PENNSYLVANIA BOATING HANDBOOK

COLD WEATHER LIFE JACKET WEAR

SEE PAGE 11

PENNSYLVANIA FISH & BOAT COMMISSION

www.fishandboat.com

APPLICATION FOR A PERMANENT BOATING SAFETY EDUCATION CERTIFICATE

To obtain a Boating Safety Certificate, complete and mail the form below or complete and mail the online form at* www.fishandboat.com. *✓ Please check the appropriate box.

❑**TEMPORARY to PERMANENT:** If you were issued a temporary certificate and wish to obtain a permanent certificate, **submit this form, a copy of your temporary certificate and payment of $10.00.**

❑**DUPLICATE or REPLACEMENT:** If you already have a Permanent PA Boating Safety Education Certificate and are applying for a duplicate certificate, **submit this form and payment of $5.00.**

❑**OTHER CERTIFICATIONS:** If you have a certificate from the **U.S. Coast Guard Auxiliary**, the **U.S. Power Squadron** or have taken a **NASBLA (National Association of State Boating Law Administrators) Approved Course but do not have a PA Boating Safety Education Certificate, submit this form, the certificate and payment of $10.00.** Include a self-addressed, stamped envelope if you want your original certificate returned.

CURRENT INFORMATION *Please PRINT*

PA Certificate No. (If Known) # _____

NAME (Last) (First) (Middle Initial)

_____

MAILING ADDRESS (Street or P.O. Box No.)

_____

CITY/STATE/ZIP

_____

BIRTH DATE (Mo.) / (Day) / (Yr.) PHONE (Daytime)

_____

PLACE A "✓" IN THE BLOCK BEHIND THE APPROPRIATE SELECTIONS.

Hair Color ✓

Brown		**Black**	
Blond		**Red**	
Gray		**Other**	

Eye Color ✓

Brown		**Gray**	
Green		**Other**	
Blue			

Gender ✓

Male	
Female	

Number of Certificates Ordered: _____ **Amount Enclosed: $**_____

Check or Money Order #_____ **Make Check Payable to: PA Fish & Boat Commission**

Type of Credit Card _____ **Credit Card #** _____

Exp. Date (ex. 05/2019) _____ *Please allow 4 to 6 weeks to receive your permanent certificate.*

Send to: PA Fish & Boat Commission • Bureau of Outreach, Education & Marketing • PO Box 67000 • Harrisburg, PA 17106-7000

I hereby certify, under penalty of law, that the foregoing information is true and correct to the best of my knowledge, information and belief. I understand that submission of false information in connection with this official application may be subject to criminal penalties under 18 Pa. C.S. Ch. 49 and 30 PA. C.S. Ch. 9.

_____

Applicant's Signature or Parental Signature if Applicant is Younger than 18 Years of Age

Rev: 04/2019

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.

- **Boating Education 717-705-7833**
- **Boat Registration 866-262-8734**
- **Law Enforcement 717-705-7861**
- **Commission Boating Course Hotline 1-888-PAFISH-1 (1-888-723-4741)**

Visit the Commission's website for more information: **www.fishandboat.com**

PLEASE NOTE: This handbook was prepared to provide boaters with information they need to know when operating watercraft on Pennsylvania waterways. It reviews the Commission's boating regulations and includes information and tips to follow while boating. It does not present the actual laws and regulations. This handbook is the text for the Commission's Pennsylvania Basic Boating eight-hour boating course.

The Pennsylvania Fish & Boat Commission receives federal aid in sport fish restoration and boating enhancement. Under Title VI of the Civil Rights Act of 1964 and Section 509 of the Rehabilitation Act of 1973, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin or handicap. If you believe that you have been discriminated against in any Commission program, activity or at a Commission facility, please write to: PA Fish & Boat Commission, Personnel Office, P.O. Box 67000, Harrisburg, PA 17106-7000, or Office of Equal Opportunity, U.S. Department of the Interior, Washington, D.C. 20240.

Persons with disabilities who wish to participate in a Fish & Boat Commission program and who anticipate the need for special accommodations should telephone (717) 705-7833. This publication is available on our website at **www.fishandboat.com** and may also be obtained as a computer file (alternate accessible format) by contacting the phone number above. Persons using a TTY should dial Pennsylvania Relay telephone number 711 to contact us.

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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:**

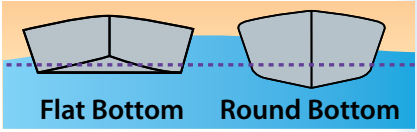
1. **Outboard motors** vary in size and clamp onto the transom. The whole motor pivots on its mounting to aim the wash and steer the boat. The boat turns in the opposite direction that the tiller arm is pushed. Electric motors are outboards.
2. **Inboard/outboard (or sterndrive) motors** are bolted inboard,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

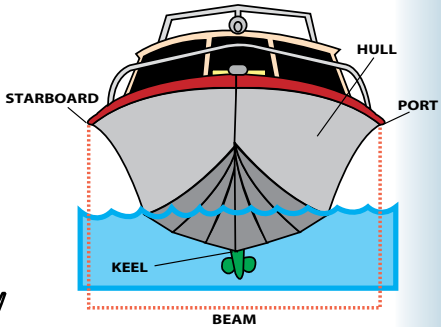
Stern- the aft (back or rear) portion of the boat.

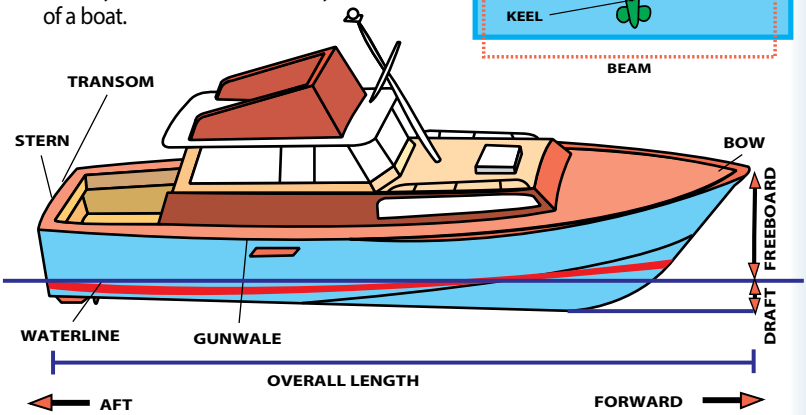
Transom- the transverse part of the stern (where an outboard motor is attached).

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"

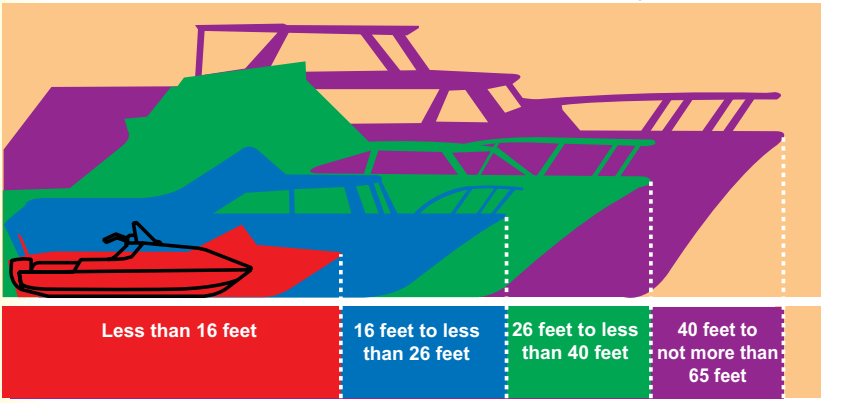
"2(a) Nothing in these Rules shall exonerate any vessel, or the owner, master, or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case."

