

BOATING IN PENNSYLVANIA

PENNSYLVANIA FISH & BOAT COMMISSION (PFBC)

The mission of the Pennsylvania Fish & Boat Commission is to protect, conserve and enhance the Commonwealth's aquatic resources, and provide fishing and boating opportunities. The PFBC is responsible for promoting fishing and boating, and regulating and enforcing fishing and boating laws and regulations in Pennsylvania. Established in 1866, PFBC is primarily funded by Pennsylvania's boaters and anglers through boat registration fees and fishing license revenues.



PENNSYLVANIA'S BOATING OPPORTUNITIES

Pennsylvania provides nearly unlimited opportunities for the recreational boater. The Commonwealth has over 85,000 miles of rivers and streams ranging from headwaters to major river systems. It has 76 natural lakes that provide 5,266 acres of flat water. An additional 2,300 constructed impoundments provide another 200,000 acres of boatable waters. Lake Erie has 63 plus miles of shoreline and 735 square miles of waters within Pennsylvania's boundaries. The Delaware River provides 56 miles of tidal waters within Pennsylvania and access to the Atlantic Ocean.

The number of recreational boats on Pennsylvania waters continues to increase. In 1982, fewer than 200,000 boats were registered. In 2011, there were more than 332,000 registered boats. Over half of the registered boats in the Commonwealth are less than 16 feet in length. Pennsylvania is primarily a small-boat state. However, all kinds of boating are popular, from whitewater rafting on the Youghiogheny River to powerboating on the lower Delaware River.

PENNSYLVANIA WATER TRAILS

Pennsylvania Water Trails are boat routes suitable for canoes, kayaks and some motorized watercraft. Like conventional trails, water trails are recreational corridors between specific locations. Water trails are comprised of access points, boat launches, day use sites and, in some cases, overnight camping areas. From ripples to rapids, paddling these aquatic highways can be a great adventure. To view maps for the statewide network of water trails, visit www.fishandboat.com.



BOAT MOTORS AND HULL TYPES

MOTORS There are four primary types of boat motors:

- 1. Outboard motors** vary in size and clamp onto the transom. The whole motor pivots on its mounting to aim the wash and steer the boat. The boat turns in the opposite direction that the tiller arm is pushed. Electric motors are outboards.
- 2. Inboard/outboard (or sterndrive) motors** are bolted inboard, at the stern, with the drive unit through the transom.



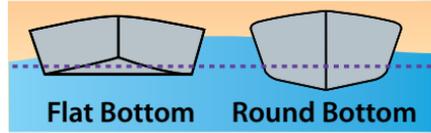
- 3. Inboard motors** are mounted lower in the boat and farther forward than an inboard/outboard. A rudder is used to steer.
- 4. Jet motors** use an engine to pump water through a nozzle at the stern, which pivots to steer the boat.

Many Pennsylvania lakes have specific motor-type and horsepower limitations.

BOAT HULL TYPES There are two basic types of boat hulls:

1. **Planing hulls** are flat-bottomed and skim across the water.
2. **Displacement hulls** have round bottoms and plow through the water. These boats are more stable but not as fast as planing hull boats.

Most boats are a compromise between planing and displacement hulls (deep-V, modified-V, cathedral, etc.). There are also multiple-hulled boats such as catamarans and pontoons.



BOATING TERMINOLOGY

Aft- near or at the stern of the boat.

Beam- the width of a boat, also the direction at right angles to the centerline of a vessel.

Bilge- the lowest point of a boat's interior hull.

Bow- the forward part (toward the front) of a boat.

Draft- the vertical distance from the waterline to the lowest point of the keel; it is the minimum depth of water in which a vessel will float.

Forward- aboard a boat, the direction to the front, to the bow.

Freeboard- the vertical distance from the waterline to the gunwale.

Gunwale- the upper edge of the side of a boat.

Hull- the structural body of the boat; does not include superstructure, masts or rigging.

Keel- the main structural member of a boat; its backbone; the lateral area beneath the hull that helps to provide stability and reduce the sideways drift of a boat.

Life Jacket- also known as a personal flotation device, vest or preserver.

Port- looking toward the bow, the left side of the boat.

Starboard- looking toward the bow, the right side of the boat.

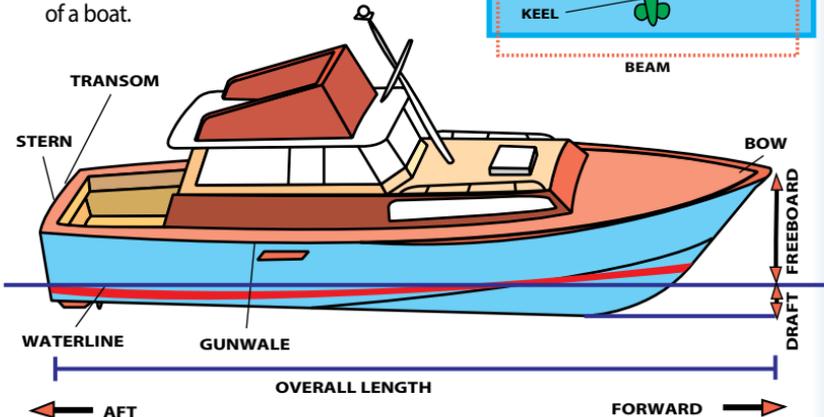
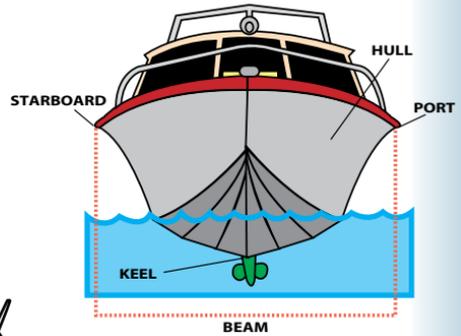
Stern- the aft (back or rear) portion of the boat.

