

 RB

Rebecca Biederman

## Become a River Boater



### On the River

#### [Listen to this introduction](#)

As the “Land of 10,000 Lakes” offers most boaters endless opportunities for fun on the water, boating on Minnesota’s rivers offers a unique experience that requires a bit more know-how to keep your boat, yourself, and your passengers safe.

This eLearning experience is tailored to people who have operated boats before, but are new to river boating, with boats less than 40 feet in length. The examples come from my personal experiences boating on the Lower St. Croix and Mississippi rivers of the greater Twin Cities region for the past few decades, but will be generally applicable to navigation of most rivers. The rules and regulations detailed here are specific to the state of Minnesota, they may differ depending on the state you live in.

≡ Lesson One: Safety Equipment

≡ Lesson Two: Avoiding Interactions with Law Enforcement

≡ Lesson Three: How to Interact with Law Enforcement

# Lesson One: Safety Equipment

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Parents model boat safety by wearing life jackets while boating with their children.

Image "Boating safety - Demonstrate safe boating habits to your children" by State Farm is licensed under CC BY 2.0

## Introduction to Lesson One

Boating on a river poses additional risks and potential hazards as compared to lakes. While some safety equipment is required by law, there are additional items that are also essential to have on board in order to be prepared for many common situations that arise.

## Learning Targets

By the end of this lesson you will be able to...



Identify required and recommended safety equipment for river boating.



Explain the correct application and use of safety equipment.

## Required Boat Safety Equipment

In the busiest areas of the Lower Saint Croix and Mississippi Rivers it is common to see law enforcement officers, out on the weekend, patrolling the busiest sections of the river. They often stop boats and conduct safety checks. If pulled over by an officer, you will be asked to present your [registration card](#) and often they will check your boat for required safety equipment. If you do not have these required items you may be issued a ticket.

LIFE JACKETS	THROWABLE	FIRE EXTINGUISHER	HORN OR WHISTLE	BAT

Life jackets must be [U.S. Coast Guard \(USCG\) Approved](#). You need one life jacket for each person on the boat. They need to be correctly sized for each person as well.



LIFE JACKETS	THROWABLE	FIRE EXTINGUISHER	HORN OR WHISTLE	BAT
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A throwable is a floating cushion or ring that can be tossed to people who are in distress, in the water. It is required for all boats 16 feet or longer and must be kept within reach of the driver.



LIFE JACKETS	THROWABLE	FIRE EXTINGUISHER	HORN OR WHISTLE	BAT
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Fire extinguishers must be marine type, USCG approved. Boats under 26 feet need one and boats 26-40 ft need two (size B1).



LIFE JACKETS	THROWABLE	FIRE EXTINGUISHER	HORN OR WHISTLE	BAT
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Boats over 16 feet require a whistle or horn. If your boat does not have a horn hardwired in, you can purchase a signal horn or whistle.



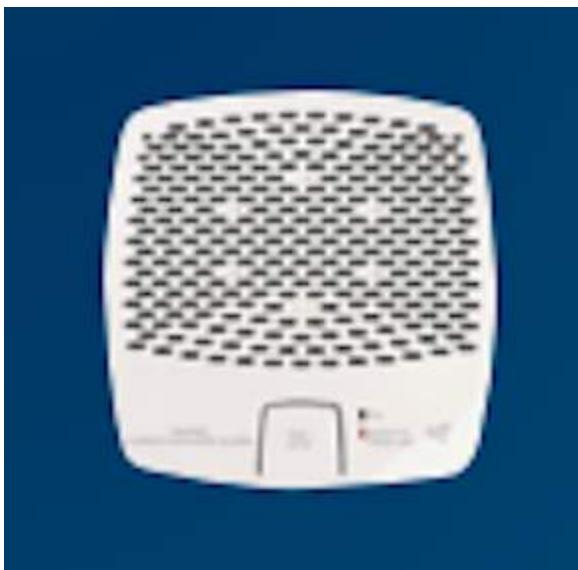
LIFE JACKETS	THROWABLE	FIRE EXTINGUISHER	HORN OR WHISTLE	BAT
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If your battery is not enclosed you will need to cover the terminals with caps or put the entire battery in a battery box.



