What’s Wrong With This Picture?
Litter can be dangerous to fish and other wildlife as well as boats. Always remember to put trash where it belongs and to take care of your environment.

For best results:
- Read the material on a page, paying special attention to words in bold.
- Answer the One Minute Mysteries.
- Check answers on the inside back cover (Page 14).
- Complete the crossword puzzle on Page 13. If you can correctly complete the crossword puzzle (without looking up the answers), you are ready to take a boating course that is offered in your state and to be a safe boater!

Waypoints are selected stopping points on a cruise which define the legs of the voyage. In this book, Waypoints are selected points in boating education which define the segments of this course.

NOTE: This book is based on Federal requirements. Owners/operators of watercraft should also consult appropriate authorities in the states where their boats are registered and operated to learn additional regulations.
It is important that you use the correct terminology when talking with other boaters. If you are facing forward while positioned near the center of the boat, the **bow** is the front end. The **helm** is the place from which to steer.

The **stern** is the rear portion of the boat. The **transom** is the very back board of the boat and, if the power for the boat is an outboard engine, that outboard engine will be mounted on the transom.

As you face forward, the left side of the boat is called the **port** side and the right side is called the **starboard** side. The bottom and sides, as a unit, are called the **hull**. The hull doesn’t include the seats or the floor, if there is a separate floor on which to walk.

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**Waypoints**

- Like to teach kids about safe boating? Become an official instructor for the United States Coast Guard Auxiliary. Call 1-800-368-5647.
- The U.S. Army Corps of Engineers invites you to lend a helping hand; a variety of opportunities await your call. Contact the Volunteer Hotline at 1-800-865-8337.

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### Parts of a Boat

![Diagram of a boat with parts labeled]

Write the correct term for each part of the boat by the numbers below:

1. ___________________________  5. ___________________________
2. ___________________________  6. ___________________________
3. ___________________________  7. ___________________________
4. ___________________________  **Answers on Page 14**
One wearable Type I, II, III, or V readily accessible personal flotation device (also called a life-jacket or PFD) must be carried for each person aboard a boat. On boats 16 ft. or longer, one Type IV must also be carried. Each PFD must be U.S. Coast Guard approved. Each wearable PFD must fit the intended user.

**Type I** is for offshore use. It will turn an unconscious person face up. **Type II** is for near shore use. It will sometimes turn an unconscious person face up. **Type III** is a flotation aid, designed for calm water and comfort, but won’t keep the wearer’s face out of water. Some are approved for use by waterskiers or with personal watercraft (check the manufacturer’s label). **Type IV** is a cushion, ring buoy or horseshoe buoy. It is designed to be thrown to a person in the water but not to be worn. **Tie a line to it.** **Type V** “devices” are for special purposes and must be used in accordance with the approval condition on the label. Varieties include boardsailing vests, deck suits, pullover vests, work vests, swimwear, etc.

**Waypoints**
- Carry one wearable Type I, II, III, or V “readily accessible” PFD for each person aboard a boat. On boats 16 ft or longer, also carry one Type IV.

---

Kathy was wearing her PFD and skiing along happily behind Lindy’s boat when she suddenly took a fall. Kathy tumbled about and, because her PFD came up over her eyes, lost track of which way was up. What was wrong that gave Kathy this problem?

*Answer on Page 14*
Before leaving home, leave a **float plan** with your family or a friend. It should, at minimum, tell where you will be and when you will return.

For a safe and good ride, the people and equipment should be placed so that the boat is **trimmed** (balanced in all directions). The **capacity plate** tells the allowed maximum number of people, maximum weight of people in pounds, maximum weight of people and equipment in pounds, as well as maximum horsepower for the engine.

Federal law requires that you carry a certain set of equipment when underway in order to operate your boat legally and safely. Descriptions of the items and the circumstances for carrying them are shown on the following pages.

**Find These Words in the Puzzle**

**Equipment You Are Required to Carry**

- DISTRESS (and) FLAG
- FIRE (and) EXTINGUISHER
- HORN
- LIFE JACKET (one per person)

**Equipment Recommended to Carry**

- ANCHOR
- FIRST AID KIT
- PADDLE
- SUNGLASSES
- SUNSCREEN

**Waypoints**

- File a float plan.
- Trim your boat.
- Obey your capacity plate.
- Carry the proper equipment.

