

CHAPTER 3

IN THIS CHAPTER

- ⇒ Completing a pre-departure checklist and float plan
- ⇒ Fueling procedures
- ⇒ Trailering, launching, loading and retrieving
- ⇒ Lateral and non-lateral markers
- ⇒ Navigation tips, homeland security, theft prevention and law enforcement authority

LEAVING THE DOCK

Getting Ready to Go

Pre-Departure Checklist

Before leaving the dock, it is important to do a preliminary check of your boat's systems and orient your passengers to the location of the emergency equipment and basic functions of the boat. Your pre-departure checklist should at least include the following tasks:

1. Check to make sure you have all of the equipment required by both federal and state regulations.

CHAPTER 3 – LEAVING THE DOCK

2. Check your engine's oil and fluid levels. Make sure you have a full fuel tank.
3. Make sure battery connections are tight and the battery is fully charged.
4. Make sure there is a PFD onboard for every passenger and the PFDs are the right size for their users.
5. Make sure emergency, communication, and visual distress equipment are current (if applicable) and operational.
6. Inform your passengers of the locations of PFDs, Fire Extinguishers, Flares and First Aid Kit and how to operate the radio in an emergency
7. Show your passengers how to use the head (marine toilet) properly, handle lines, operate the boat in an emergency or rough weather conditions, anchor and what to do in a man-overboard situation.
8. An example of a Pre-Departure Checklist is included in the back of this manual.

Float Plan

Before leaving the dock on your boat, you should be sure to inform a local marina, relative or friend of your plans. It is always a good idea to file a float plan and have someone on shore that knows your plans and will take action if you fail to return on time. For short day trips, you can file a “casual” float plan by contacting a friend or family member and telling them where you will be boating and when you plan to return. Be sure to leave a phone number for local authorities as well as a date and time to contact the authorities if you have not yet returned from your trip. Always notify this person if your plans change and when you return home. For longer trips, leave a detailed information list describing the size and type of your vessel, its registration number, tow vehicle's license plate number (if applicable), trip itinerary, and expected time of return. Also include a list of all your passengers and an emergency contact for each of them. Your onshore contact will be

CHAPTER 3 – LEAVING THE DOCK

able to notify the U.S. Coast Guard (USCG) or other rescue organizations should you not return as scheduled. Inform your contact should you be delayed in your return. The contact should be aware that if you do not return as scheduled and it is approaching dusk, the call to alert appropriate authorities should be made sooner rather than later due to limited daylight. An example of a float plan is included in the back of this manual.

Fueling Procedures

Fueling is an important part of the boating process and should be undertaken with great care. Following improper fueling procedures could result in property damage, serious injury or even death. Before you begin fueling, stop all engines, motors, fans or other motorized devices that might produce sparks. If you operate a cabin motorboat, close all ports, windows, doors and hatches to keep volatile fumes from entering the cabin of your boat. During fueling, keep the nozzle of the fuel hose in contact with the fill opening to guard against possible static spark. Do not smoke, strike matches or throw switches when fueling. Be careful that no fuel spills into the boat hull or bilge. After fueling is complete, close the fill opening tightly, wipe up any fuel spills and open the ports, windows, doors and hatches, allowing the boat to ventilate for at least five minutes. If your vessel is equipped with a powered ventilation system or blower, run the blower for at least four minutes. Before starting your engine, perform a sniff test to make sure there is no gas odor in the engine room or any other compartment on your boat. Remember that if your vessel is equipped with a bilge, this is where gasoline fumes are most likely to accumulate. You should make sure to keep your bilge clean and free of trash to reduce the risk of a fire. If you are filling a portable fuel tank, do not fill the tank while it is on the boat. Instead, take the tanks ashore to be filled. When filling the tank, do not set it on the side of your boat or towing vehicle. Make sure it is firmly balanced on the ground to avoid accidental fuel spills. If possible, you should fuel your boat away from the water. This is because fuel can be harmful to the environment if it enters the waterway. Protecting your marine environment while fueling is further discussed in Chapter 6.

CHAPTER 3 – LEAVING THE DOCK

Trailer Your Boat

If your boat is not kept at a dock, you will probably need to become familiar with and understand how to load, tow, launch and retrieve your boat. Your boat's length, weight and hull style are all factors when selecting a boat trailer. Most boat dealers will assist you in choosing a boat trailer.



