

Before going out on the water, take steps to make the outing safe and enjoyable.

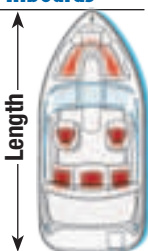
Vessel Length Classes

- ◆ A vessel's length class dictates the equipment necessary to comply with federal and state laws.
- ◆ Vessels are divided into four length classes:
 - Less than 16 feet
 - 16 feet to less than 26 feet
 - 26 feet to less than 40 feet
 - 40 feet to less than 65 feet
- ◆ Length is measured from the tip of the bow in a straight line to the stern. This does not include outboard motors, brackets, rudders, bow attachments, or swim platforms and ladders that are not a molded part of the hull.

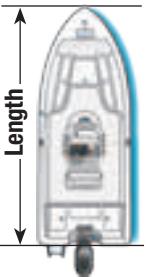
Vessel Capacity

- ◆ Always check the capacity plate usually found near the operator's position or on the vessel's transom. This plate indicates the maximum weight capacity and maximum number of people that the vessel can carry safely.

Inboards



Outboards



- ◆ Personal watercraft (PWCs) and some other vessels do not have a capacity plate. Always follow the recommended capacity in the owner's manual and on the manufacturer's warning decal.

Fueling a Vessel

Never fuel at night unless it is an emergency. If you must refuel after dark, use only electric lights. Try to refuel away from the water or on a commercial fueling ramp.

◆ Before beginning to fuel:

- Dock the boat securely and ask all passengers to exit.
- Do not allow anyone to smoke or strike a match.
- Check all fuel lines, connections, and fuel vents.
- Turn off anything that might cause a spark—engines, fans, or electrical equipment.
- Shut off all fuel valves and extinguish all open flames, such as galley stoves and pilot lights.
- Close all windows, ports, doors, and other openings to prevent fumes from entering the boat.
- Remove portable fuel tanks and fill them on the dock.

The most important safe fueling practice ...

If your vessel is equipped with a power ventilation system, turn it on for at least four minutes after fueling and before starting your engine to remove gas vapors.

◆ While filling the fuel tank:

- Keep the nozzle of the fuel-pump hose in contact with the tank opening to prevent producing a static spark.
- Avoid spilling fuel into the boat's bilge or the water.
- Never fill a tank to the brim—leave room for gas to expand.

◆ After fueling:

- Wipe up any spilled fuel.
- Open all windows, ports, doors, and other openings.

Additional Safety Procedures for PWCs

- ◆ Do not tip the PWC in order to fill it all the way up. If the tank is overfilled, the fuel may expand and spill into the water.
- ◆ After fueling, open the door of the engine compartment and sniff to check for any evidence of gas fumes. Do this before starting the engine. If you do smell gas fumes, determine the source and make repairs immediately.

Filing a Float Plan

Before going out on a vessel, it is always a good idea to leave a float plan with a relative or friend, or at least with a local marina. A float plan should:

- ◆ Describe the vessel, including its registration number, length, make, horsepower, and engine type.
- ◆ State where you are going, the detailed route, your planned departure time, and your expected return time.
- ◆ Give the name, address, and telephone number of each person on board and an emergency contact.

Pre-Departure Checklist

You can help assure a good time while operating your vessel by performing this pre-departure check.

- ✓ Check the weather forecast for the area and timeframe during which you will be boating.
- ✓ Make sure that the steering and throttle controls operate properly and all lights are working properly.
- ✓ Check for any fuel leaks from the tank, fuel lines, and carburetor.
- ✓ Check the engine compartment for oil leaks.
- ✓ Check hose connections for leaks or cracks, and make sure hose clamps are tight.
- ✓ Drain all water from the engine compartment, and be sure the bilge plug is replaced and secure.
- ✓ Check to be sure you have a fully charged engine battery and fire extinguishers.
- ✓ If so equipped, make sure the ignition safety switch and wrist lanyard are in good order.
- ✓ Make sure you have the required number of personal flotation devices (PFDs), and check that they are in good condition.
- ✓ Leave a float plan with a reliable friend or relative.