"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.

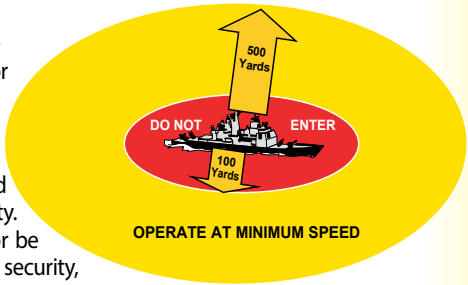
40 feet to not more than 65 feet (Class 3)
Large, expensive boats with advanced features.

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

WEAR IT
National Safe Boating Council
Pennsylvania

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.

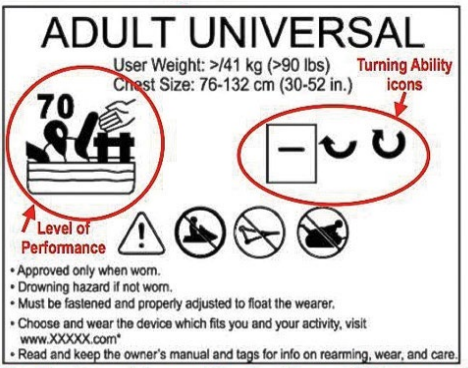
LIFE JACKET AND THROWABLE DEVICE REQUIREMENTS:

- 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.

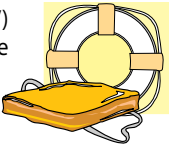
Selection and Warning Panel:



Certification and Approval Panel:

Care and Maintenance Panel:

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.

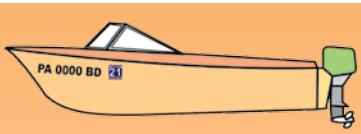
LIFE JACKET WEAR REQUIRED BY LAW: NOV.1 TO APRIL 30

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



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 "I" 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.

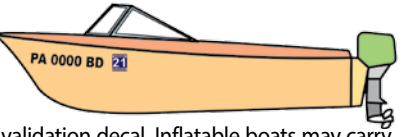
Boat registration fees are as follows:

$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

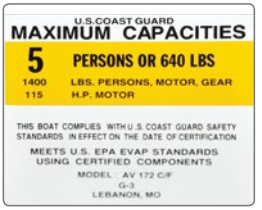
A certificate of title is a legal document that proves ownership. Boat titling is different from boat registration, because a certificate of registration does not prove ownership. A certificate of title requires all owners of a boat to sign off on their interests when selling and provides the purchaser 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

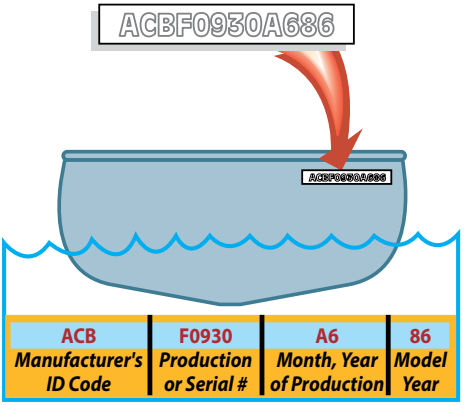


The capacity plate provides important information about the boat including maximum weight capacity, maximum horsepower, maximum person capacity by number and maximum persons capacity by weight. Individuals being towed behind a boat (e.g. waterskiers, tubers, kneeboarders, wake surfers, parasailers, etc.) 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.



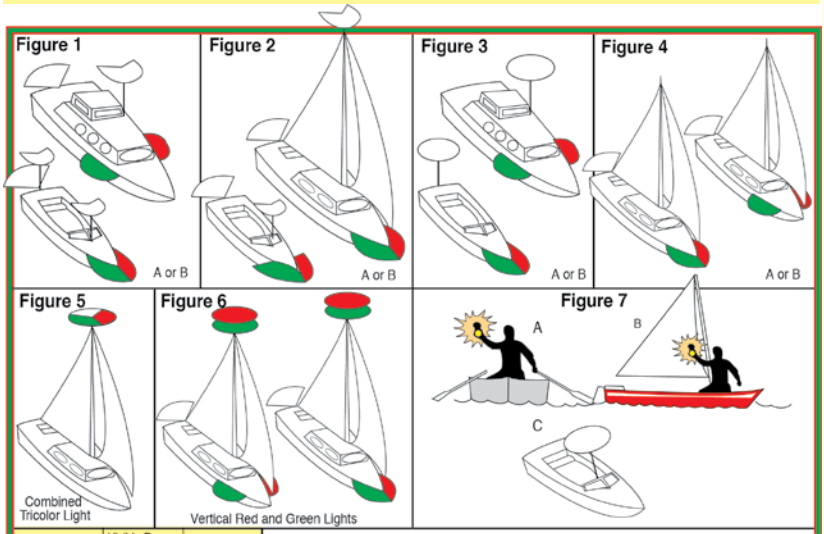
Key to Month of Production
A=January
B=February
C=March
D=April
E=May
F=June
G=July
H=August
I=September
J=October
K=November
L=December

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.**



Location of Lights on Vessel	Visible Range: less than 12 meters	Visible Range: 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 boatable 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***

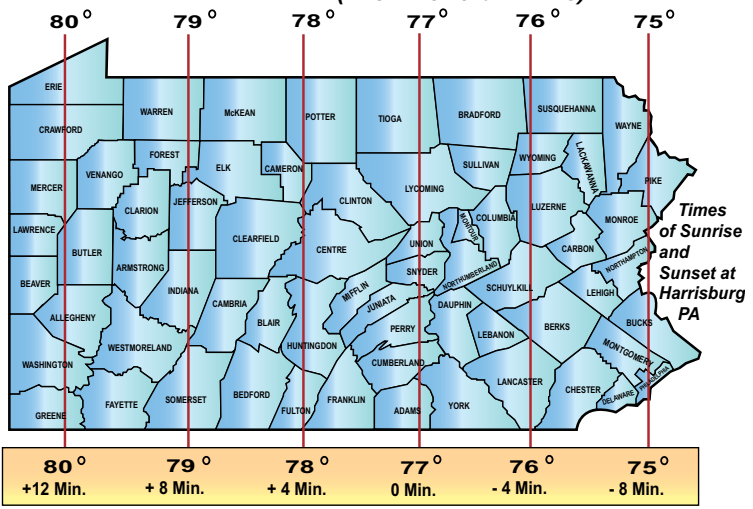
Type of Boat	Length	Figure
Powerboat	< 12 meters	1, 2 or 3
Powerboat	12 - 20 meters	1 or 2
Sailboat (sail only)	< 20 meters	4, 5 or 6
Sailboat (sail only)	Any	4, 5 or 6
Sailboat (sail only)	< 7 meters	**7B** This is a white light either hand-held or installed ready to be displayed in time to avoid a 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	Jun1-7	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			