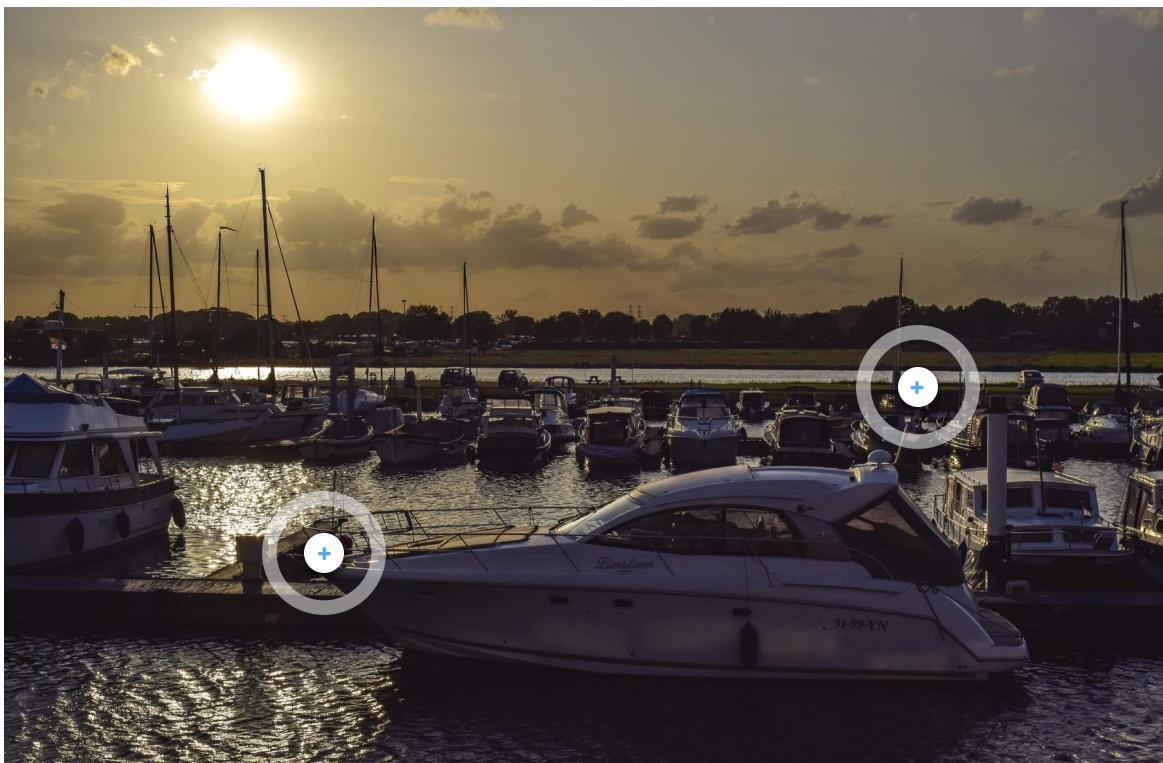
LIFE JACKETS	THROWABLE	FIRE EXTINGUISHER	HORN OR WHISTLE	BAT

Marine rated CO2 detectors are required for any boats that have enclosed cabin spaces or gas generators.



## Required Navigation Lights

The labeled image below shows the required location of navigation lights for boats under 40 feet in length.





## Rear Navigation Light

This light must be a 360 degree white light. It must be turned on from sunset to sunrise. It is a good idea to check that your lights are working before heading out for an evening boat ride.



## Forward Navigation Light

The front of your boat needs a 225 degree, red-green combination light. Most boats 16 feet or longer will have proper navigation lights installed from the manufacturer.

## Recommended Boat Safety Equipment

In addition to the required items above, these additional, recommended items will ensure you have everything you need.

## Pulling Up

Whether pulling up to a dock, a beach or just anchoring out to swim, these are essential pieces of equipment to have on board.

### Fenders

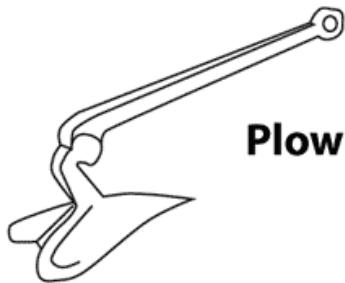
Protect your boat from damage by putting out fenders when you dock or pull up alongside other boats. For boats under 40 feet four to six fenders are recommended.

Image "Hammer Throw" by FaceMePLS is licensed with CC BY 2.0.

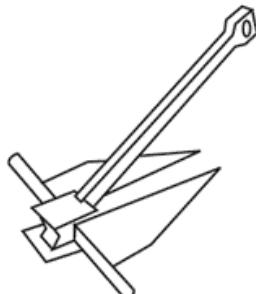


## Anchors

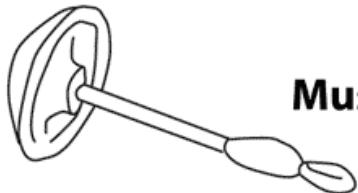
It is best to have two anchors on board for front and back when needed due to wind and current conditions. It is a good idea to carry different types of anchors as well for various river bottom conditions. Anchors need to be of [appropriate weight and size](#) for your boat.



**Plow Style Anchor**



**Fluke Style Anchor**



**Mushroom Type Anchor**

#### **Sand Stakes with Lines**

Secure your boat to the shore and prevent current or waves from dislodging it. Lines should be about 10 feet longer than your boat.



## Boat Hook

A boat hook can help you catch the dock or push away from other boats or objects that are getting too close to your boat. It extends from four feet to twelve feet in length.



## Equipment, Tools and Parts

Some pieces of equipment can help you avoid accidents, but when things do go wrong you will want some tools and parts within reach when needed.

### Depth Finder

The depth of the river can vary greatly throughout the year and can change dramatically within just a few feet. Many boats may have these installed from the manufacturer, but if your boat does not have one you will want to pay close attention to where other boats of a similar size to yours are traveling.



### Bilge Pump

Consider adding a bilge pump if your boat is not equipped with one already or be sure to have a bailing device such as a bucket.



## Flashlight

For investigating mechanical problems in low light conditions a good flashlight is key.

Image "CreativeTools.se - PackshotCreator - Genzo LED flashlight v4" by Creative Tools is licensed with CC BY 2.0.



## Tool Kit

Screw drivers, ratchet set, pliers, utility knife, duct tape, zip ties are all suggested items for your tool kit.



## Extra Propeller

When a propeller sustains damage from rocks, logs or other submerged obstacles it is helpful to have an extra on board.



## **Jump Starter**

If your battery is drained from use of accessory equipment when the engine is not running (such as running the stereo when pulled up on the beach), then a portable jump starter can help to get your engine started again.



## When You Need Help

When you encounter engine trouble, or have an emergency, these items are important to have within reach.

### VHF Radio

For communication with bridge tenders, lock masters and for emergency situations.



## Flares

Signal authorities or other boats in emergencies that you may encounter. Flares have expiration dates so make sure to dispose of expired flares and replace with new ones when needed.



## Oar

If you lose engine power and need to get to shore, or out of the way of other boats, this is a handy piece of equipment to have on your boat.



## First Aid Kit

Be ready to treat yourself and others when injuries occur on the water or the beach.



## Selecting Anchor Line

TYPES	LENGTH	DIAMETER	TIPS

- Nylon rope is best for marine conditions.
- You can use with or without a chain that attaches to the anchor.
- A three-stranded braided line is recommended.



TYPES	LENGTH	DIAMETER	TIPS
<ul style="list-style-type: none"><li>• Line that is 150 feet to 200 feet in total length is sufficient.</li><li>• You will want one anchor line for each anchor on board.</li></ul>			

TYPES	LENGTH	DIAMETER	TIPS

- Select a line that has a diameter of  $\frac{5}{8}$  inch -  $\frac{3}{4}$  inch, it is the easiest to grip and good for boats up to 40 feet long.

TYPES	LENGTH	DIAMETER	TIPS
<ul style="list-style-type: none"> <li>• Put out 5-7 feet of anchor line for every foot of water depth.</li> <li>• The more line you put out the more likely the anchor is to hold the boat in place.</li> <li>• Keep in mind how your boat might swing relative to other boats or obstructions due to wind or current.</li> <li>• Select a point on the shore to monitor that is in alignment to your boat. You want to make sure your anchor is set and that you are not drifting down river.</li> </ul>			

## Selecting Dock Line

TYPE AND QUANTITY	DIAMETER	LENGTH
<ul style="list-style-type: none"> <li>• Dock line has a loop on one end for tying up to docks or other boats and is made of nylon.</li> <li>• Carry 4 dock lines on your boat, for each side of the front and back.</li> </ul>		

**Double Braided Nylon**

# Premium Dock Line

with 12" (305mm) Spliced Eye



No Hassle  
West Marine  
Guarantee



**TYPE AND QUANTITY**

**DIAMETER**

**LENGTH**

- Dock line should have 1/8 inch of diameter for every 9 feet of boat length with a minimum size of 3/8 inch.

**TYPE AND QUANTITY**

**DIAMETER**

**LENGTH**

- The length of each dock line should be close to  $\frac{2}{3}$  of the boat's length for use from the front or back of the boat.

## You Have Completed Lesson One

See if you can drag the following items into the correct category and then give the quiz a try.

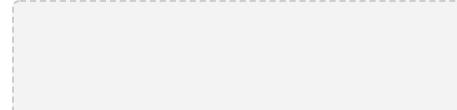
Required Safety Equipment

Life Jackets

Horn

Throwable

Navigation Lights



## Recommended Safety Equipment

**Fenders**

**Tool Kit**

**Jump Starter**

### Lesson One Quiz

How many U.S. Coast Guard approved life jackets are required on your boat?

- One for each seat on your boat
- One for each passenger on your boat

It depends on the length of your boat

It depends on the type of your boat

**SUBMIT**

What type of fire extinguisher are you required to have on your boat?

Marine type

Carbon Dioxide type

Foam Type

Clean Agent Type

**SUBMIT**

Where is the best place to store your throwable?

---

- In the front of the boat
- Within the lowest level of the boat
- In the storage locker
- Within arms reach of the driver

**SUBMIT**

Navigation lights are required to be turned on at sunset.

---

- True
- False

SUBMIT

Which of the following items would be most important to have available if your engine failed while out on the river?

- Oar, anchor, horn, marine radio
- Beach stakes, dock line, throwable
- Extra propeller, battery box
- First aid kit, fenders, navigation lights

SUBMIT

When anchoring in 20 feet of water, about how much anchor line should you put out?

- 50-90 feet
- 100-140 feet
- 160-200 feet
- 220-260 feet

SUBMIT

If you have an 18 foot boat, approximately how long should your dock lines be?

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- 6 feet
- 12 feet
- 18 feet
- 24 feet

SUBMIT

## Lesson Two: Avoiding Interactions with Law Enforcement

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A sheriff's patrol boat on the river.

Image "Ramsey County Sheriff's Office" by Crown Star Images is licensed with CC BY 2.0.

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**Why do officers pull over boaters?**

Understanding these common mistakes can keep you safe and reduce your potential encounters with law enforcement.

## Learning Target

By the end of this lesson you will be able to...



Recognize and avoid common mistakes that result in interactions with law enforcement on the river.