A boat trailer is designed to support the boat securely while the boat is being transported. Make sure your vehicle is capable of towing the trailer. Trailers have both a carrying capacity (how much weight it can carry) and gross vehicle weight rating (the carrying capacity plus the weight of the trailer). The trailer should be rated a weight that is sufficient to carry the boat, engine and any gear such as boating safety equipment that will be carried onboard while it is being towed. The standard rule of thumb is that a boat should weigh less than 90% of a trailer's carrying capacity. If the boat weighs 90% of the trailer's carrying capacity, a larger trailer should be used. The Owner's Manual of the tow vehicle will give its tow rating maximum that should be matched with the trailer's gross vehicle weight rating.

The trailer is attached to the towing vehicle by using a hitch. Hitches come in different shapes and sizes, but the most common is a ball hitch that is attached to your automobile. The tongue of the trailer has a coupler that fits over the ball hitch. It is important to remember that the size of the coupler must match the size of the ball hitch. A ball hitch has a tongue weight stamped onto the ball indicating the amount of weight a loaded trailer places on the hitch of the tow vehicle. If the tongue of the trailer is too heavy, the tow vehicle's steering will be negatively impacted. If there is too little weight on the hitch, the trailer will begin to sway. The tongue weight should be 7 to 10 percent of the combined weight of the trailer and boat.

CHAPTER 3 – LEAVING THE DOCK

Two safety chains should be part of your trailer equipment, and these chains must be strong enough to maintain control of the trailer if the hitch or coupling breaks. These chains are hooked between the frame of your automobile and the trailer in the form of an “X”, and should be long enough to allow the trailer to turn but not so long that they drag on the ground when the vehicle is in motion. The chain’s strength needs to be 1.5 times the maximum gross trailer weight. Licensing and lighting requirements may vary in individual states. Contact your state’s Department of Motor Vehicles for detailed boat trailer regulations.



Driving With A Trailer

When driving a vehicle towing a trailer, you should operate cautiously, considering the effect that the trailer may have on the safe operation of your towing vehicle. Observing the following practices when trailering will help you to safely arrive at the boat ramp for a fun day on the water:



- You should drive at a slower speed in order to keep the trailer under control. Driving at high speeds while towing could cause the trailer to sway and could result in you losing control of your towing vehicle. Consequently, the trailer could overturn or you could be involved in an accident with another vehicle in another lane of traffic.
- When turning, you should make wider turns to avoid running over curbs and causing danger to pedestrian traffic.
- Be aware that the combined weight of your towing vehicle and trailer will require you to allow greater distance and more time to stop.

CHAPTER 3 – LEAVING THE DOCK

- When passing other vehicles, be aware of the length added by your trailer to your towing vehicle. Be careful not to cut off other drivers.
- If you are towing a trailer for a long period, you should periodically stop and check the trailer for any damage or wear and tear to rigging, tires and bearings.

Launching

Before launching your boat, you should disconnect your trailer lights since they will burst when they are heated and then submerged in water. You should also make sure that you have put the plugs securely in your bilge. If the plugs are not firmly in place, your boat will quickly fill with water. When backing up, the trailer wheels and the wheels of the tow vehicle do not follow the same path. It is important to remember that the trailer will turn in the opposite direction of the tow vehicle. Maneuvering your trailer and tow vehicle efficiently takes practice. Practice backing up the trailer before you take it to the boat launch ramp. When launching your vessel, be sure that someone onshore holds a line attached to the vessel to prevent it from drifting away from the launch ramp. Following these simple steps will ensure that you have a great start to your day on the water.

Loading

When loading your boat, you should always keep safety in mind. Here are a number of things you should remember when loading your boat:

- Hand the boat supplies to someone who is already in the boat.
- Distribute the weight or load evenly.
- Make sure all passengers remain seated.
- Fasten equipment and gear to prevent shifting while underway.

CHAPTER 3 – LEAVING THE DOCK

- Do not exceed the U.S. Coast Guard Maximum Capacities listed on the boat's capacity plate.