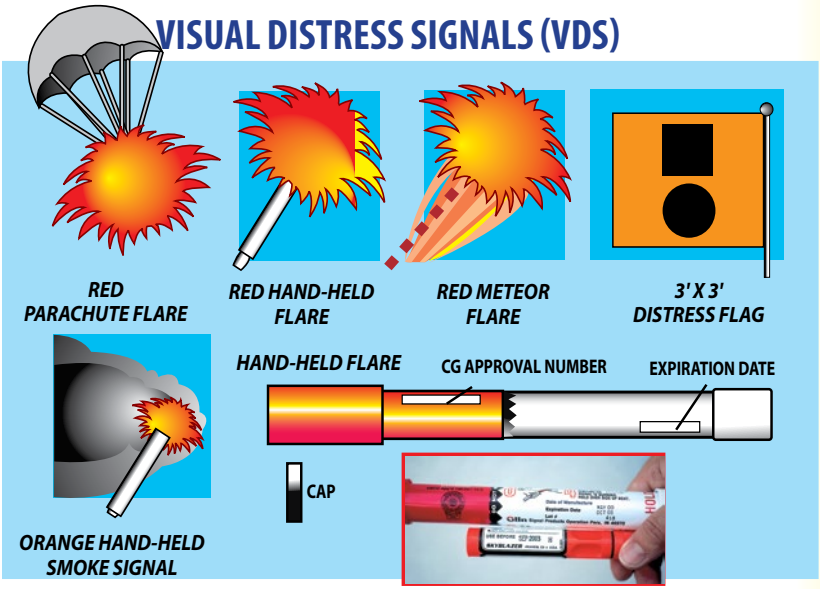
MERIDIAN MAP ***(77th Meridian Time)***



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

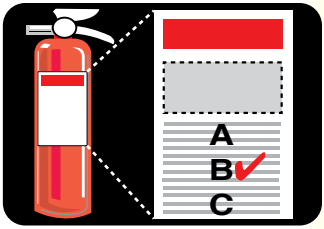
Smart boaters ensure that their boats are equipped with the proper safety equipment. The chart below lists the minimum required equipment for motorboats.

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)*

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

FIRE EXTINGUISHERS



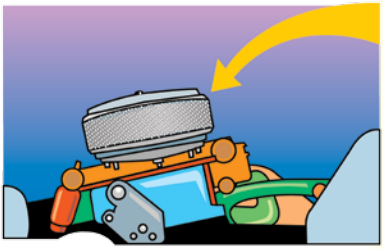
Fire extinguishers are classified by letters and numbers. The letter indicates the type of fire the unit is designed to extinguish. For example, a type B extinguisher is meant to put out flammable liquids, and type C is for electrical fires. The number stands for the amount of extinguishing agent in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

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

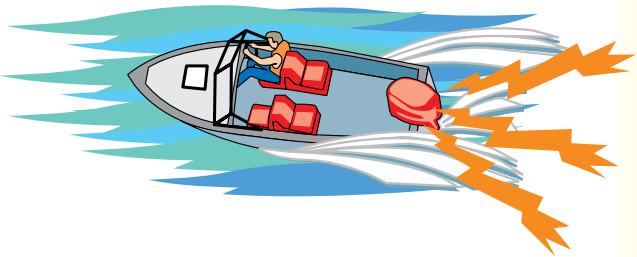


CARBURETOR BACKFIRE FLAME CONTROL

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.



BOAT OPERATION

Safe boat operation is coupled with preparation, prevention and practice. Each time before you start out on your next boating trip, follow these guidelines for maintenance, departure, trailering, launching and retrieving, docking, rules of navigation, night operation and anchoring.

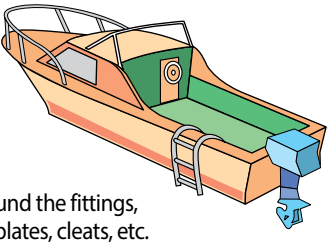
PRE-DEPARTURE CHECKLIST

To ensure a safe and problem-free boating experience, make a checklist of items similar to the one below and use it before each trip:

- ✓ **Life jackets:** Examine each life jacket for condition and ensure you have the correct number and sizes, appropriate for the intended activity on board.
- ✓ **Weather:** Check the weather forecast for the area and time frame you will be boating.
- ✓ **Float plan:** Be sure to leave a float plan with a family member, friend, neighbor or a marina operator.
- ✓ **Fuel:** Make certain you have enough fuel and know where you can refuel. Use the one-third rule: one-third tank for your trip, one-third tank to return to dock or launch ramp and one-third tank for emergency use.
- ✓ **Battery and fire extinguishers:** Be sure the engine battery is fully charged and your fire extinguishers are properly charged.
- ✓ **Boat check:** Use the checklist under "Preventative Boat Maintenance" to make sure your boat is in safe, operable condition.
- ✓ **Conduct an onboard safety discussion with passengers:** Everyone on board needs to know in advance what is expected of them and where they can find needed equipment. The discussion should include information on the location and proper use of life jackets (PFDs), fire extinguishers, visual distress equipment and first-aid kit. Explain emergency procedures; rules prohibiting discharging waste overboard; basic operation of the marine radio (if one is installed); other items such as boat operation, weather and/or water conditions, anchoring procedures, docking and line handling, and the dangers of falling overboard and being struck by the propeller.

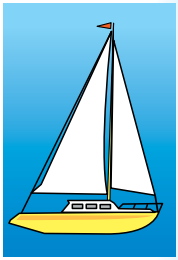
PREVENTATIVE BOAT MAINTENANCE

Inspecting your boat and equipment before you launch or leave the dock can prevent many possible problems. Examine onboard safety equipment (life jackets, throwable devices (sizes and condition), fire extinguishers, bailers, anchor, etc.), motor, fuel, electrical systems, through-hull fittings and accessory attachments. Follow the owner's manual for regular maintenance on the boat and equipment; this will pay off by minimizing problems afloat. Here are some other tips:



Hull condition:

- Check for any cracks or crazing.
- Ensure the hull sounds solid.
- Pull on the transom to ensure that it is solid.
- Make sure there is a drain plug and it is in place.
- Drain all water from the engine compartment.
- Check the bilge for any water. Check for cracks around the fittings, above and below the waterline and around chain plates, cleats, etc.



Rigging and sails:

- Check for signs of wear or fraying.
- Repair small tears or open seams by taping or sewing.
- Keep lines clean and store in a dry area out of the sun.

Engines, fuel tanks and lines, mechanical:

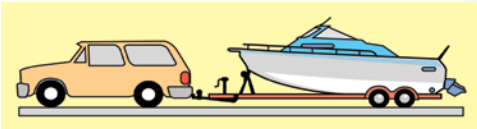
- Follow the manufacturer's maintenance plan.
- Check for fuel leaks from the tank, carburetor, engine compartment and fuel lines.
- Check hose connections for leaks or cracks and make sure hose clamps are secure.
- Examine the ignition safety switch and lanyard for wear and proper operation.
- Check for proper operation of steering and other controls.
- Drain the fuel tank at the end of the season or use a fuel stabilizer.

Check for signs of wear and corrosion:

- Check for cracks or leaks.
- Check for firm hoses, free of leaks, and use double clamps.
- Make sure the backfire arrestor is attached and serviceable.
- Check belts, the battery for corrosion and anything unusual.