## Mistake #1: Children Without Life Jackets

**Learn more about who needs to wear life jackets and when life jackets are not required.**

REQUIREMENTS	SIZES AND TYPES	EXCEPTIONS
<ul style="list-style-type: none"><li>• Minnesota state laws requires life jackets for children under 10 years of age whenever the boat is moving.</li><li>• For all those aged 10 and older, life jackets must be within easy reach, one for each person.</li><li>• Keep in mind, a river has the added dangers of the current and low water clarity so keeping all people who are not strong swimmers in life jackets is always recommended.</li></ul>		



REQUIREMENTS	SIZES AND TYPES	EXCEPTIONS
<ul style="list-style-type: none"><li>• All of the life jacket types below are approved for use on recreational boats.</li><li>• Inflatables are only for those 16 years of age and older and are not used for water skiing or tubing.</li><li>• All life jackets should say U.S. Coast Guard Approved on them.</li></ul>		

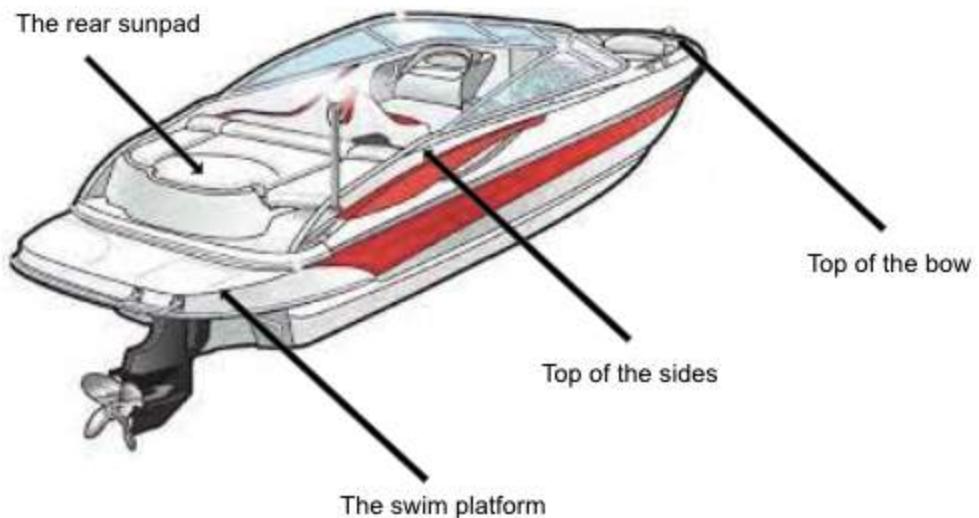


REQUIREMENTS	SIZES AND TYPES	EXCEPTIONS
<p>Life jackets are not required for kids under age 10 when:</p> <ul style="list-style-type: none"> <li>• In an enclosed cabin or below the top deck of a boat.</li> <li>• On an anchored boat that is used as a platform for swimming or diving.</li> </ul>		

## Mistake #2: Incorrect Seating

**There are places on your boat where your passengers cannot be when the boat is in motion.**

Do not sit in these places when the engine is on.



RIDE INSIDE

SIT IN A SEAT

CAPACITY AND  
OVERCROWDING



**RIDE INSIDE**  
Bow riding, or sitting on the edge of  
a moving boat, is illegal. A fall can  
put you in the path of the propeller,  
causing death or serious injury.

**RIDE INSIDE****SIT IN A SEAT****CAPACITY AND  
OVERCROWDING**

Although it is not illegal to stand up when the boat is in motion, it is risky. Encourage passengers to stay seated or to hold on to something sturdy if standing.

It is illegal to:

- Sit on top of seat backs.
- Sit on an engine cover.

**RIDE INSIDE****SIT IN A SEAT****CAPACITY AND  
OVERCROWDING**

- Boats on the river with lots of people aboard are commonly stopped by law enforcement, so make sure you don't have too many passengers.
- Your boat's capacity plate, installed by the manufacturer, states the maximum number of people and weight aboard the boat to avoid the boat being swamped or overturning when encountering large waves.

### **Mistake #3: Alcohol Consumption**

**Always plan to have a sober driver on the river.**

# .08

**DON'T**  
**GO OVERBOARD**  
Know your alcohol limit when boating.



## It's the Law

- In Minnesota it is illegal to drive a boat over the legal blood alcohol limit of .08.
- Driving carelessly or recklessly with a blood alcohol level of .04, is also illegal.
- Boating While Intoxicated (BWI) carries the same consequences as Driving While Intoxicated (DWI).

## Mistake #4: An Uncontrolled Wake

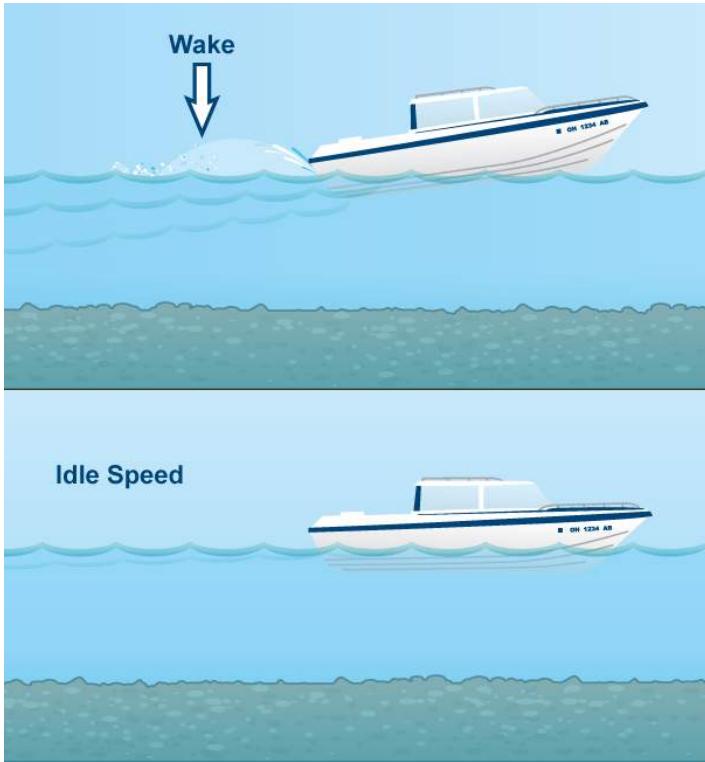
On the river you need to be aware of, and responsible for, the size of your boat's wake (waves produced by your boat) at all times.

### LIABILITY

### NO WAKE ZONES

### INSIDER TIP

- You can be held liable for damage done to property on shore, or on the water, as a result of your wake.
- Observe the speed of other boats in a given area and consider how the size of your wake might impact others, whether they are on shore, or water.



#### LIABILITY

#### NO WAKE ZONES

#### INSIDER TIP

- Slow no-wake speed means the slowest possible speed to maintain the steering capacity of your boat, but no greater than 5 mph.
- No-wake zones on the river are clearly marked by white buoys with orange stripes and writing that says, No Wake.
- Be aware of where the no-wake zones are on the river.
- Completely eliminate your wake before you cross into a no wake zone.



#### LIABILITY

#### NO WAKE ZONES

#### INSIDER TIP

When the St. Croix River is above 683 feet MSL (Mean Sea Level) it means the entire river becomes a no wake zone, so [check the river level](#) prior to departure, especially in the Spring.

This rule helps to protect:

- Boaters from flood debris and strong currents.
- Shorelines, islands and levees from damage.

## You Have Completed Lesson Two

See if you can successfully avoid being pulled over by law enforcement and keep your passengers safe with this quiz.

Minnesota state law says children of what age must wear life jackets whenever the boat is moving?