Transom- the transverse part of the stern (where an outboard motor is attached).

Waterline- the intersection of a boat's hull and the water's surface.

USCG- United States Coast Guard

USPS- United States Power Squadrons



LEGAL REQUIREMENTS

BOAT OPERATOR RESPONSIBILITIES

Boat operators are responsible for:

- Knowing the rules and regulations in the areas where they boat.
- Knowing the waters where they are boating.
- Having the required safety equipment for their watercraft.
- The actions of all persons on board their boats.



RULE OF RESPONSIBILITY DEFINED

NAVIGATION RULES United States Coast Guard (USCG), RULE 2, "RESPONSIBILITY"

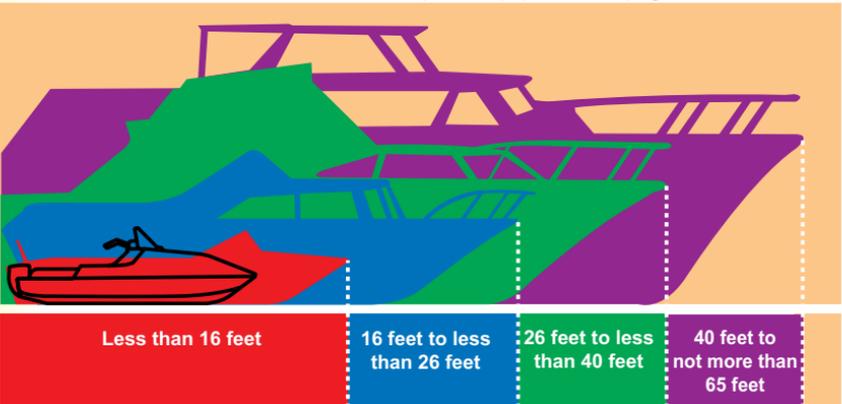
"2(a) Nothing in these Rules shall exonerate any vessel, or the owner, master, or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case."

"2(b) In construing and complying with these Rules due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved, which may make a departure from these Rules necessary to avoid immediate danger."

BOAT CLASSIFICATION

Boats are classified according to length, which is the horizontal distance from bow (front) to stern (back) along the centerline. It excludes any projections that are not part of the boat's hull, such as an outboard motor or swim platform.

Classification determines the minimum required equipment. *See page 18.*



Less than 16 feet (Class A)
Includes jonboats, small runabouts and personal watercraft.

16 feet to less than 26 feet (Class 1)
Boats used for skiing, fishing and day trips.

26 feet to less than 40 feet (Class 2)
Large boats that usually include enclosed cabins.

40 feet to not more than 65 feet (Class 3)
Large, expensive boats with advanced features.

BOAT OPERATION REQUIREMENTS

In Pennsylvania, it is illegal to...

- Operate a watercraft in a reckless, negligent or dangerous manner. Boats must be operated at a rate of speed that does not endanger the life or property of any person.
- Operate a boat at greater than slow, no-wake speed within 100 feet of the shoreline, docks, launch ramps, swimmers or downed skiers, persons wading in the water, anchored, moored or drifting boats and floats. Slow, no-wake speed is the slowest possible speed of a motorboat required to maintain maneuverability, so that the wake or wash created by the motorboat on the surface is minimal. The slow, no-wake zone for wake surfing activity is 200 feet. See page 35.
- Operate a motorboat less than 20 feet in length at greater than slow no-wake while a person is standing on or in the boat.
- Operate a motorboat at greater than slow, no-wake speed with a person riding outside of the passenger carrying area or while a person is riding on the bow decking, gunwales, transom or motor covers.
- Operate a pontoon boat at any speed while a person is riding outside the passenger-carrying area.
- Cause a boat to become airborne or to leave the water completely while crossing another boat's wake when within 100 feet of the boat creating the wake.
- Weave through congested traffic.
- Operate faster than slow, no-wake when within 100 feet to the rear or 50 feet to the side of another boat that is underway, unless in a narrow channel.
- Operate within 100 feet of anyone towed behind another boat.
- Operate a motorboat with anyone sitting, riding or hanging on a swim platform or swim ladder attached to the boat.



Many waterways in Pennsylvania have special regulations such as electric only or horsepower restrictions.

HOMELAND SECURITY

Strict regulations have been issued relating to waterways for national security. Boaters must follow these regulations or be exposed to serious penalties. Our mutual security, in part, depends on your diligence in reporting suspicious activities that you may encounter on the water.



Requirements for all watercraft:

- Stay at least 100 yards from all military, cruise line or commercial shipping vessels. Violating the Naval Vessel Protection Zone is a felony offense, punishable by up to six years imprisonment and/or up to \$250,000 in fines.
- You must operate at slow, no-wake speed within 500 yards of U.S. Naval vessels.
- Check with local authorities and refer to current charts to identify and stay away from security zones and port operation areas.
- Generally, stay at least 100 yards from military areas, cruise lines and petroleum facilities. Also, stay away from dams and power plants.

At the request of the Captain of the Port, or District Commander, an area may also be designated a Security Zone. This zone may be highlighted in magenta (pink-red coloration) on

charts to better stand out and warn the public to stay clear. Unauthorized vessels, without specific permission to enter, must stay out of these marked areas. Armed military, harbor police or civilian authorities, securing these areas, will confront violators.