Safe navigation on Alabama waterways is everyone's responsibility. All vessel operators are equally responsible for taking action necessary to avoid collisions.

Encountering Other Vessels

Even though no vessel has the "right-of-way" over another vessel, there are some rules that every operator should follow when encountering other vessels. It is the responsibility of both operators to take the action needed to avoid a collision. The following shows what to do when encountering another vessel.

To prevent collisions, every operator should follow the three basic rules of navigation.

- ◆ Practice good seamanship.
- ◆ Keep a sharp lookout.
- ◆ Maintain a safe speed and distance.

Encountering Vessels With Limited Maneuverability

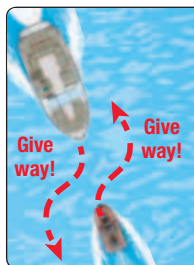
- ◆ When operating a power-driven vessel, you must give way to:
 - Any vessel not under command, such as an anchored or disabled vessel

- Any vessel restricted in its ability to maneuver, such as a vessel towing or laying cable, or a vessel constrained by its draft, such as a large ship in a channel
- A vessel engaged in commercial fishing
- A sailboat under sail unless it is overtaking
- ◆ When operating a vessel under sail, you must give way to:
 - Any vessel not under command
 - Any vessel restricted in its ability to maneuver
 - A vessel engaged in commercial fishing

Navigation Rules

There are two terms that help explain these rules.

- ◆ **Stand-on vessel:** The vessel which should maintain its course and speed
- ◆ **Give-way vessel:** The vessel which must take early and substantial action to avoid collision by stopping, slowing down, or changing course



Power vs. Power

Meeting Head-On

Power vs. Power: Neither vessel is the stand-on vessel. Both vessels should keep to the starboard (right).

Power vs. Sail: The powerboat is the give-way vessel. The sailboat is the stand-on vessel.



Power vs. Sail



Power vs. Power



Power vs. Power

Crossing Situations

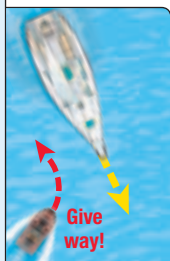
Power vs. Power: The vessel on the operator's port (left) side is the give-way vessel. The vessel on the operator's starboard (right) side is the stand-on vessel.

Power vs. Sail: The powerboat is the give-way vessel. The sailboat is the stand-on vessel.

Overtaking

Power vs. Power: The vessel that is overtaking another vessel is the give-way vessel. The vessel being overtaken is the stand-on vessel.

Power vs. Sail: The vessel that is overtaking another vessel is the give-way vessel. The vessel being overtaken is the stand-on vessel.



Power vs. Sail



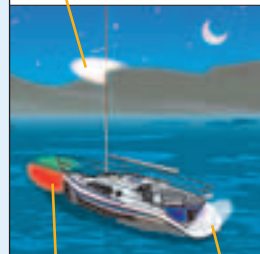
Power vs. Sail

Nighttime Navigation

Be on the lookout for the lights of other vessels when boating at night. Several types of lights serve as navigational aids at night. There are four common navigation lights.

- ◆ **Sidelights:** These red and green lights are called sidelights (also called combination lights) because they are visible to another vessel approaching from the side or head-on. The red light indicates a vessel's port (left) side; the green indicates a vessel's starboard (right) side.
- ◆ **Sternlight:** This white light is seen from behind or nearly behind the vessel.
- ◆ **Masthead Light:** This white light shines forward and to both sides and is required on all power-driven vessels. A masthead light must be displayed by all vessels when under engine power. The absence of this light indicates a sailboat under sail.
- ◆ **All-Round White Light:** On power-driven vessels less than 39.4 feet in length, this light may be used to combine a masthead light and sternlight into a single white light that can be seen by other vessels from any direction. This light serves as an anchor light when sidelights are extinguished.