**Word Search Puzzle**

(Solution on Page 14)

- R E H S I U G N I T X E
- E R I F P L A N G I S A
- P F D I S T R E S S F N
- N E E R C S N U S M L C
- H O R N P A D D L E A H
- S U N G L A S S E S G O
- T E K C A J E F I L I R
- F I R S T A I D K I T D

**Telephone numbers**

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</table>

**FLOAT or TRIP PLAN**

**Name of person reporting and telephone number:**

**Description of boat:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Color</th>
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<tbody>
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<tr>
<th>Trim</th>
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<table>
<thead>
<tr>
<th>Length</th>
<th>Boat Name</th>
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<table>
<thead>
<tr>
<th>Registration No.</th>
</tr>
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</table>

**Other Information:**

**Persons aboard:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Address and phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

**Trip time:**

- Leave at (Time):
- From: ______________________
- Going to: ____________________
- Expect to return by (Time):

**Other pertinent information:**

<table>
<thead>
<tr>
<th>Auto license no.</th>
<th>State</th>
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<table>
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<tr>
<th>Trailer License:</th>
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<tr>
<th>Color and make of auto:</th>
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<table>
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<tr>
<th>Where parked:</th>
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</table>

- Call the Coast Guard, or ____________________________ (Local Authority)

**Fill out a Float or Trip Plan** (like the one above) before you go out in your boat. Leave it with family or friends. Be sure to let them know when you return!
On waters more than two miles wide along the coast or connected to them, you must carry U.S. Coast Guard approved distress signals; a flag or orange smoke for day and flares at night. Boats 16 ft. or over always must carry day and night signals. Smaller boats are required only to carry night signals if operating between sunset and sunrise. The universal distress signal is to wave both arms up and down!

U.S. Coast Guard approved fire extinguishers are required on boats where a fire hazard could be expected from the motors or fuel systems. Type A puts out wood/paper fires; Type B (required on a boat!) puts out gasoline and oil fires; Type C extinguishes electrical fires. Carry Type B or BC on board; your boat’s length determines the size and number to carry. The boat’s design and power determines whether a fire extinguisher is required.

A sound-producing device is required. A whistle or horn is most often used.

Waypoints

- Certain Federally required equipment must be carried on a boat underway. Other equipment may be required by your state.
Navigation lights must be shown on boats operating between sunset and sunrise or in other periods of reduced visibility. Sailboats and motorboats both must have a **red sidelight on port** and a **green sidelight on starboard** as well as a **white stern light** facing rear. In addition, motorboats must have a white light facing forward (**masthead light**) above the sidelights. In small motor boats, the manufacturer often combines all the white light needs into one “**all-around white light**” at the stern.

**NOTE:** A sailboat, while using an engine, is considered a motorboat and must be lighted as a motorboat.

A **very small** boat propelled only by sail or by oars can carry a **lantern light** (as its only light) to be used when another boat is near.

**Waypoints**

Federal law requires navigation lights to be shown on boats operating between sunset and sunrise or in reduced visibility. The pattern is determined by boat length and type of propulsion.

In the picture above, what light will you see when you face the motorboat that you will not see when you face the sailboat?

**Answer on Page 14**
Personal watercraft, short boats with jet engines (sometimes called Jet Skis® or Wave Runners®), don’t need navigation lights when operated between sunrise and sunset. All aboard should wear U.S. Coast Guard approved PFDs carrying a label with a statement of approval for use with PWC or 50 mph dynamic testing. Many Type III PFDs are approved for use by water-skiers or with personal watercraft (check the manufacturer’s label).

Personal watercraft (PWC) must carry a sound-producing device, fire extinguisher, and the “kill-switch” lanyard (if provided) must be attached to the operator. Without throttle, there is no steering since a jet of water both propels and steers the boat.

Some states have age limits for operating PWC. Check your state’s requirements.