LEAVE A FLOAT PLAN

Let others know before you go: A float plan should be filled out and left with a reliable person before you leave on all boating trips. The plan lets others know where you are going, when you expect to return, who is going with you and what emergency measures or rescue organization should be notified in the event you do not return as scheduled. Remember to contact the person you left the float plan with when you return. In addition to leaving a paper copy of a float plan behind, many boaters are also providing e-mail versions of their float plan with others. *Complete the float plan at* **www.fishandboat.com/Boat/Boating/Documents/FloatPlan.pdf** *before going boating, and leave it with a friend.*



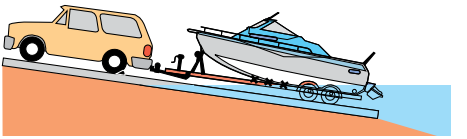
TRAILERING

Trailering is a package deal, which includes the boat, trailer, hitch and tow vehicle. Everything must be compatible. The tow vehicle hitch must match the trailer ball. The hitch should be mounted to the frame of the towing vehicle. Do not use bumper hitches. Trailer tires must have sufficient load-bearing capacity and be appropriate for the trailer. Practice is a key aspect of trailering. Before taking your boat on the road, use an empty parking lot to practice turning, parking and backing up. Before towing your boat:

- Check your tires.
- Make sure your wheel bearings are greased.
- Ensure the trailer hitch is firmly on the trailer ball, and it is latched and secured with a pin or lock.
- Cross and attach the trailer safety chains to the tow vehicle in an "X" pattern. Trailer safety chains should not drag (required by law).
- Make sure your lights work with your vehicle (required by law).
- Secure the winch, other tie down straps and any loose items.
- Always carry a spare tire for your trailer.

LAUNCHING AND RETRIEVING

Prepare your boat well away from the boat ramp, so you do not block ramp traffic. Before you launch, it is helpful to make sure you have not missed any important points:



- Put the plug in.
- Raise the motor.
- Disconnect trailer wiring and tie-downs.
- Tie a line to the bow to maintain control of the boat.
- Slowly back your boat trailer into the water and set the emergency brake.
- Disconnect and secure the winch and safety chain from the bow.
- Push or motor the boat off the trailer while somebody holds the bow line.

Retrieval is the opposite of launching.

BOARDING

Stability is very important when boarding a small boat. Wearing a life jacket when boarding is a common sense safety precaution. Passengers should steady the boat from the dock or shore while the operator boards. Maintain three points of contact when boarding and moving about a boat. Once in, the operator should steady the boat for others. When boarding, everyone should keep his or her weight as low and as close to the boat's center as possible. Holding onto the gunwales is the best way for boarders to keep steady.

Equipment and gear should be loaded onto the boat one item at a time, handing it to someone already on board. The load should be evenly distributed and secured so it doesn't shift.

BOAT TRIM

Boat trim (the way a boat floats) is vital in a small boat. Weight should be distributed in the boat to keep the bow light. Keep the boat from listing (leaning to one side) by distributing weight equally from side to side. Sudden, sharp turns should be avoided and the boat's capacity must never be exceeded.

BOAT HANDLING

All boats handle differently and inexperienced operators need hands-on practice with a capable teacher to become proficient in handling their boat. A motorboat is most easily maneuvered going against the current or wind. When moving with the current, the boat must be going faster than the speed of the current to maintain control and maneuverability. Boats do not have brakes. To reduce speed quickly, the motor should be put in reverse and power applied. Stopping in this manner requires practice to avoid water washing in over the stern. Consult the owner's manual for proper procedures.

DOCKING

Docking is a very difficult maneuver, especially for the new boater. Learning to dock also requires practice with a capable teacher. When docking, a boater must keep in mind that the boat's steering mechanism is located at the stern (back), which will move first, followed by the bow (front of the boat). Docking is similar to landing an airplane; you must encounter a fixed object but do so softly without inflicting damage. At the same time, environmental conditions such as current, wind and waves can make your approach more complicated.

Depending on the situation, docking procedures vary. Fenders, mooring lines, a boat hook and a heaving line should be ready. The approach to the dock should be planned.

If possible, the boat should be headed into the current and/or wind to slow down and to more easily control it. A common method when docking in current is to slip the boat sideways bit by bit toward the dock, pier or slip. When docking correctly, the boat feels like it is moving in slow motion. After docking, a line should be secured from the dock to the bow of the boat. The current will hold the boat against the dock while the remaining lines are tied off.

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. For specific information on illegal use of docking lights, *see page 15*.

DOCKING TECHNIQUES

Although there are subtle docking differences between propulsion systems and watercraft, the following guidelines apply to most docking conditions:

1. **Survey the dock:** Look for moving boats and traffic, available hands, and the locations of cleats or pilings.
2. **Visualize your approach:** Determine which side is better. Identify what lines you intend to use and who will do what.
3. **Plan an exit strategy:** If things don't go according to plan, back out and try again rather than continue a flawed approach. Also, consider approaching from another direction or selecting another dock. Plan for a no-escape situation: If you get into a situation from which escape is difficult, use spring lines with dock hands or fellow boaters on the dock to help keep you in control.
4. **Approach slowly,** docking is no place for speed. Relax and stay focused.
5. **Use only the power necessary** to move the boat and maintain control. Alternating between idle speed in gear and drifting in neutral is one way to slow your movement. Apply very brief bursts of power to help with steering and then shift to neutral to limit your speed.
6. **Deploy boat fenders or other devices to protect the hull.**
7. **Use a boat hook** to pull the boat closer to dock. If someone is available, hand them a line. Do not jump from the boat to dock.

Additional docking tips for specific situations.

With Wind or Current Ahead. Approach at a moderate angle (about 15 to 20 degrees) slowly and with fenders and lines at the ready. As you touch the dock, reverse power to halt your advance and hand a line to a dock hand. If no dock hand is available, use a boat hook or have a crew member step (not jump) from the boat to the dock to secure the line.

With Wind or Current Behind. In this situation, your big concern is pin wheeling if the wind or current takes the stern, so do not tie the bow first. Slow your approach by throttling back. Your angle should be a slight 5 to 10 degrees—coming alongside the pier. Reverse throttle slightly to still your approach; tie an aft quarter spring line. Then, tie your bow; tie remaining lines.

With Wind or Current Off the Pier. This is more challenging. You will need to increase the angle of your approach and use just enough power to reach and hold the dock. Now have a crew member toss the line to a dock hand or carefully step on the dock to secure the line. You will be using power against a spring line to pull the boat parallel to the dock and hold it until you are secured by lines.

With Wind or Current Toward the Pier. Line up next to the pier and let the wind take you in.

DEPARTING

When departing, your boat will naturally point into the current or wind—whichever is dominant. If the current is strong, be prepared to counter it, especially if there are boats astern of you.

Untie the line and toss it from the bow, making sure the line is far enough away that it won't foul the propeller. It's easiest if a member of your crew does this for you, because you may need to apply some power in forward gear to maintain your position. If you have to do this yourself, get to the helm quickly to take control. Do not apply propulsion and leave the helm to go to the bow.

Once you're free, drift backward until you have clearance. Apply light forward throttle while also turning to go around rather than over the mooring line. Once you've moved to the side, power away.