masthead light
(225 degrees)



sidelights
(combination) sternlight

all-round white light
(360 degrees)

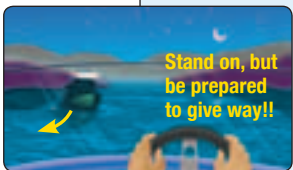


sidelights
(combination)

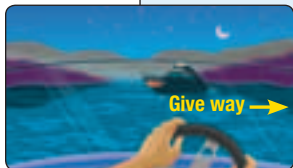
Encountering Vessels at Night



When you see only a white light, you are overtaking another vessel. It is the stand-on vessel whether it is underway or anchored. You may go around it on either side.



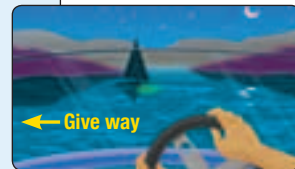
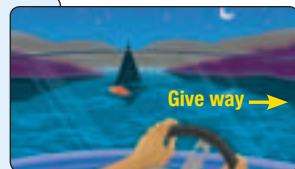
When you see a green and a white light, you are the stand-on vessel. However, remain alert in case the other vessel operator does not see you or does not know the navigation rules.



When you see a red and a white light, you must give way to the other vessel! Slow down and allow the vessel to pass, or you may turn to the right and pass behind the other vessel.

Encountering a Sailboat at Night

When you see **only a red light** or **only a green light**, you are approaching a sailboat under sail and you must give way. The sailboat under sail is always the stand-on vessel!



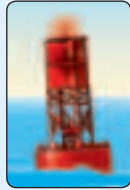
U.S. Aids to Navigation System (ATON)

Buoys and markers are the “traffic signals” that guide vessel operators safely along some waterways. They also identify dangerous or controlled areas and give directions and information. As a recreational boat or PWC operator, you will need to know the lateral navigation markers and non-lateral markers of the U.S. Aids to Navigation System.

Lateral Markers

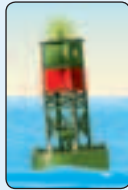
These navigation aids are used to mark the edges of safe water areas; for example, directing travel within a channel. The markers use a combination of colors and numbers, which may appear on either buoys or permanently placed markers.

Red colors, red lights, and even numbers indicate the right side of the channel as a boater enters from the open sea or heads upstream.



Green colors, green lights, and odd numbers indicate the left side of the channel as a boater enters from the open sea or heads upstream.

Red and green colors and/or lights indicate the preferred (primary) channel. If green is on top, the preferred channel is to the right as a boater enters from the open sea or heads upstream; if red is on top, the preferred channel is to the left.



Nuns are red cone-shaped buoys marked with even numbers.

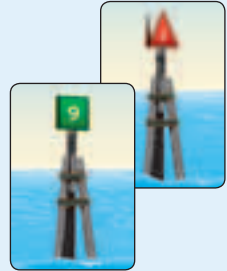


Cans are green cylindrical-shaped buoys marked with odd numbers.



Lighted Buoys use the lateral marker colors and numbers discussed above; in addition, they have a matching colored light.

Daymarks are permanently placed signs attached to structures, such as posts, in the water. Common daymarks are red triangles (equivalent to nuns) and green squares (equivalent to cans). They may be lighted also.



Red Right Returning is a reminder of the correct course when returning from open waters or heading upstream.

Non-Lateral Markers

Non-lateral markers are navigational aids that give information about topics other than the edges of safe water areas. The most common are regulatory markers, as shown below, that are white and use orange markings and black lettering. These markers are found on lakes and rivers.

Information

Squares indicate where to find food, supplies, repairs, etc. and give directions and other information.

Controlled

Circles indicate a controlled area such as speed limit, no fishing or anchoring, ski only or no skiing, or “slow, no wake.”

Exclusion

Crossed diamonds indicate areas off-limits to all vessels such as swimming areas, dams, and spillways.