Waypoints
○ Personal watercraft must carry safety equipment like other boats.
○ All who ride or operate a PWC should wear U.S. Coast Guard approved PFDs with labels indicating approval for use with PWC.
○ A PWC can not be steered with throttle off.

One Minute Mystery
The first day Mattie and Carlos were riding their PWC together, a boat came by which made a great wake. They crossed it on the fly! In the process, they nearly collided with another PWC! What went wrong?

Answer on Page 14
Good steering is most needed in narrow places or near other boats. With cars, we speak of one car having “right of way.” With motorboats we speak of one boat being “stand-on” and the other being “give-way.” “Stand-on” means that the motorboat will keep going in the same direction with the same speed as before the other motorboat came near. “Give-way” means that the motorboat will change direction and also change speed so that it can stay clear or behind the other motorboat.

Meeting: Each motorboat turns away from the other, usually to starboard (right), unless there is an obstacle. Passing: The motorboat doing the passing is “give-way,” the one being passed is “stand-on.” The motorboat doing the passing can see the other motorboat the best. The one being passed might not even know that the other motorboat is near. Crossing: The “stand-on” motorboat is to the right of the other (and sees a green sidelight). The light which the “give-way” motorboat can see is red.

Waypoints

- The law designates motorboats as “stand-on” or “give-way” by their relative position. Each has a responsibility.

Tom and Annie were out for a cruise in their 18 ft. ski boat when a PWC passed them from the rear and cut in front of them. Tom knew that they were the “stand-on” vessel but in order to prevent an accident, he acted as if they were the “give-way” vessel. Was he right about being “stand-on?” Was he right to become the “give-way” vessel?

Answers on Page 14
Red (nun) and green (can) buoys are navigational aids on the water which mark sides of a channel (lane where water is deep for boats). The saying “red, right, returning” helps to remember that red buoys are to starboard when returning “from sea” (meaning from open water). Red/white vertically striped buoys mark safe water.

White buoys with orange markings give information or regulate where boats may go. Diamond means danger; diamond with cross means keep out; circles mark controlled areas and squares contain information.

Safe water (mid-channel) markers are vertically striped in red and white.

**Waypoints**
- Red and green buoys indicate sides of channels.
- Regulatory markers are white with orange markings and must be obeyed.
- Mid-channel markers are red and white vertically striped.
Learn to swim! It’s fun, healthy and safe! Always swim with a buddy and where there is adult supervision. Even if you swim well, do not swim to rescue a friend who appears to be in trouble. This has caused a lot of “extra” drownings. Only trained lifeguards know how to rescue a person successfully while swimming!

If someone near you needs to be rescued, hold on to something so you won’t be pulled in, then reach to the person with a shirt, rod, or other object. If you can’t reach, throw a line, life jacket or anything that floats. Tie a rope to it before you throw it! If you can’t throw something to the person, find some one to row out to make the rescue. Don’t go in the water to rescue anyone unless you are a trained lifeguard!

Waypoints

- Learn to swim.
- Swim with a buddy under adult supervision in designated areas.
- To rescue someone in trouble Reach, Throw, Row, Don’t go!

Michelle and her five-year old brother, Austin, were standing on the dock watching a distant boat when suddenly Michelle heard a splash! She looked around to see Austin splashing about in water over his head. On the dock with her were an oar, a ring buoy and the family canoe. How could Michelle best help Austin?

Answer on Page 14
When water is cold, falling overboard or having your boat capsize are life-threatening situations because of hypothermia (the situation where the body core temperature drops below normal). Wear your PFD for activities around cold water.

If your boat capsizes, try to get up on the boat, out of the water since water takes heat from you 25 times as fast as air does. If alone, place your arms across your chest and draw your knees up to your chest to conserve body heat. This is called the HELP (heat escape lessening position). If several people are in the water, huddle together to share body heat.