BOAT NAVIGATION RULES

The navigation rules contained in this handbook are a summary for which a boat operator is responsible on inland waterways and Lake Erie. Additional and more in-depth rules apply regarding various types of waterways (such as International Waters and Western Rivers) and operation in relation to commercial vessels and other watercraft. It is the responsibility of a boat operator to know and follow navigation rules. In those states where Inland Rules do not apply, the equivalent International, Western Rivers or Great Lakes rule(s) may be substituted. For a complete listing of the navigation rules, refer to the document "Navigation Rules" published by the U.S. Coast Guard (COMDTINST 16672.2 Series). This is available through the U.S. Government printing office or online at **www.navcen.uscg.gov**. Refer to the state laws where you intend to boat for state-specific navigation requirements.

The purpose of the navigation rules (rules of the road) is to prevent collisions. Since there are no traffic lines and few signs on the water, boat operators must make choices. Common sense is required, but boaters must also know the rules of the road. Operators are responsible for:

- The safety of all passengers in the boat.
- The boat's wake and any damage caused by it.
- Maintaining a proper lookout and operating at a safe speed for the conditions.
- Using good seamanship, which is the foundation of the navigation rules.

PROPER LOOKOUT

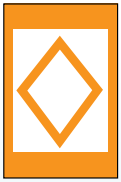
Boat operators must maintain a proper lookout at all times when operating a boat. Collisions and other types of accidents can be avoided by scanning all around the boat for swimmers, other boats and obstructions. Listening for dangerous situations is also a part of maintaining a proper lookout. Passengers should be asked to assist.

AIDS TO NAVIGATION (ATON)

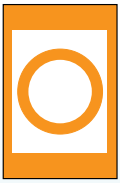
The closest things to signs on the water are aids to navigation (ATON). The purpose of ATON is to help boaters avoid problems on the water and for navigation when used in combination with a nautical chart. ATON includes buoys and daymarks (or dayboards). The U.S. Aids to Navigation System has been adopted by the Commission for use on all Commonwealth waters. Boaters should learn this system and presume nothing. Navigational aids are often moved by the Coast Guard, the PFBC, storms, heavy currents or vandals.

In the U.S. Aids to Navigation System, markers designate the edges of a channel and the direction of open water. The colors of these markers are

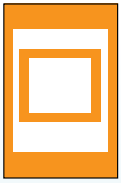
BOATS KEEP OUT!
Nature of danger may be placed outside crossed diamond such as dams, swim areas or rapids.



DANGER!
Nature of danger may be indicated inside the diamond shape such as rocks, shoals, dams, construction or stumps.

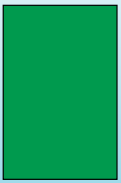


CONTROLLED AREA!
Area as indicated in circle such as speed limit, no fishing, no anchoring, ski only, slow-no wake, no prop boats or no ski.

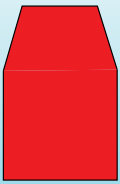


INFORMATION
Tells directions, distances, places, food, repairs, supplies and other non-regulatory messages.

MOORING BUOY
White with reflectorized blue band. May have white light or reflector.



CHANNEL
Lateral System. Buoy on port side facing upstream.



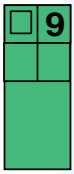
CHANNEL
Lateral System. Buoy on starboard side facing upstream.

MID CHANNEL
Lateral System. Pass close on either side.

important. Red markers indicate that boaters should navigate with the markers on their starboard (right) side when traveling upstream. Remember the slogan "Red, Right Return," to find your way home to port. Green markers indicate that boaters should navigate with the markers on their port (left) side when traveling upstream. Red markers have even numbers and green markers have odd numbers.

To aid visibility, these buoys may also have lights that match their color. Further distinction between buoys is recognized by their shape:

- **Nun buoys:** These are cone-shaped red buoys with even numbers and mark the edge of a channel on a boaters starboard (right) side when entering from the open sea or heading upstream.
- **Can buoys:** These are cylindrical-shaped green buoys with odd numbers and mark the edge of the channel on your port (left) side when entering from the open sea or heading upstream.



Information and regulatory markers are used to alert boaters of various warnings and regulatory matters. These regulatory markers are white can buoys with orange shapes and black lettering.

SAFE SPEED

A boater's speed of operation will vary according to the weather, water conditions, time of day or night, other boat traffic and individual boat characteristics. Safe speed allows the operator to be in control and take correct action to avoid a collision.

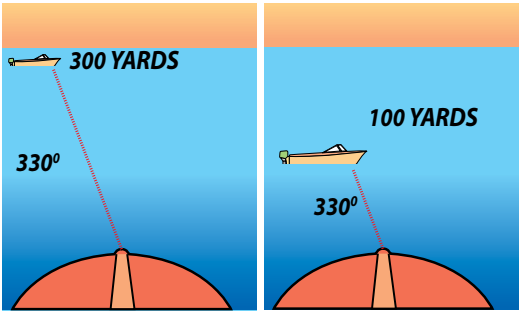
RISK OF COLLISION

A risk of collision exists when there is the possibility that two boats will arrive at the same point on the water at the same time. The first indication of a risk of collision is when one operator notices that another boat has a constant bearing (or constant relative position) and a decreasing range (the other boat is getting closer). When this occurs, the Rules of the Road make one boat either a stand-on (privileged) vessel or a give-way (burdened) vessel

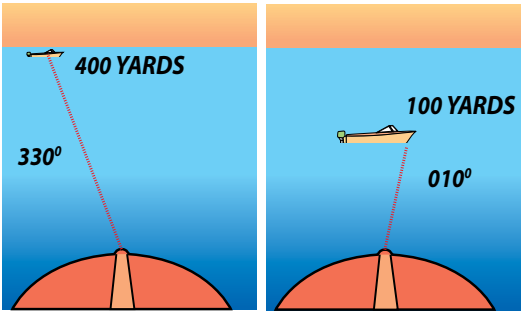
(explanation follows). The risk of collision ends when both boats have avoided the collision by proper action under the rules and are moving safely away from each other.

STAND-ON AND GIVE-WAY VESSEL

Under the Rules, the stand-on vessel is required to maintain its course and speed. The give-way vessel is required to stop or slow down or, when overtaking, to pass the other vessel in a safe manner. Under no circumstances should the stand-on vessel assume that the give-way vessel is going to take the action required to avoid a collision. Both operators are required to avoid a collision in any situation.



CONSTANT BEARING - DECREASING RANGE

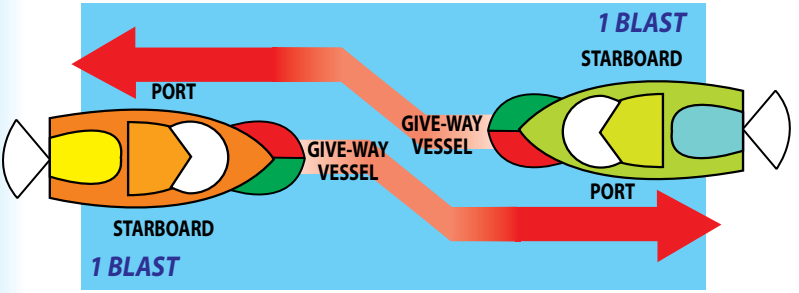


CHANGE IN BEARING - DECREASING RANGE

RULES FOR POWER-DRIVEN VESSELS UNDERWAY

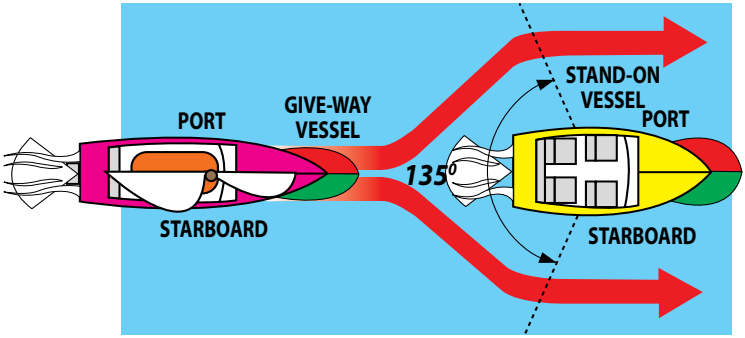
HEAD-ON (MEETING) SITUATION

When two boats meet head-on, both boats are required to turn starboard (to the right) to avoid the other. At night, a head-on situation exists when both the red and the green running lights are seen at the same time. Lights required on boats are explained previously in this handbook. Sound signals used when maneuvering are explained *on page 27*.



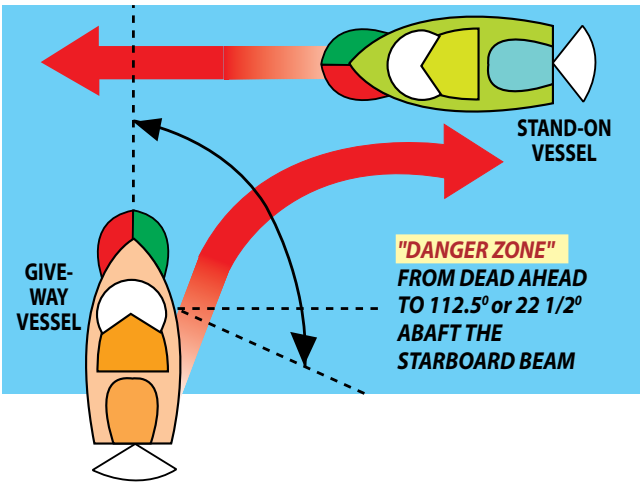
OVERTAKING (PASSING) SITUATIONS

The boat being passed is the stand-on vessel. It must maintain its course and speed while the overtaking (give-way) vessel passes by. The overtaking boat is always the give-way vessel, and it may pass on either side.



CROSSING SITUATION

All boats have a danger zone from dead ahead (12 o'clock) to 4 o'clock (112.5 degrees) starboard (the right). In a crossing situation, the boat in the danger zone (ahead and to the right) is the stand-on vessel. The give-way vessel must stop or slow down and let the stand-on vessel continue on. If the give-way vessel does not take the required action in this or any of the other situations, then the stand-on vessel operator must be prepared to take action to avoid a collision.



SOUND SIGNALS

Sound signals should be made when within hearing distance of another vessel to indicate your intentions when meeting, crossing or overtaking another vessel. Your signal should receive a response signal from the other vessel indicating their agreement or disagreement with your intentions.

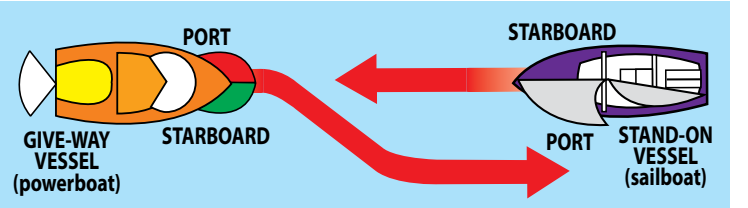
Short Blast- one-second duration **Prolonged Blast-** 4 to 6 seconds duration

1 Short Blast- I intend to leave you on my port side (boat turns right).

2 Short Blasts- I intend to leave you on my starboard side (boat turns left).

3 Short Blasts- I am operating in reverse (astern propulsion).

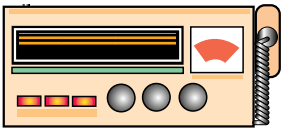
5 or More Short Blasts- Doubt or danger (danger signal used when the other vessel's intentions are not understood or where the other vessel's indicated course is dangerous).



OTHER IMPORTANT RULES OF THE ROAD

- A power-driven vessel must give way to any sailing vessel that is under sail only (no auxiliary power propulsion).

  Exceptions:
  - When a sailboat is overtaking a power-driven vessel (power-driven vessel is the stand-on vessel and maintains course and speed while being overtaken).
  - When a sailboat is approaching a boat at anchor (the power-driven vessel remains anchored).
- In narrow channels, recreational vessels under 65 feet long must not hamper the operation of large vessels that cannot operate outside the channel. Boats should operate as near to the outer limit of the channel that lies on its starboard (right) side as is safe and practicable.
- Vessels restricted in their ability to maneuver, such as tugs with barges, ferryboats, commercial fishing boats with nets or lines out or boats at anchor, are stand-on vessels.
- Vessels not under command (usually because of mechanical problems and are unable to steer) or constrained by their draft are stand-on vessels.
- On a river, a boat operating upriver (against the current) gives way to a boat operating downriver (with the current). A boat operating across the current gives way to boats operating both upriver and downriver.



VHF RADIO

A VHF (very high frequency) radio is used to communicate with other boaters, the Coast Guard, commercial vessels, draw bridge tenders and lock operators. A VHF is not required to be U.S. Coast Guard approved. Recreational boaters are not required to carry VHF radios, but they are highly recommended on larger waters, such as Lake Erie. The Federal Communications Commission (FCC) regulates their use. Recreational boats less than 20 meters in length are NOT required to have a station license to operate a VHF radio unless they travel to foreign ports or transmit to foreign stations. Use of a VHF radio is enforced by the U.S. Coast Guard.

There are many channels on the VHF, but recreational boaters are given access to only a few.

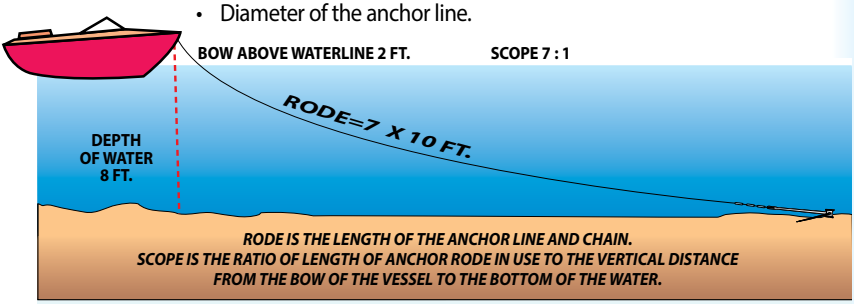
6	intership safety communications only
9	commercial and non-commercial intership, ship to coast and alternate calling channel
13	ocean-going vessels, bridge tenders, tugs while towing, locks
16	distress safety and calling, call Coast Guard, establish general contact
24-28, 84-88	public telephone calls (to call the marine operator)
68, 69, 71 and 78	non-commercial intership and ship to coast (recreational boat working channels)
72	non-commercial intership only

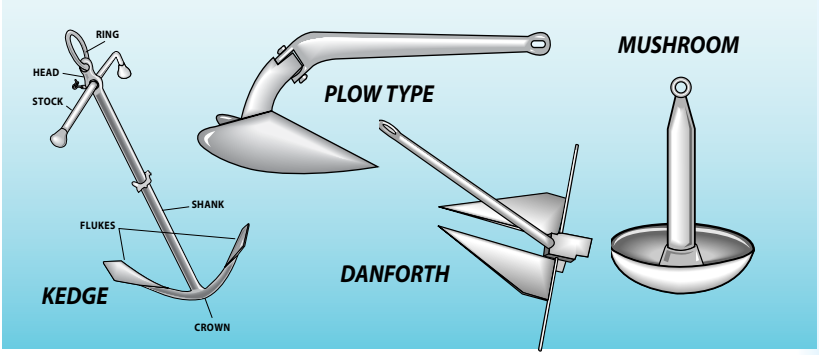
Marine weather (WX-1, WX-2, WX-3) stations broadcast the latest available weather information from the National Weather Service continually. Forecasts are updated every six hours or more often as conditions require.

ANCHORING

It is essential that every boater becomes proficient in anchoring. Some anchoring considerations include:

- Type and weight of the boat.
- Character of the bottom in the area you are boating (rocky, sandy).
- Average depth of the water.
- Strength of the wind and current.
- Diameter of the anchor line.





There are different types of anchors: kedge for rocks and heavy grasses, burying for sand and mud, mushroom for permanent moorings. The two questions boaters should ask themselves about anchoring are: which type of anchor will they need, and how much rode (the length of the anchor line) is necessary?

Anchors hold best when the pull of the rode on the anchor is as near to horizontal as possible. The holding power of an anchor increases as the scope ratio increases. A ratio of 7:1 is standard; 10:1 is better in rough water. For example, if boating in 8 feet of water and the bow is 2 feet above the waterline, 70 feet of rode is recommended. Boaters should carry at least two anchors. A smaller, lighter anchor is good for use in calm weather and for positioning a boat, and a larger anchor is best for bad weather or when anchoring overnight. **Never anchor from the stern, especially in current or waves.** The anchor line should be tied to the bow. The end of the anchor rode (called the bitter end) must be secured to the boat

To anchor, the boat should be headed into the wind or current. The engine is then reversed, or the boat is allowed to back off. When the boat begins to drift backward, lower the anchor from the bow (front of the boat). No one should be standing on any part of the anchor line. When about a third of the rode is out, the rode is tied off to a forward cleat to make the anchor dig into the bottom. Once the anchor digs in, the remaining rode is let out. A sight bearing is then taken on some stationary objects to make certain that the anchor is not dragging on the bottom.

Anchors can also be used as safety devices in an emergency situation. The operator may drop the anchor quickly to avoid running aground in the event the boat loses power. Make sure the anchor and line are stored in an easily accessible place.

Exercise caution when "weighing" (pulling up) anchor. The combination of anchor pull, current and weight can swamp a small boat. The anchor should be lifted as vertically as possible. As it is lifted, it can be washed. Take care that it does not hit the side of the boat.

LOCKS AND DAMS

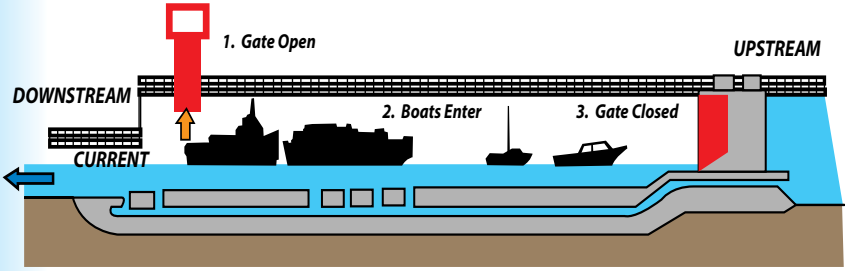
In Pennsylvania, locks and dams are located on the three rivers in and near Pittsburgh (Monongahela, Allegheny and Ohio rivers). The dams provide a navigable channel for river traffic. Locks are a means of passing vessels through the dams. The locks in Pennsylvania are built and maintained by the U.S. Army Corps of Engineers.

At locks, the lockmaster is in control and will signal your boat to enter with a horn or a light system.

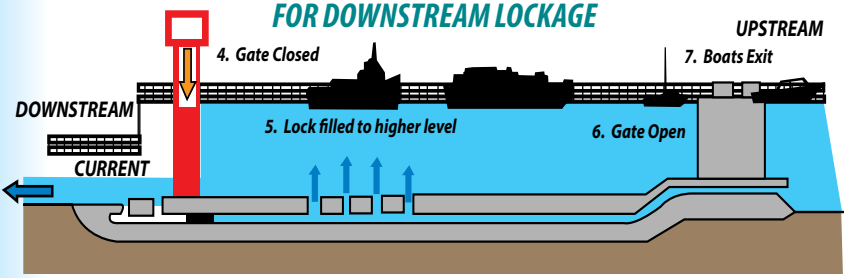
There are priorities (of boats) set for safe and efficient passage:

- military craft
- mail boats
- commercial passenger craft
- commercial tows
- commercial fishermen
- pleasure boats

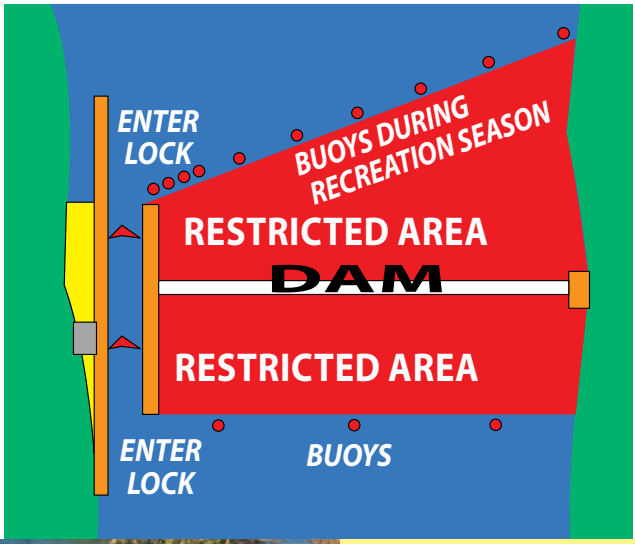
Before entering a lock, the boat should stop at least 100 yards from the lock entrance. The lockmaster can be signaled by the boater with a long and short blast of the horn, on the marine radio (channel 13) or with a signaling device on the lock wall. Once the lockmaster has been signaled, the boat must stay clear of the lock chamber until signaled to enter. Fenders and mooring lines (minimum of 75 feet) should be ready. Once inside the chamber, the lock lines are adjusted with the water levels. The boat must not be tied fast to the lock wall. Life jackets should always be worn.



HOW LOCK SYSTEMS OPERATE—REVERSE PROCEDURE FOR DOWNSTREAM LOCKAGE



TYPICAL FIXED-CREST DAM



LIGHT SYSTEM

THE ONE THAT IS FLASHING IS THE LIGHT TO OBEY.