Danger

Diamonds warn of dangers such as rocks, shoals, construction, dams, or stumps. Always proceed with caution.

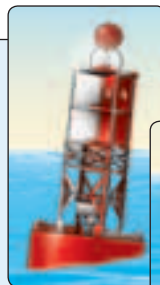
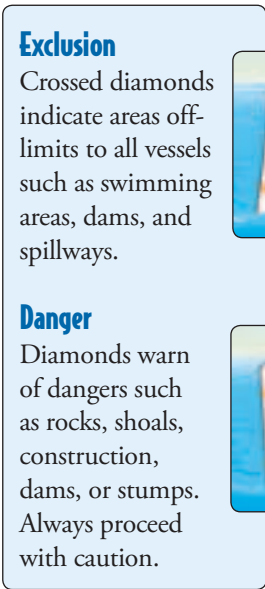
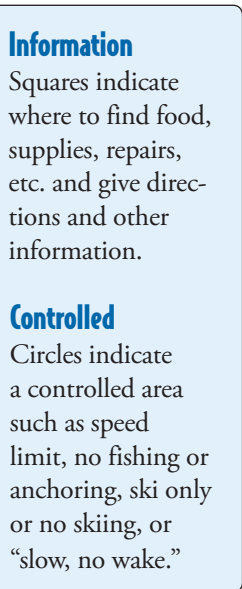
Other Non-Lateral Markers

Safe Water Markers are white with red vertical stripes and mark mid-channels or fairways. They may be passed on either side.

Inland Waters Obstruction Markers are white with black vertical stripes and indicate an obstruction to navigation. You should not pass between these buoys and the nearest shore.

Mooring Buoy

Another kind of buoy you may encounter is the mooring buoy. These are white with a blue horizontal band. They are usually placed in marinas and other areas where vessels are allowed to anchor.



Weather Emergencies

Weather can change very rapidly and create unexpected situations for vessel operators. Even meteorologists have trouble predicting rapid weather changes. You should always monitor weather developments. One way is to tune a VHF radio to the frequencies listed below.

VHF Frequencies Broadcasting NOAA Weather Reports

162.400 MHz	162.450 MHz	162.500 MHz	162.550 MHz
162.425 MHz	162.475 MHz	162.525 MHz	

VHF Channels for Recreational Boaters

6	.....	Intership safety communications only
9	.....	Communications between vessels (commercial and recreational), and ship to coast
13	.....	Navigational use by commercial, military, and recreational vessels at bridges, locks, and harbors.
16	.....	Distress and safety calls to U.S. Coast Guard and others, and to initiate calls to other vessels
22	.....	U.S. Coast Guard broadcasts of severe weather warnings, hazards to navigation, and other safety warnings
24-28	.....	Public telephone calls (to marine operator)
68, 69, 71	.....	Recreational vessel radio channels and ship to coast

What To Do If Caught in Foul Weather

- ◆ Be sure your personal flotation device (life jacket) is properly secured on your body.
- ◆ If there is fog, sound your fog horn.
- ◆ Head for the nearest shore that is safe to approach.
- ◆ Head the bow into the waves at a 45-degree angle. PWCs should head into the waves at a 90-degree angle.
- ◆ Reduce speed.
- ◆ Seat passengers on the bottom of the vessel, as close to the centerline as possible.
- ◆ Minimize the danger of having your vessel struck by lightning by seeking shelter in advance of a storm. If caught on open water during a thunderstorm, stay low in the middle of the vessel.
- ◆ Secure loose items. Have emergency gear ready.
- ◆ Keep the bilge free of water.
- ◆ If the engine stops, drop a “sea anchor” on a line off the bow to keep the bow headed into the wind and reduce drifting while you ride out the storm. In an emergency, a bucket will work as a sea anchor.

Other Boating Emergencies

A safe boater knows how to prevent and respond to other boating emergencies.

Falling Overboard

- ◆ **To prevent persons from falling overboard:**
 - Don't sit on the gunwale, bow, seat backs, motor cover, or any other area not designed for seating.
 - Don't sit on pedestal seats when underway at greater than idle speed.
 - Don't stand up in or lean out from the boat.
 - Don't move about the boat when underway.
- ◆ **If someone on your boat falls overboard:**
 - Reduce speed and toss the victim a throwable PFD.
 - Turn your boat around and slowly pull alongside the victim, approaching the victim from downwind or into the current, whichever is stronger.
 - Turn off the engine. Pull the victim on board over the stern, keeping the weight in the boat balanced.

Capsizing or Swamping

- ◆ **To reduce the risk of capsizing or swamping:**
 - Don't overload your boat. Balance the load.
 - Slow your boat appropriately when turning.
 - Secure the anchor line to the bow, never to the stern.
 - Don't boat in rough water or in bad weather.



- ◆ **If you capsize or swamp your boat, or if you have fallen overboard** and can't get back in:

- Stay with the boat.
- Try to reboard or climb onto it in order to get as much of your body out of the cold water as possible.

- ◆ **If the boat sinks or floats away,** don't panic.

- If wearing a PFD, remain calm and await help.
- If you aren't wearing a PFD, look around for one or for other buoyant items to use as a flotation device.
- In cold water, float rather than tread.

Hypothermia

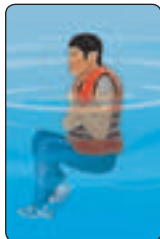
- ◆ **If you are boating in cold water:**

- Dress in several layers of clothing under your PFD or wear a wetsuit or drysuit.
- Learn to recognize the symptoms of hypothermia. Symptoms begin with shivering and bluish lips and nails, and progress to a coma and, ultimately, death.

- ◆ **To reduce the effects of hypothermia:**

- Put on a PFD if not wearing one. It helps you to float without excessive movement and insulates your body.
- Get as much of your body out of the water as possible.
- Don't take your clothes off unless necessary—clothes can help you float and provide insulation.
- Don't thrash or move about. Excess motion consumes energy and increases loss of body heat.

- Draw your knees to your chest and your arms to your sides, protecting the major areas of heat loss.
- If others are in the water with you, huddle together with your arms around their shoulders.



Carbon Monoxide Poisoning

Carbon monoxide is an invisible, odorless, tasteless gas that can be deadly. To prevent carbon monoxide poisoning, keep air flowing through the boat and take extreme caution when running a generator at a dock or at anchor.

- ◆ Whenever people are using a swim platform or are in the water close to the stern, turn off all gasoline-powered generators with transom exhaust ports.
- ◆ Swimmers should never enter the cavity between the swim platform and the stern of the boat.
- ◆ When boating, be careful running downwind as exhaust gases may blow back on board. On cabin cruisers, be aware that exhaust gases can blow back into the stern when traveling into the wind.



Preventing Theft

Defend against theft of your vessel and equipment.

- ◆ Store your vessel so that it is not easily accessed.
 - Store your vessel and trailer in a locked garage or storage area.
 - Park another vehicle in front of the trailer, or lock the trailer to a fixed object in a well-lighted area.
 - Secure the vessel and trailer to a fixed object with a good quality chain and lock. If moored, secure the vessel to the dock with a steel cable and lock.
 - Remove a trailer wheel if parked for an extended time.
 - Purchase a quality trailer hitch lock and use it.
- ◆ Chain and lock the motor and fuel tanks to the vessel.
- ◆ Mark or engrave all equipment with an identifier such as your driver's license number.
- ◆ Photograph or videotape the interior and exterior of your vessel, showing all installed equipment and additional gear and equipment. Make a complete inventory of your equipment, vessel, and trailer.
- ◆ Remove expensive electronics or other valuables if the vessel is left unattended.
- ◆ Cover your vessel and always remove the keys.
- ◆ Title and register your vessel.