Waypoints

- To help avoid hypothermia in cold water, cross arms over chest and pull legs up to chest when alone or huddle when in a group.
Statistics show that a very few **bad habits** cause a lot of accidents. One exceptionally bad habit is **drinking alcoholic beverages while operating a boat**. It takes very little alcohol (blood alcohol level equal to or greater than 0.1%) to make a person **less watchful** and have **slower reflexes** when reacting to situations like crossing boat traffic. It also results in **poorer judgement**. Just as it is illegal to drive a car “while under the influence” of alcohol, it is also illegal to operate a boat “while under the influence” of alcohol.

Watching for people, boats and other obstacles in the water is very important! This is called **keeping a proper lookout**. Most boating collisions are caused by inattention.

**Waypoints**
- Operating a boat while drinking alcohol causes a lot of accidents because alcohol slows reflexes and makes for poor judgement.
- Operating a boat “while under the influence” of alcohol is illegal.
- Keep a proper lookout.

Dan was out boating with friends. The helmsman had had a few beers and didn’t notice a downed water-skier in the water. Dan saved the day when he yelled at the helmsman to turn the boat. What problem did the helmsman likely have? What was Dan doing so that he knew he should turn the boat? What should Dan do next?

Answers on Page 14
Across
1. Where an outboard engine is attached to a boat
4. The steering area of a boat where the helmsman (boat operator) sits
5. The type of light that faces forward and is found on a motorboat but not on a boat under sail
6. A deep lane of water between red and green buoys
10. A nighttime distress-signaling device
12. The sides and bottom of a boat, attached to its ribs
13. Government agency that must give approval on PFDs and fire extinguishers
16. The right side of the boat as seen when facing forward
18. Boat turned upside down
20. The forward part of a boat
21. Green buoy floating aid to navigation marking left side of channel when returning from sea (two words)
23. The left side of the boat as seen when facing forward
24. Means that a boat should continue with same speed and direction

Down
2. Always learn to do this if you will be playing near or in water or if you will be boating
3. “_____ watercraft” are small boats which cannot be steered when power is off
7. A device to make noise when on a boat
8. One is to “keep a proper ______” when operating a boat so as not to hit anything
9. ______ to rescue a person who is in distress in the water (so long as you can keep from being pulled in)
10. A distress ______ is orange with a black circle and square, used for daytime distress signal
11. Two boats in each other’s paths at right angles (as cars at an intersection)
12. The lowering of the core body temperature below normal
14. Means that a boat is required to stay clear of and go behind another boat
15. To place people and equipment in a boat so that it is balanced in every direction
17. The color of a sidelight found on the port side of a boat
18. “_____ plate” tells maximum load to be carried in a boat
19. Personal flotation device, life jacket
20. Type of fire extinguisher that puts out gasoline and oil fires (one letter answer)
22. Red buoy marking channel on right when returning from sea (two words)
**One Minute Mysteries**

Page 2  
1) Helmet  
2) Starboard  
3) Port  
4) Bow  
5) Hull  
6) Stern  
7) Transom

Kathy’s PFD didn’t fit as snugly as it should. When she hit the water hard, it moved from where it belonged on her body to a position up over her eyes. This is why your PFD should fit properly.

Brandy was right! Always wait to send up distress flares until you can see someone near by who will see them.

The white “masthead” light

It was good that Mattie and Carlos rode together because they could watch out for each other. First; it may be illegal to make their PWC become airborne while crossing the wake of a boat. Second; they should have kept a better lookout. Third; they probably let off the throttle which meant that they had no steering when they landed in the water. This is how many collisions occur!

---

**Boating Safety Puzzle Page 13**

Across:  Down:


The PARTNERS listed below offer a variety of boating courses for children and adults. Call Boat/U.S. at 1-800-336-BOAT (2628) to learn more about such courses.

The PARTNERS

BoatUS Foundation for Boating Safety

US Army Corps of Engineers

Produced Under a Grant From the Aquatic Resources (Wallop-Breaux) Trust Fund

Administered by the U.S. Coast Guard

For fun and additional information, visit these Internet web sites:

http://www.uscgboating.org
http://www.cgaux.org
http://www.boatus.com
http://www.usps.org
http://www.dbw.ca.gov
http://www.boatsafe.com/kids/index.htm

http://www.watersafety.usace.army.mil/safepassage

For fun and additional information, visit these Internet web sites: