need to be aware of this fact over and above the initial incident.
 10. A Spotter shall be assigned from the first arriving company on scene whose SOLE RESPONSIBILITY is to watch and monitor status of victim(s) in the water. The Spotter shall attempt to maintain constant eye contact with the victim until 1) The victim is rescued, 2) The individual is relieved or 3) The victim goes subsurface. The Spotter shall note the victim's last position and relay information concerning the victim.
 11. Initial size up should include the following:
 - a. Determine if incident is rescue or recovery.
 - b. Who is the Spotter?
 - c. Does she/he need assistance?
 - d. Consider the following factors:
 1. Access to water
 2. Proximity to shore
 3. Number of victims
 4. Weather condition/air and water temperature
 5. Technical Rescue Team/Dive Team
 6. Additional resources
 7. Other Hazards – fire, HazMat, submerged objects
 8. Water “Rapid Intervention Team”

12. Rescue options from watercraft should be considered and executed from low risk to high risk.
 - a. Reach: The first method of water rescue is to reach the victim with an object such as a pole, backboard, ladder, etc. Either the victim can pull themselves or be pulled to safety.
 - b. Throw: If reach is not possible then throw an item that will float such as a PFD, throw ring, or a rope bag to the victim. The device thrown should be attached to a rope so the victim can be rescued.
 - c. Go: The last resort is to enter the water and swim to the victim.
13. If the decision is to "GO" to effect the rescue, the Incident Commander will consider the following factors:
 - a. Need for additional Spotters
 - b. Exposure time of rescuers
 - c. Debris in water on surface and submerged
 - d. Distance to victim
 - e. Condition of victim

F. Subsurface Operations

1. Fire Department personnel will only operate below the water surface when utilizing reach tools and equipped to do so.
2. ***"Breath hold" dives by untrained individuals are dangerous, ineffective, and shall not be attempted.***
3. Hudson EMS Diver Team shall be called to handle submersion incidents, such as a drowning situation.

G. Qualifications of Personnel

1. WI DNR Boater Safety Course completed
2. Complete in house training with Hudson Fire Boat Operator