Guidelines:

- Do not stop or anchor beneath bridges or in a channel. If you do stop, be prepared to be boarded by patrolling authorities.
- Be observant and report any suspicious activity to U.S. Coast Guard or local authorities.
- Always secure and lock your boat when not on board.

MINIMUM AGE OF OPERATION

The following age restrictions and boating education requirements apply to the operation of motorboats.

HP OF MOTOR	RESTRICTIONS OF USE
 PWC	All PWC (personal watercraft) operators, regardless of age, must have a Boating Safety Education Certificate. Persons 11 years of age or younger may NOT operate. Persons 12 through 15 years of age may NOT operate with any passengers on board 15 years of age or younger or rent a PWC.
0-25hp	None 
 Greater than 25hp	Persons 11 years of age or younger may NOT operate. Persons born on or after January 1, 1982, may not operate unless they have obtained and have in possession a Boating Safety Education Certificate.

MANDATORY BOATING EDUCATION

Boating safety education is important, even for experienced boaters. Knowledgeable boaters are safer boaters. Boating courses are fun for the entire family and are offered at many locations throughout the state and in your own home. Safe boating education provides the groundwork for safe recreational boating and should be considered only as an introduction to safe boating practices. Boating regulations and conditions can be expected to change, therefore, PFBC encourages boaters to take additional boating safety courses through organizations such as the U.S. Coast Guard Auxiliary, U.S. Power Squadrons, American Sailing Association, U.S. Sailing Association, American Red Cross and American Canoe Association.

BOATING COURSES AND SAFETY CERTIFICATES

Boaters who successfully complete a PFBC-approved boating course are issued a Pennsylvania Boating Safety Education Certificate, valid for a lifetime of boating safety.

Boating Safety Education Certificates are required:

- To operate a personal watercraft
- For persons born on or after January 1, 1982, to operate boats powered by motors greater than 25 horsepower.

Approved permanent Boating Safety Education Certificates for Pennsylvania residents must be issued by PFBC. Out of state boaters must have a certificate issued for a course approved by the National Association of State Boating Law Administrators (NASBLA).

Certificate Cards

The PFBC-issued Boating Safety Education Certificate is a durable, waterproof plastic card. The card has a hole in it to make it handy to attach to your life jacket, boat keys or the lanyard on your PWC.

- If you already have your Pennsylvania Boating Safety Education Certificate from PFBC and you are applying for a duplicate or replacement card, you can get a new one for \$5 each. To obtain one (or more), download an application from our website. Fill out the application, and send it to PFBC with your fee.
- If you do NOT have a Pennsylvania Boating Safety Education Certificate, but you have earned a certificate from the U.S. Coast Guard Auxiliary, U.S. Power Squadrons or another approved course, you must mail to PFBC the original certificate issued to you for successfully completing that course. If you want your original certificate returned, please include a self-addressed, stamped envelope. The cost for your new, permanent Pennsylvania Boating Safety Education Certificate is \$10.



Classroom Courses and Distance Learning

Approved classroom boating courses are available from PFBC, U.S. Coast Guard Auxiliary, U.S. Power Squadron and several other approved course providers. In addition, PFBC has several approved Internet and distance-learning courses. Information on these providers and their courses is available on PFBC's website. In some cases, there are fees for these courses in addition to the permanent Boating Safety Education Certificate fee of \$10.

PERSONAL FLOTATION DEVICES

Personal flotation devices (PFDs, life jackets, life preservers, life vests and throwable devices) are the most important piece of equipment on a boat; PFDs are the best defense against drowning. **Each person in the boat must have a wearable, USCG-approved life jacket!** It is highly advisable to wear life jackets at all times, especially in dangerous conditions.

Since boating conditions can change quickly and without warning (increasing your chance of unexpectedly falling into the water), boating without wearing a properly fitted life jacket is dangerous. Trying to put on a life jacket while in the water is difficult and nearly impossible in moving water.

LIFE JACKET AND THROWABLE DEVICE REQUIREMENTS:

- All boats must have a USCG-approved wearable life jacket on board for each person.
- Life jackets must be the appropriate size for the person intended. Check the life jacket label to ensure it's the appropriate size for the person wearing it. Also, make sure the jacket fits. See page 10 to learn how to check for proper fit.
- Life jackets must be appropriate for the activity for which they are worn. See the USCG approval label for information.
- Wearable life jackets must be "readily accessible." This means life jackets should be stowed where they can be easily reached or in the open, ready for wear. Throwable devices must be "immediately available," which means that the PFD shall be within arm's reach of the operator or passenger while the boat is operated. A PFD that is sealed in its original packaging is not readily accessible or immediately available.
- All life jackets must be in good and serviceable condition and legibly marked showing the USCG approval number. This means the life jacket must be functional, free of tears or defects in the material, and all buckles, straps, zippers and other closures must be operable.
- In addition to wearable life jackets, boats 16 feet and over must have a throwable device (ring buoy, life ring or buoyant seat cushion) on board. Canoes and kayaks, regardless of length, are not required to carry a throwable device.
- A throwable device may not be used as a substitute for a wearable device.



WEARABLE LIFE JACKETS

- Life jackets should be inspected regularly for tears and damage. If damage is present, do not repair the life jacket. Throw it away. Repairs to a life jacket may be the weak spot that causes a drowning.
- Inflatable life jackets must be checked frequently and maintained according to the manufacturer's recommendations to ensure correct operation.
- Life jackets must be used in accordance with any requirements on the approval label.
- Life jackets with old type identification (e.g. Type I, Type II, Type III and Type V) are still usable as long as life jackets are in good and serviceable condition.

Selection and Warning Panel:

ADULT UNIVERSAL
User Weight: >141 kg (>90 lbs) Turning Ability Icons
Chest Size: 76-132 cm (30-52 in.)

70
Level of Performance

Approved only when worn.
Drowning hazard if not worn.
Must be fastened and properly adjusted to float the wearer.
Choose and wear the device which fits you and your activity, visit www.XXXXX.com*
Read and keep the owner's manual and tags for info on rearming, wear, and care.

Certification and Approval Panel:

Wagner's Wonderful World of Watersports
Somewhere Wat, FL 12465
www.lifejacket.com
Made in Platinum Boreum
USCG Approved 160.0000000000
TC Approved 3000000000-XX
CANANSUAL 12402-S
Model: Bobber Style: A
Lot No.
Approved only when worn.

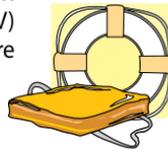
Care and Maintenance Panel:

Use:
Fasten all closures and adjust for a snug fit.

Inspection:
Inspect your life vest before each outing. Do not use if your life vest shows signs of weathering, damage, or rot.

Care and Storage:
Dry thoroughly after each outing.
Store in a dry, cool place out of direct sunlight.

THROWABLE DEVICES



Throwable device—**minimum 16.5 pounds of buoyancy, designed to be grasped, not worn.**

WHO MUST WEAR A LIFE JACKET?

Children 12 years of age and younger on Commonwealth waters when underway on any boat 20 feet or less in length and in all canoes and kayaks.

On Pittsburgh District U.S. Army Corps of Engineers lakes (only), everyone in boats less than 16 feet in length and in all canoes and kayaks.

All water skiers and anyone towed behind vessels, personal watercraft (PWC) operators and passengers and sailboarders (windsurfers). Inflatable life jackets are not acceptable for these activities.

MAKE SURE THE LIFE JACKET FITS—THE “TOUCHDOWN” TEST

For a life jacket to work properly, not only does it need to be on your body, it should fit properly as well. A properly fitting life jacket is more comfortable (meaning you are more likely to wear it), but more important, it functions better. Life jackets that are too large can ride up or even come off when you are in the water.

It's easy to check a conventional life jacket for proper fit—just put it on. The jacket should fit you snugly with all zippers, straps, ties and snaps correctly secured. With a partner behind you, raise your arms like you are signaling a touchdown in a football game. Have the partner lift the jacket by the shoulders. The jacket should come no higher than your chin. If the jacket covers your face or comes off—that's what would happen in the water. In this case, tighten the straps or use a smaller size.

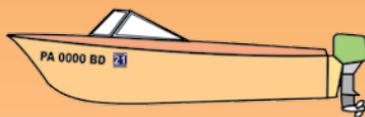
LIFE JACKET WEAR REQUIRED BY LAW: NOV.1 TO APRIL 30

Boaters must wear a life jacket on boats less than 16 feet in length or any canoe or kayak. Recreational boating fatalities that occur in Pennsylvania from November through April are primarily due to the effects of cold water immersion. When water temperatures are less than 70 degrees F, cold water shock is a major factor in boating fatalities. Victims who wear a life jacket when exposed to cold water have potentially life-saving advantages such as insulation from the cold, buoyancy for victims who are unable to tread water and reduced risk of aspiration of water. In an effort to reduce the number of fatalities related to cold water immersion, the Commission has amended regulations to require life jackets to be worn on small and unstable boats during the period most noted for cold water temperatures.

BOAT NUMBERING AND REGISTRATION

Boats propelled by machinery and electric motors must be numbered, regardless of length and type of motor. Boats excluded from numbering include unpowered kayaks, sculls and sailboards, documented vessels and vessels with a valid temporary certificate. Documented vessels must be registered. In Pennsylvania, large pleasure boats, usually called yachts, which are documented with the U.S. Coast Guard. These documented vessels must be registered but need only display a valid registration decal.

**PLACEMENT ON BOAT:
PAINTED OR ATTACHED TO
EACH FORWARD HALF OF VESSEL**



PA 0000 BD 21

**SPACING—HYPHEN OR EQUIVALENT SPACE
BETWEEN 3 PARTS OF YOUR NUMBER**

**WITHIN 6
INCHES**

DISPLAY REQUIREMENTS

The letters and numbers must:

- Read from left to right.
- Be painted or permanently attached to each side on the forward half of the vessel where no other number may be displayed.
- Be of bold, block letters in good proportion.
- Be of a contrasting color to the background.
- Be at least 3 inches high.
- Be nearly as vertical as possible and easily observed.
- Be separated by a hyphen or space equal to the width of any letter or number except "l" or "1."
- Have a current registration decal within 6 inches on the same level (before or following number).

BOAT REGISTRATION

All motorboats and boats powered by electric motors must be registered. Owners of unpowered boats (canoes, kayaks, stand-up paddleboards, rowboats, etc.) can launch their boats at Commission lakes and access areas or Pennsylvania state parks if their boats display a boat registration, Commission launch use permit, or Pennsylvania State Parks launch permit or mooring permit. Pennsylvania State Parks recognizes boat registrations and Commission launch permits. The Commission does NOT recognize launch permits from other states. A Commission launch permit can be purchased on PFBC's website.

Registrations are renewed on a two-year cycle and expire on March 31 of the second year. Registrations are valid when issued by the Commission and online messengers. Application forms are available at county treasurer's offices, certain boat dealerships, on the PFBC website, at the PFBC's headquarters in Harrisburg and at PFBC regional law enforcement offices.

Boat registration fees are as follows:

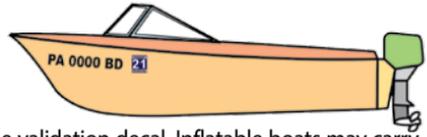
\$22	Unpowered boats
\$26	Boats less than 16 feet
\$39	Boats 16 feet to less than 20 feet
\$52	Boats over 20 feet



Note: Boats with unpowered boat registrations may NOT be equipped with gasoline or electric motors or any other mechanical propulsion and be operated on Pennsylvania waterways.

Upon the completion of the application and the payment of the fee, a registration card and two validation decals will be issued. The certificate of boat registration is your registration card and must be on board the boat during operation. The certificate also shows the boat registration number that must be displayed on the boat. The Pennsylvania registration number, issued with the original certificate of boat registration, stays with the boat as long as it is registered in Pennsylvania. It is the boat owner's responsibility to purchase the numbers and letters to display the registration number on the boat.

Display the number and validation decal on the bow of the boat as shown on *page 11*. No other number may be displayed on either side of the bow. These numbers may not be removed, altered, tampered with or defaced, except by the owner or representative. Documented vessels, as well as kayaks, sculls, sailboards and other low-volume boats of similar design, are exempt from the display of numbers, but they must display the validation decal. Inflatable boats may carry their numbers and validation decal on boards lashed to each side of the bow. Canoes are not exempt and must display the numbers and the decal.



STATE OF PRINCIPAL OPERATION

Vessels must be registered in the state in which the boat is primarily operated. If the boat is waterborne (including time at a marina slip or mooring) on Pennsylvania waters more than on waters of another state, it must be registered in Pennsylvania, regardless of where the owner lives. Reciprocal privileges are granted to boats with valid registration in other states for up to 60 days.

Note: A Pennsylvania Use Tax is charged for any boat owned by a Pennsylvania resident if that boat is at any time brought into the Commonwealth, regardless of where it is registered. There is an exception for casual sales of unpowered boats. Credit is given for tax paid to other states.

BOAT REGISTRATION FORMS

A Renewal of Registration form is mailed to boat owners prior to the expiration date. If one has not received the form, boat owners should write to the Division of Licensing and Registration or go to the Commission's website to renew online.

A Duplicate/Replacement Certificate of Registration can be obtained for \$3 through the Division of Licensing and Registration. Go to the Commission's website to download the form (PFBC-732).

A Change of Address form (PFBC-732) must be filed within 15 days at the Division of Licensing and Registration. This office must also be notified within 15 days if a boat is lost, stolen, destroyed, abandoned or sold.

To transfer boat ownership, form REV-336 must be completed and signed by the applicant and registered owner(s). If the registered owner(s) is/are not available, a notarized bill of sale, signed by the registered owner(s), may be substituted. Sales tax payment must still be collected if applicable. It is unlawful for a person purchasing or acquiring a previously registered boat to operate that boat in Pennsylvania until the registration is transferred to the new owner.

A 60-day Temporary Registration is issued by authorized agents, so the boat can be used immediately.

Note: All powered and titled boats used for pleasure are taxable. Proof of payment of sales tax is required at the time of registration.



LAUNCH PERMITS

Owners of unpowered boats (canoes, kayaks, stand-up paddleboards, rowboats, etc.) can launch their boats at PFBC lakes and access areas or Pennsylvania state parks if their boats display a PFBC launch use permit, boat registration, or Pennsylvania State Parks launch permit or mooring permit. Pennsylvania State Parks recognizes boat registrations and Commission launch permits. The Commission does NOT recognize launch permits from other states. A PFBC launch permit can be purchased on the Commission's website. An unpowered boat may have a registration OR launch permit but is not required to have both.

BOAT TITLING

A certificate of title is a legal document that proves ownership. Boat titling is different from boat registration, because a certificate of registration does not prove ownership. A certificate of title requires all owners of a boat to sign off on their interests when selling and provides the purchaser with proper documentation for titling and registering a boat. Application forms are the same ones used for boat registration and are available at county treasurer's offices, certain boat dealerships, on the PFBC website, at PFBC's headquarters in Harrisburg and at PFBC regional law enforcement offices.

Boat titling is required for all inboard motorboats (regardless of length) and personal watercraft with a model year of 1997 or newer AND all outboard motorboats 14 feet or more in length with a model year of 1997 or newer. At the request of the owner, the Commission will issue a title to any boat, regardless of the length, power source or year the boat was manufactured. However, once a title is issued, that boat must remain titled by future owners. Also, anyone with a boat currently titled in another state must obtain a Pennsylvania title when Pennsylvania becomes the state of principle use, regardless of the age, size or length of the boat.

The fee for titling a boat is \$15. There is an additional encumbrance fee of \$5 if there is a lien against the boat. The fee for a duplicate title is \$5.

Boat titling assures the buyer of a boat that the seller has clear ownership of a boat offered for sale. Some lenders won't finance a boat without a title, so securing a loan to purchase a boat may be easier if the boat is titled. Boaters who register and title their boats have more security. In the event of boat theft, such boats are easier to identify (*see page 31*).

CAPACITY PLATES

The capacity plate provides important information about the boat including maximum weight capacity, maximum horsepower, maximum person capacity by number and maximum persons capacity by weight. Individuals being towed behind a boat (e.g. waterskiers, tubers, kneeboarders, wake surfers, parasailers, etc.) are considered to be passengers of the vessel and must be counted in regard to the boat's maximum passenger capacity.

No boat shall be loaded beyond its safe carrying capacity. Observe and understand your capacity plate.



HULL IDENTIFICATION NUMBER (HIN)

This number is federally required and is located on or near the boat transom's upper starboard (right) side. Also, the HIN is hidden by the manufacturer on the vessel for recovery purposes. HINs are 12 characters in length and may be 17 characters on newer boats.

ACBF0930A686

ACB	F0930	A6	86
<i>Manufacturer's ID Code</i>	<i>Production or Serial #</i>	<i>Month of Production</i>	<i>Model Year</i>

Key to Month of Production

A=January
B=February
C=March
D=April
E=May
F=June
G=July
H=August
I=September
J=October
K=November
L=December

NIGHT OPERATION AND LIGHTS

All vessels must show required running lights between the hours of sunset and sunrise and during periods of restricted visibility, such as fog and heavy rain. During such times no other lights may be displayed, except those that cannot be mistaken for the required lights or do not impair their visibility or distinctive character, or interfere with keeping a proper lookout. A sailboat operating under power and sail must display the proper running lights for a powerboat. Navigation lights are restricted to the colors red, green and white. Navigation lights are designed to identify the type of boat and its situation (underway, direction of travel, at anchor, etc.) on the water. Boats underway include drifting boats. Night boaters should carry spare bulbs, fuses, batteries and a flashlight.

The navigation lights required for boats are determined by the boat's length and whether it is powered by machinery, sail, paddles or oars.

DOCKING LIGHTS: It is illegal to use docking lights while underway, except when docking and the boat is traveling at slow, no-wake speed and is within 100 feet of approaching a dock, a mooring buoy or the shoreline. A docking light is a flood or spotlight type of light permanently installed or permanently mounted on a motorboat that is used to illuminate a boat's forward course of travel.

Figure 1: Powerboat with red and green side lights. Labels: A or B.

Figure 2: Sailboat with red and green side lights. Labels: A or B.

Figure 3: Powerboat with red and green side lights. Labels: A or B.

Figure 4: Sailboat with red and green side lights. Labels: A or B.

Figure 5: Sailboat with a combined tricolor light. Label: Combined Tricolor Light.

Figure 6: Sailboat with vertical red and green lights. Label: Vertical Red and Green Lights.

Figure 7: Three scenarios for anchor lights: A (hand-held), B (hand-held), and C (installed).

Location of Lights on Vessel	Visible Range less than 12 meters	12 meters to less than 20 meters	Degrees of Arc of Light
Masthead	2	3	225°
All-round	2	2	360°
Side Lights	1	2	112.5°
Stern Light	2	2	135°

Anchor Lights: All boats must display an all-round anchor light between sunset and sunrise and during periods of restricted visibility when anchored in or near a channel and when in an anchorage not designated as a special anchorage area. In addition, Pennsylvania regulations require all boats to display an all-round anchor light when boats are anchored where other vessels normally navigate. This includes all boat-able Commonwealth waters. The all-round light must be one meter higher than the colored lights and be displayed where it can best be seen.

The charts on this page show which lights are required.

Conversions: 7 meters = 23'; 12 meters = 39'4"; 20 meters = 65'6" <= less than

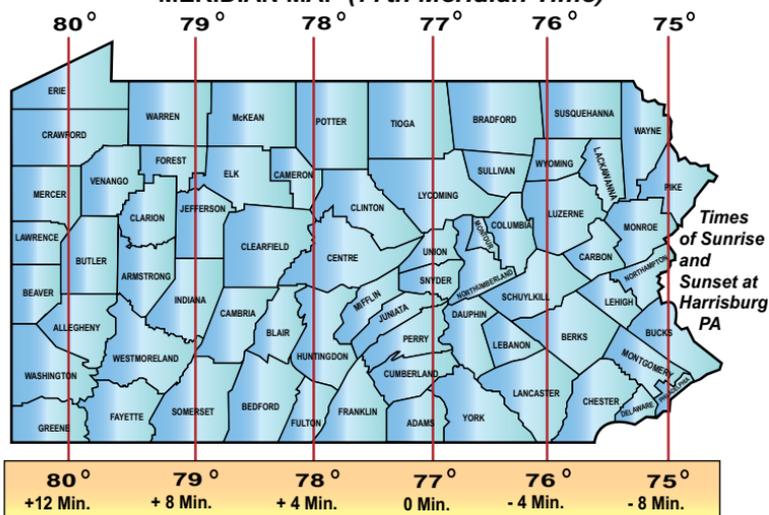
Type of Boat	Length	Figure
Powerboat	< 12 meters	1, 2 or 3
Powerboat	12 - 20 meters	1 or 2
Sailboat (sail only)	< 20 meters	4, 5 or 6
Sailboat (sail only)	Any	4, 5 or 6
Sailboat (sail only)	< 7 meters	7B This is a white light either hand-held or installed ready to be displayed in time to avoid a collision.
Manually powered	Any	7A This is a white light either hand-held or installed ready to be displayed in time to avoid a collision.
Anchored	Any	7C This is an all-round white light visible for at least 2 miles and displayed where it can best be seen. An anchor light is not required but highly recommended, when anchored in a special anchorage area.

77TH MERIDIAN TIME: SUNRISE AND SUNSET AT HARRISBURG

EASTERN STANDARD TIME and EASTERN DAYLIGHT TIME (EDT) when in effect.

Dates	Rise	Set	Dates	Rise	Set	Dates	Rise	Set
Jan 1-5	7:30	4:54	May 4-10	5:59	8:09	Sep 7-13	6:44	7:24
Jan 6-12	7:30	4:59	May 11-17	5:52	8:16	Sep 14-20	6:51	7:12
Jan 13-19	7:28	5:06	May 18-24	5:46	8:23	Sep 21-27	6:57	7:01
Jan 20-26	7:24	5:15	May 25-31	5:42	8:28	Sep 28-Oct 4	7:05	6:47
Jan 27-Feb 2	7:18	5:24	Jun 1-7	5:39	8:33	Oct 5-11	7:11	6:38
Feb 3-9	7:12	5:32	Jun 8-14	5:37	8:37	Oct 12-18	7:19	6:27
Feb 10-16	7:04	5:40	Jun 15-21	5:38	8:40	Oct 19-25	7:26	6:17
Feb 17-23	6:55	5:47	Jun 22-28	5:39	8:41	Oct 26-Nov 1	7:34	6:08
Feb 24-Mar 1	6:45	5:56	Jun 29-Jul 5	5:42	8:41	Nov 2-8	6:42	5:00
Mar 2-8	6:34	6:04	Jul 6-12	5:47	8:39	Nov 9-15	6:50	4:53
Mar 9-15	7:23	7:12	Jul 13-19	5:52	8:35	Nov 16-22	6:58	4:48
Mar 16-22	7:12	7:19	Jul 20-26	5:58	8:30	Nov 23-29	7:06	4:44
Mar 23-29	7:00	7:26	Jul 27-Aug 2	6:03	8:24	Nov 30-Dec 6	7:13	4:41
Mar 30-Apr 5	6:47	7:35	Aug 3-9	6:10	8:16	Dec 7-13	7:20	4:41
Apr 6-12	6:38	7:41	Aug 10-16	6:17	8:07	Dec 14-20	7:25	4:43
Apr 13-19	6:27	7:48	Aug 17-23	6:24	7:57	Dec 21-27	7:28	4:47
Apr 20-26	6:17	7:55	Aug 24-30	6:31	7:46	Dec 28-31	7:30	4:51
Apr 27-May 3	6:08	8:02	Aug 31-Sept 6	6:38	7:34			

MERIDIAN MAP (77th Meridian Time)

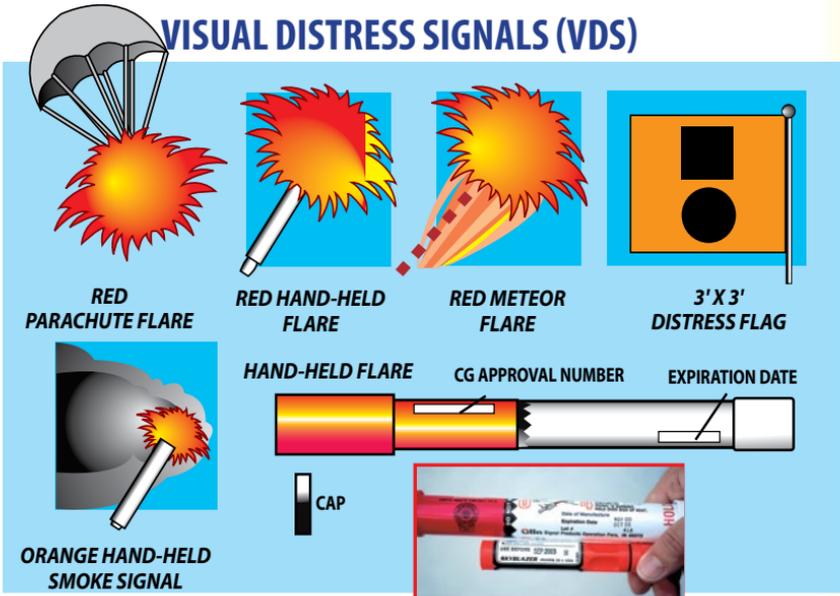


SOUND-PRODUCING DEVICES

Motorboats less than 65 feet in length must carry some mechanical means of making a sound signal. This device may be hand-, mouth- or power-operated. An athletic coach's whistle is an acceptable device for small motorboats. Operators of unpowered boats (canoes, kayaks, rowboats, paddleboards) are required to carry a device capable of sounding a prolonged blast for 4-6 seconds that can be heard by another boat operator in time to avoid a collision. An athletic coach's whistle is acceptable.



VISUAL DISTRESS SIGNALS (VDS)



According to U.S. Coast Guard navigation rules/emergency preparedness, boat operators are required to render assistance to a boat in distress to the extent they are able. When operating on federally controlled waters, boaters must carry VDS devices. This includes vessels navigating on federal waters such as coastal waters, the Great Lakes (including Lake Erie), territorial seas and bodies of water connected directly to any of these up to the point where the body of water is less than two miles wide.

In Pennsylvania, VDS devices are required only for boats operating on Lake Erie. Between the hours of sunset and sunrise, boats less than 16 feet in length must carry VDS suitable for use at night. Boats 16 feet and over in length must, at all times, carry devices suitable for day use and devices suitable for night use or devices suitable for use both day and night.

Approved day-use-only devices include orange smoke (hand-held or floating) and orange signal flags. Flares are approved for both day and night use. If flares are selected, a minimum of three must be carried. Three day/night signaling devices meet both requirements.

All VDS must be USCG approved, have legible approval numbers, be in serviceable condition and be readily accessible. VDS are not acceptable if the expiration date has passed. Though only required on Lake Erie, VDS are practical safety items for all boaters to carry.