---

5

10

13

18

**SUBMIT**

When the boat is in motion, it is illegal for passengers to sit...  
(check all that apply)

---

On top of the bow of the boat

On the swim platform

In a seat

On top of a seat back

SUBMIT

Why is it dangerous to overcrowd your boat with people?

---

An overcrowded boat is a fire hazard

Large waves can overturn a crowded boat

It is more likely to cause a fuel shortage

SUBMIT

In the state of Minnesota, the blood alcohol limit for boating is the same as for driving a car.

---

True

False

**SUBMIT**

Which of the following is the top speed you can drive a boat in a no wake zone?

---

5 Miles Per Hour

10 Miles Per Hour

15 Miles Per Hour

SUBMIT

## Lesson Three: How to Interact with Law Enforcement

RB

Rebecca Biederman



A boater is stopped by law enforcement.

Image "Boat Safety Check" by MyFWC Florida Fish and Wildlife is licensed with CC BY-ND 2.0.

Although your goal is to avoid interactions with law enforcement officers, there are times when it is necessary, so it's important to handle it properly.

## Learning Target

By the end of this lesson you will be able to...



Explain how to interact with law enforcement on the river.

## Calling for Help

Use Channel 16 on a marine (VHF) radio to request help in an emergency situation and also dial 911 on your cell phone if you have reception. Channel 16 is monitored by emergency response agencies as well as other boaters who may be near you.



VHF Marine Radio

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## What to Say

- Start with “Mayday, Mayday, Mayday”
- This is...
- Describe your boat
- Explain your location

- Describe your type of distress
- Explain what type of help you need
- Report the number of passengers
- End with “Over”

## **Being Pulled Over**

Whenever law enforcement officers signal you to pull over (often using lights, sirens, or bullhorn) it is required that you stop and allow officers to pull up alongside your boat.

Minnesota Department of Natural Resources  
Watercraft Registration

**Number**

Expires:

Dec 31, 2022

Lienholders: Titled:

1

YES

**Name and  
Address Here**

Year 2017	Make MANITOU	Model 23 OASIS VP	Type: Use: PLEASURE
Length 23ft 0in	Hull ID TII86743J617		Hull: ALUMINUM Prop: PROPELLOR Drive: OUTBOARD

Fold here and keep with you when using watercraft  
I certify that the information above is true and correct.

Signature: \_\_\_\_\_

(not valid unless signed by owner)

1. This card must be available for inspection on board this boat.
2. Report any address change within 15 days.
3. For transfer of license, the buyer must submit an application/bill of sale with the transfer fee within 15 days (available at Deputy Registrar Offices).

Check here if you abandon or destroy this watercraft and return this registration card within 15 days.

(NON-REFUNDABLE)

\$57.10

\$4.50

\$61.60



This is not a bill of sale or a title

MDNR#:	675871941
04/12/2020 09:23	Agent 96023
Txn # 59211388	TID 0

## What to Do

- Do not turn off your engine, you need to maintain the ability to steer your boat and avoid collisions.
- Tell your passengers to stay seated.
- Turn down any music you may have playing.
- Be prepared to show the officers your registration card. In Minnesota the card is actually a sticker that you should keep on board.
- Officers may choose to do a safety equipment check, so be ready to show them the required items listed in lesson one of this learning module.

## Getting Out of the Way

All boats must give right-of-way to law enforcement watercraft displaying a red or blue flashing light.



Stay clear of law enforcement when lights are flashing.

---

## Where to Go

When approaching or passing a law enforcement boat with lights flashing:

- Safely move your boat away from the law enforcement boat.
- Maintain a slow-no wake speed while within 150 feet of range.

## You Have Completed Lesson Three

Take the quiz to see if you know how to successfully interact with law enforcement on the river.

You should stop your engine when being pulled over by law enforcement.

---

True

False

**SUBMIT**

What channel on the VHF radio is used to call for help in an emergency?

---

1

9

16



911

SUBMIT

When passing a law enforcement boat with flashing lights you must stay at least how many feet away from them?



150



300



500



1,000

SUBMIT