Capacity Plate

It is required for all monohull boats under 20 feet built on or after November 1, 1972 to have a capacity plate approved by the U.S. Coast Guard (USCG). In addition, some manufacturers voluntarily install capacity plates

CAPACITY PLATE

U.S. COAST GUARD CAPACITY INFORMATION

MAXIMUM HORSEPOWER _____

MAXIMUM PERSONS CAPACITY (POUNDS) _____

MAXIMUM WEIGHT CAPACITY PERSONS MOTOR & GEAR (POUNDS) _____

THIS BOAT COMPLIES WITH U.S. COAST GUARD SAFETY STANDARDS IN EFFECT ON THE DATE OF CERTIFICATION

MODEL NO. _____ SERIAL NO. _____

MFD. BY _____

on boats larger than 20 feet. This plate must be visible from the operator's station. The capacity plate lists a safe motor size, the maximum number of persons to be carried onboard and the total weight the boat can carry including persons, motor and gear. When operating your boat be sure to adhere to the restrictions listed on the capacity plate. Not only is it dangerous to overpower or overload a small boat since they can swamp or capsize more easily, but it is also illegal. In addition, overloaded boats will be more difficult to control. In many states, there are fines and penalties for exceeding capacity recommendations, including carrying more than the maximum number of people.

For vessels that are not equipped with a capacity plate, the following formula can be used to calculate the number of persons (averaging 150 lbs each) the vessel can carry safely in good weather: **Number of people = vessel length (feet) X vessel width (feet) ÷ 15**

For example, if you are operating a 16 foot boat with a 6 foot beam (width) the maximum number of people the boat can hold would be calculated as follows:

$$\text{Number of people} = (16 \text{ ft} \times 6) / 15 = 6.4$$

Therefore, the maximum number of people that can be safely carried on this boat in good weather would be six.

CHAPTER 3 – LEAVING THE DOCK

Retrieving

When retrieving the boat from the water, remember to again disconnect the trailer lights. Back the trailer into water so that 2/3 of the rollers are submerged and set the emergency brake. Navigate the boat onto the trailer so the winch cable can be attached properly. Pull the boat onto the trailer by cranking the winch, and then attach the winch's safety chain to the trailer, as a precaution should the winch malfunction. Before leaving the boat ramp, make sure your boat is securely attached to your trailer, and the trailer to the tow vehicle. Once your boat is secured on the trailer, the first thing you should do is pull the trailer well away from the boat ramp as a courtesy to other boaters, allowing them access to the water body. After you have moved your trailer away from the boat ramp, be sure to reconnect the trailer lights. You should also clean your boat before leaving the ramp to prevent the spread of aquatic nuisance species.



U.S. Aids to Navigation (ATON)

Most people are so conditioned by highway signs and signals that they read them almost automatically. They hardly think about a stoplight, a yield sign or an exit sign; and they automatically respond to the given signal. Such actions are called conditioned responses. Driving or riding in a car is so much a part of our way of life that even people who do not know how to drive a car respond to traffic signals the same way that experienced drivers do.



Photograph Provided
by Paul Engle

Buoys and markers are the highway signs and signals that guide boat operators safely. The U.S. Aids to Navigation System uses lateral navigation markers and non-lateral markers to tell you where you should be in relation to the channel so that you can navigate safely and confidently.

CHAPTER 3 – LEAVING THE DOCK

This system was developed to govern boat traffic flow and prevent collisions. Be sure to familiarize yourself with the area where you will be boating and know your boat's ability to safely navigate the waters.

Non-Lateral Markers (Information and Regulatory Markers)

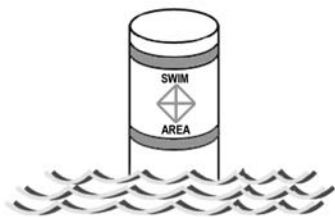
Uniform Waterway Markers, also known as Non-Lateral Markers, are used to notify boaters of some restriction. The most common non-lateral markers are white with orange horizontal bands on the top and bottom and black markings. They can be either buoys or posted signs.

These are examples of some of the markers you will see in the waterways:



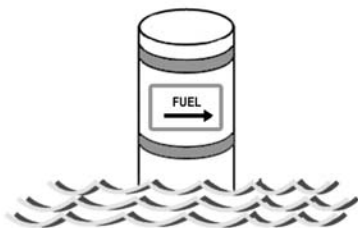
Diamond Shape

This sign warns of danger and marks objects that may cause damage to your boat. When seeing this sign you must proceed with caution.