Flares are of short duration. Use them only when another vessel is in sight. When igniting a flare, hold it over the water on the downwind (leeward) side. Flares are not toys. Use them only in an emergency.

MINIMUM REQUIRED EQUIPMENT

Smart boaters ensure that their boats are equipped with the proper safety equipment. The chart below lists the minimum required equipment for motorboats.

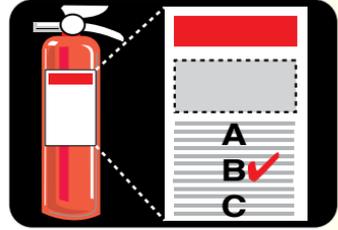
EQUIPMENT	Less than 16 feet	16 to less than 26 feet	26 to less than 40 feet	40 to not more than 65 feet
BACKFIRE FLAME CONTROL (page 19)	One approved device on each carburetor of all inboard gasoline engines.			
SOUND PRODUCING DEVICE (page 17) 	Some means of making an efficient sound signal audible for 1/2-mile. A whistle or horn must be readily accessible to the operator of boat or passengers. An athletic coach's whistle is acceptable.			Must carry a sound signal audible for 1/2-mile.
PORTABLE FIRE EXTINGUISHER WHEN REQUIRED (page 19) 	At least one B-I type Coast Guard approved portable marine fire extinguisher. Must be installed and immediately available, within arm's reach of the operators or passengers.	At least two B-I type Coast Guard approved portable marine fire extinguishers or one B-II.	At least three B-I type Coast Guard approved portable marine fire extinguishers or one B-I and one B-II.	
NAVIGATION LIGHTS (page 15)	Must comply with Inland Navigation Rules and state regulations.			
MUFFLING DEVICE (page 19)	Efficient muffling device required to prevent excessive or unusual noise.			
PERSONAL FLOTATION DEVICES (PFDs, LIFE JACKETS, THROWABLE DEVICES) (page 9) 	One USCG-approved life jacket for each person on board. Must be used in accordance with the requirement on the approval label.	One USCG-approved life jacket on board for each person and, in addition, one throwable device must be used in accordance with the requirements on the approval label. Canoe and kayaks, regardless of length, are not required to carry a throwable device.		
VENTILATION (page 36)	Boats with closed compartments or permanently installed fuel tanks must be equipped with an efficient natural or mechanical bilge ventilator or meet the applicable Coast Guard construction standards for fuel and electrical systems.			

RECOMMENDED EQUIPMENT (NOT REQUIRED BY LAW)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Paddles or oars | <input checked="" type="checkbox"/> Bailer |
| <input checked="" type="checkbox"/> Anchors with sufficient line | <input checked="" type="checkbox"/> Fenders |
| <input checked="" type="checkbox"/> Dock lines | <input checked="" type="checkbox"/> First aid kit |
| <input checked="" type="checkbox"/> Extra clothing | <input checked="" type="checkbox"/> Charts and compass |
| <input checked="" type="checkbox"/> Food and water | <input checked="" type="checkbox"/> Sunscreen and sunglasses |
| <input checked="" type="checkbox"/> Marine radio or cellular phone | <input checked="" type="checkbox"/> Spare fuses and bulbs |
| <input checked="" type="checkbox"/> Tool kit with spare spark plugs | <input checked="" type="checkbox"/> Gas can |
| <input checked="" type="checkbox"/> Flashlight | <input checked="" type="checkbox"/> Extra line or throw bag |
| <input checked="" type="checkbox"/> Lanyard attached to motor cut-off switch | <input checked="" type="checkbox"/> Visual distress signals (required on Lake Erie) |

FIRE EXTINGUISHERS

Fire extinguishers are classified by letters and numbers. The letter indicates the type of fire the unit is designed to extinguish. For example, a type B extinguisher is meant to put out flammable liquids, and type C is for electrical fires. The number stands for the amount of extinguishing agent in the unit. For example, a B-1 extinguisher has less agent than a B-11.



Motorboats 26 feet or more in length are required to carry Coast Guard-approved hand portable fire extinguishers. Motorboats less than 26 feet in length, powered by an outboard motor and not carrying passengers for hire are not required to carry fire extinguishers unless boats have one or more of the following conditions:

- Closed compartments under seats where portable fuel tanks may be stored.
- Double bottoms not sealed to the hull or not completely filled with flotation material. Note: Open boats such as jonboats where an after-market solid wood or metal floor is installed and is not completely sealed to the hull are not required to carry a fire extinguisher.
- Closed living spaces.
- Closed storage compartments in which flammable materials are stowed.
- Permanently installed fuel tanks.

TYPES OF FIRES

Class A	combustible solids, wood, paper, cloth
Class B	flammable liquids and gases
Class C	energized electrical equipment
Class D	combustible metals

CARBURETOR BACKFIRE FLAME CONTROL

Gasoline engines, except outboards, must have an approved (USCG, SAE or UL) backfire flame control on the carburetor to prevent ignition of gasoline vapors in case the engine backfires. It should be maintained regularly and can be cleaned with hot, soapy water or a commercial cleaner.



NOISE RESTRICTIONS AND MUFFLING DEVICES

Boat motors must be equipped with an efficient muffling system or device in good working order. Most boats and motors that come directly from the manufacturer are adequately muffled. It is illegal for a boat to be so loud that it is an extraordinary annoyance or distraction to persons in the vicinity of that boat. Boat exhaust systems may not be modified in any manner that will reduce or eliminate the effectiveness of the muffler or muffler system. Cutouts (muffler

bypasses) are illegal in Pennsylvania. Boats without a muffler or muffling system must be backfitted before being operated.