Diamond Shape with Cross

This sign advises the boater that the entrance into this area with a vessel of any type is prohibited. An example of this is a sign designating a swimming area.



Square or Rectangle Shape

This sign displays non-regulatory information such as directions, fuel and dockage, and marinas.

CHAPTER 3 – LEAVING THE DOCK

Circle Shape

This sign indicates a controlled area and indicates the action required for this area. Examples include:

Slow Speed - Minimum Wake

Any vessel operating in a speed zone posted as “Slow Speed - Minimum Wake” must operate fully off plane and completely settled in water. The vessel’s wake must not be excessive nor create a hazard to other vessels.



Idle Speed – No-Wake

Any vessel operating in a speed zone posted as “Idle Speed – No-Wake” must operate at the minimum speed possible, while still being able to steer the boat.



Resume Normal Safe Operation

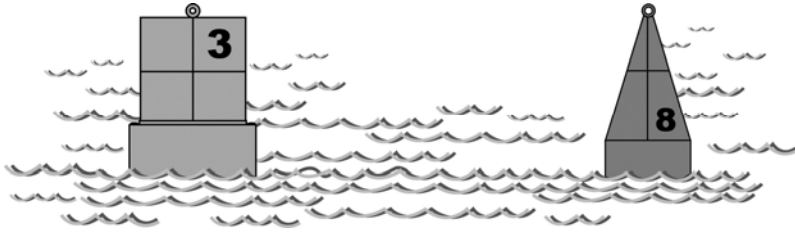
This indicates speed restrictions have ended and the vessel may resume a normal safe operating speed for conditions.



Lateral Markers

Lateral markers are the navigation signals in the water to mark safe water and to assist mariners in determining their position in relation to land and hidden dangers. They come in various sizes, shapes and colors. They will often be marked with a number, letter or a combination of numbers and letters. These numbers should match your nautical charts. Lateral markers can also be either lighted or unlighted. Lighted buoys flash in a regular pattern. These patterns are also indicated on nautical charts to assist boaters in identifying the buoys at a distance.

CHAPTER 3 – LEAVING THE DOCK



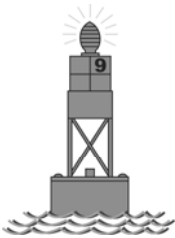
Can Buoy

These buoys are cylindrical in shape with a flat top and are always marked with green markings and odd numbers. They denote the left side of the channel when you are returning from the open sea or heading upstream.

Nun Buoy

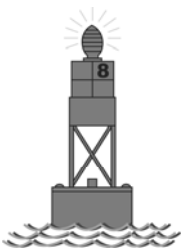
These buoys are the same size as a can buoy except they taper upward from the waterline to create a cone shape. They are always marked with red markings and even numbers and denote the right side of the channel when you are returning from the open sea or heading upstream.

Buoy Colors and Numbers



Port Side Aids

These buoys or markers are stationed on the left side of channel denoting the boater is returning from the open sea or heading upstream. They are green in color and marked with an odd number. If lighted, they are indicated by a green light. The numbers usually increase consecutively from the open sea.

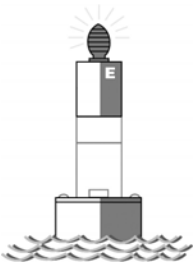


Starboard Side Aids

These buoys or markers are stationed on the right side of the channel denoting the boater is returning from the open sea or heading upstream. They are red in color and marked with an even number. If lighted, they are indicated by a red light. The numbers usually increase consecutively from the open sea.

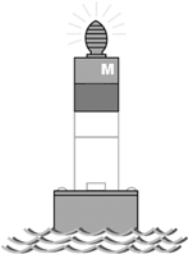
CHAPTER 3 – LEAVING THE DOCK

Safe Water Markers



Also known as Mid-Channel Markers, Safe Water Markers have vertical red and white stripes. They can be in the form of a lighted or unlighted buoy, a daymarker or a round buoy. If lighted, the light will be white. These buoys are not numbered but may be lettered. When one of these buoys is sighted, it indicates the middle of the channel and unobstructed water on all sides. They may be passed on either side.

Preferred Channel Markers



In some instances, a channel may be indicated with a lateral marker that has both red and green horizontal bands on the top. These are known as preferred channel markers. They are not numbered, but may be lettered. They also may be lighted, unlighted or in the form of a daymarker. Even though this marker appears to be confusing, it merely indicates that while boaters can operate on either side of the buoy in this area, there is a preferred channel. The color band on the top of the buoy indicates the direction of the preferred channel. Applying this knowledge, a buoy with a red horizontal band on the top followed by a green horizontal band should be viewed as a starboard side aid. It should be kept to the starboard (right) side of the vessel when returning from open water. Conversely, buoys with a green horizontal band on the top followed by a red horizontal band should be treated as port side aids and be kept on the port (left) side of the boat when returning from open ocean.

Daybeacons

Daybeacons are on fixed structures either in shallow water or on the shore. They are usually positioned on the left and right side of the channels. A green square daybeacon is similar to a can buoy, and a red triangle daybeacon is similar to a nun buoy.

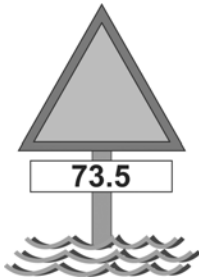


CHAPTER 3 – LEAVING THE DOCK



Intracoastal Waterway Markers

The Intracoastal Waterway (ICW) is a toll free waterway that is 3,000 miles long. It stretches along the Atlantic Coast from Boston, Massachusetts to Key West, Florida and along the Gulf of Mexico coast from Apalachee Bay, Florida to Brownsville, Texas. When traveling in the ICW, buoys and markers are identified with a yellow symbol. Markers with a yellow triangle should be kept on your starboard (right) side when you are heading in a southerly direction. The opposite is true for a marker displaying a yellow square. This marker should be kept on your port (left) side when passing.



Western Rivers System Markers

The Western Rivers System of markers is present on the Mississippi River and its tributaries. The markers within this system are similar to U.S. Aids to Navigation System lateral markers except these markers are not numbered. This system of markers identifies distance from the mouth of the river, by placing a sign below the daybeacon indicating the number of miles traveled. One exception is found on the Ohio River where the number of miles identifies the distance traveled from the headwaters instead of the mouth of the river.

An easy way to remember how to pass the buoys on the proper side is “Red, Right, Returning” when you are returning from sea. This means the red buoys should always be on your right (starboard) side when returning to port or when you are going up the river. If you are leaving port or going down a river, the red buoys should be on your left (port) side. When operating in the Intracoastal Waterway, keep the red buoys on your right (starboard) side when you are traveling south.

CHAPTER 3 – LEAVING THE DOCK

Navigation Tips

Night Navigation

At night, you should use navigation lights to know where and how a boat is positioned. Follow the same Rules of the Road as you would during the day. Of course, you should always operate at a slower speed and be on the look out for other vessels during times of restricted visibility, such as navigating in fog, storms or around tight corners. Use the sound signals prescribed by the Navigation Rules. These rules are described in Chapter 5 of this manual.

Safe Operation

A boat operator is ultimately responsible for the safety of all the passengers onboard, the boat and any damage the boat's wake might cause to another vessel and property ashore. To ensure a safe enjoyable boating experience for yourself, your passengers and other boaters, you should observe the tips described in the following sections.

Practice good seamanship

The person driving the boat is responsible for the safety of everyone onboard. He/She must monitor the boat traffic around his boats and conduct his boat accordingly. Avoid taking unnecessary risks that could endanger life, limb or property. If you allow another person to operate your vessel, complete an operations checklist with him, giving him an overview of the vessel's basic functions, how to operate it safely and where the boating safety equipment is located, ensuring that he knows the basics of safe boating.

Keep a sharp look out

Keeping a look out will prevent most collisions. It is important to look out for other boats, others involved in water activities and navigational hazards including objects in the water.

CHAPTER 3 – LEAVING THE DOCK

Maintain a safe speed

You must maintain a safe speed and a sufficient distance from other boats, shorelines or any other object, which allows you to take the necessary action to avoid a collision and stop within an appropriate distance. If waves get large, traffic increases, or bad weather moves in, reducing your speed and navigating with caution will help keep everyone safe. When determining a speed that is safe for the prevailing conditions, you should consider the following conditions:

- Amount of boat traffic including those vessels such as barges or fishing vessels that may be restricted in their ability to maneuver
- Visibility
- If at night, any background light that may cause difficulty in identifying shapes or seeing other vessels
- The maneuverability of the vessel being operated considering the distance needed to stop safely or turn
- Sea state, wind and current
- Distance from potential navigational hazards
- The depth of water the vessel can safely be operated in without running aground or causing damage to the local aquatic or marine environment.

Be a courteous boater

Be aware of your surroundings and other boaters near you. Be careful to control your wake so as not to swamp or capsize smaller boats such as kayaks or canoes. Give fishermen a wide berth so that you will not cut their fishing lines or upset their boats with your wake. If you are fishing or hunting, do not crowd other boaters enjoying the same activity. When boating in a residential area, control your boat noise so as not to be offensive to the local

CHAPTER 3 – LEAVING THE DOCK

community. Do not moor or anchor your boat close to a stranger's property unless given permission. When launching your boat on a boat ramp, do initial launch preparations away from the ramp so as not to impede launching for others. If another boater signals for help or assistance, be sure to see if there is anything that you can do. Being respectful to others while boating allows everyone to have fun on the water.

Theft Prevention

To protect yourself in the event of boat theft you should maintain the appropriate documentation for your vessel. Keep copies of your registration, certificate of number and your original title in a safe place off your vessel. Make a note of your HIN number since this is used to track your vessel. It is also a good idea to take photos of your boat so that you can provide them to the appropriate authorities and/or insurance companies. To reduce the risk of your vessel being stolen:

- Store your boat and trailer in locked storage area.
- Secure your boat to a mooring with steel cable and lock.
- Put identification marks on equipment and photograph the interior and exterior of your boat.

Homeland Security

Boaters should be aware of and comply with new Homeland Security measures set forth by federal, state, and local governments. These should include, but are not limited to, keeping a safe prescribed distance from military and commercial ships and avoiding commercial port operations areas, observing all security zones and following guidelines for appropriate conduct, such as not stopping or anchoring beneath bridges or in a channel.

Due to the vast amount of shoreline in our country, the U.S. Coast Guard has also recognized that boaters or other people near the water are more likely to observe a potential security threat than a U.S. Coast Guard officer. Because of this fact, the U.S. Coast

CHAPTER 3 – LEAVING THE DOCK

Guard has now implemented a national program that asks those on or near the water to be aware of suspicious activity that might indicate threats to our country's homeland security. Areas of particular concern are ports, docks, marinas, riversides, beaches, or shore communities. When near the waterfront or boating near terminals, tankers, or cruise ships boaters should watch for:

- People engaged in surveillance, taking notes or pictures and asking questions
- People who do not look like they belong near critical maritime facilities
- Strange items either being placed in or recovered from the water
- Unattended vehicles or boats in strange places
- Lights flashing between vessels
- Unusual diving activity
- Unusual people or numbers of people aboard a boat
- Strange night operations
- Boats in an unusual passage or anchorage
- Transfers of people or objects at unusual places
- Persons attempting to rent a boat with cash for short term undefined uses
- Small planes flying over critical areas or passages

If you observe any of these suspicious activities, you should contact the National Response Center at (800) 424-8802. You can also use your VHF Radio to hail the U.S. Coast Guard on Channel 16. When reporting suspicious activity over the VHF Radio, you should also take actions to protect yourself. If you are

CHAPTER 3 – LEAVING THE DOCK

reporting on illegal or suspicious activity, keep in mind that the person or persons involved in the illicit activity may also be monitoring Channel 16. It is a good idea to cruise out of sight before using the radio to make a report. Being alert on the water will help our nation protect its borders.

Law Enforcement Authority

The U.S. Coast Guard and other marine officers can stop you.

A USCG boarding officer or other marine officer who observes a boat being operated in an UNSAFE CONDITION, specifically defined by law or regulation, and who determines that an ESPECIALLY HAZARDOUS CONDITION exists, may direct the operator to take immediate steps to correct the condition, including returning to port. Here are some examples of termination for unsafe use:



- Insufficient number of USCG Approved PFDs.
- Insufficient fire extinguishers.
- Overloading beyond manufacturer's recommended safe loading capacity.
- Improper navigation light display.
- Fuel leakage.
- Fuel in bilges.

An operator who refuses to terminate the unsafe use of a vessel can be cited for failure to comply with the directions of a USCG boarding officer or other marine officer, as well as for the specific violations that were the basis for the termination order. Violators may be fined not more than \$1,000 or imprisoned not more than one year or both.