1. **Red - Stand clear, do not enter.**
2. **Amber - Approach the lock under full control.**
3. **Green - Enter the lock.**
4. **Amber/Green - Enter the lock with caution.**

BOAT THEFT

Small boats are very vulnerable to theft. Titled boats are easier to identify and much more difficult to sell illegally. Boat dealers and other purchasers are more certain that someone offering a titled boat for sale has the legal right to do so.

BOAT AND MOTOR THEFT PREVENTION CHECKLIST

- ✓ **Secure it.** Store your boat and motor in a secure location. Use a hitch lock to secure your boat trailer. Lock your outboard motor to your boat with a motor lock or chain and padlock.
- ✓ **Mark it.** Use an engraving tool to mark your boat, motor and the marine equipment with a unique identification (driver's license number, etc.). Hide your engraved identification in a location where it is not easily found.
- ✓ **Record it.** Keep a record of your boat and motor's make, model and serial numbers.
- ✓ **Report it.** Immediately report any theft to your local police and to the Pennsylvania Fish & Boat Commission, Division of Licensing and Registration, in Harrisburg, at 1-866-262-8734. Reporting your loss to the police and PFBC may lead to its recovery in the event someone attempts to sell or register it.

OTHER WATER ACTIVITIES

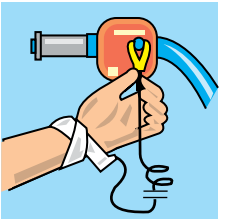
PERSONAL WATERCRAFT (PWC)

PWCs are defined as vessels less than 16 feet in length that use an inboard engine powering a water jet pump as their primary source of propulsion, designed to be operated by a person sitting, kneeling or standing in other than the conventional manner of boat operation. Other vessels may use jet propulsion, however, these vessels are not considered a PWC.

These boats are fast and maneuverable and can be operated in relatively shallow water. PWC operators are involved in a disproportionate number of boating accidents. Collisions are the most common type of accident reported and are usually caused by the operator not keeping a proper lookout or operating the boat in a reckless manner. Many of these accidents are caused by people new to PWC operation, and nearly all of these accidents are avoidable.

PWC operators must follow the same laws and regulations as other boaters. ***Pennsylvania regulations require that PWC operators must:***

- Wear life jackets at all times. All passengers must also wear life jackets. Inflatable life jackets are not acceptable.
- Carry a fully charged fire extinguisher on board. (see fire extinguisher section)
- Carry a sound-producing device on board.
- Attach the cut-off switch safety lanyard to clothing, body or life jacket. The purpose of the switch is to stop the engine in case the operator falls off.

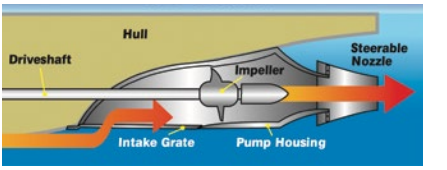


Furthermore, it is illegal:

- For anyone to operate a PWC without having in one's possession a Boating Safety Education Certificate. See page 2 on how to obtain a certificate.
- To rent a PWC to anyone 15 years of age or younger. No one less than 16 years of age may operate a rented PWC.
- To operate a PWC from sunset to sunrise. See *page 16* for timetable.
- To tow a water skier behind a PWC with a capacity of two people or fewer and to tow more than one skier.
- For anyone 11 years of age or younger to operate a PWC.
- For anyone 12 through 15 years of age to operate a PWC with any passengers on board 15 years of age or younger.

PWC CHARACTERISTICS

- Jet pump propulsion, which eliminates a rudder or exposed propeller.
- A steerable nozzle is located at the stern of the boat.



- A cut-off switch and safety lanyard, which stops the engine when the operator falls off the PWC.
- PWCs are highly maneuverable. Releasing the throttle (or slowing the engine) usually eliminates the ability to steer the craft.

PWC OPERATION

PWC operators should be responsible and considerate of others around them. Noise is the most common complaint against PWC operators. A PWC must be equipped with an efficient muffling system in good working order, which cannot be bypassed or altered. Courteous PWC operators will vary their areas of operation to reduce repetitive course tracking, stay away from shorelines and be aware of all boats and people in the area of operation.

Everyone who operates a PWC should read the owner's manual and become familiar with the craft before going out on the water. Practice is essential for safe PWC operation. PWC operators must connect the safety lanyard to both the cut-off switch on the PWC and their life jacket, body or clothing. If the operator falls off, he should re-board the craft from the rear. PWCs have both "main" and "reserve" fuel tanks. Switch the fuel selector on your craft to "reserve" when the "main" tank has been used and head to shore to refuel. Safety gear, including gloves, eye protection, footwear, and wetsuit or dry suit for protection against cold water, is not required by law but advisable for PWC operators.

PADDLESPORTS

Canoeing, kayaking and stand-up paddleboarding are very popular recreational water sports in Pennsylvania. There are dangers that can be lessened with knowledge, preparation and practice. Primary hazards are capsizing, swamping or just falling out of the boat. Keep in mind that paddling is a "get wet" sport.

PADDLING TIPS

- **Wear your life jacket.** On average, 80 percent of all recreational boating fatalities happen to people who are not wearing a life jacket.
- **Expect to get wet and dress properly.** Even the best paddlers sometimes capsize or swamp their boats.
- **Be prepared to swim.** If the water looks too hazardous to swim in, don't go paddling.
- If you capsize, hold on to your boat, unless it presents a life-threatening situation.
- **Scout ahead whenever possible.** Know the river. Avoid surprises.
- **Be prepared for the weather.** Get a forecast before you go.
- Wear wading shoes or tennis shoes with wool, polypropylene, pile or neoprene socks.
- Never take your boat over a low-head dam.
- Portage (carry) your boat around any section of water about which you feel uncertain.
- **Never boat alone.** Boating safety increases with numbers.
- Keep painter lines (ropes tied to the bow) and any other ropes coiled and secured.
- Never tie a rope to yourself or to another paddler, especially a child.
- Kneel to increase your stability before entering rougher water, like a rapid.
- If you collide with an obstruction, lean toward it.
- **Be sure to leave a float plan.** It's a written statement that details your intended trip and is provided to a friend, neighbor or marina operator. Include specifics about the vessel, equipment, crew and departure and arrival times.

WATER-SKIING AND SIMILAR ACTIVITIES

Water-skiing includes conventional water-skiing, as well as anyone towed behind a boat on aquaplanes, kneeboards, inner tubes, air mattresses, parasails, kite skis, wake boards or any similar device. Participants in all of these types of activities are required to wear a life jacket. Persons engaged in barefoot, jump or trick skiing or wake surfing may elect to wear, at their own risk, a wetsuit designed specifically for that activity. A USCG-approved life jacket must be carried in the boat for each skier electing to wear the special water-ski wetsuit. Inflatable life jackets are not acceptable for anyone towed behind a boat.

WATER-SKIING HAND SIGNALS

In addition to the operator, a competent observer must be in the boat in a position to observe the progress of the person being towed. A competent observer is a person who has the ability to assess when a skier is in trouble, knows and understands the water-skiing hand signals and is capable of helping a skier.

- To prevent propeller-related accidents, turn off your engine before picking up any skier.
- Skiing is prohibited between sunset and sunrise.
- Skiers are also considered passengers and count in the boat's total capacity.
- It's unlawful to operate a boat when it is loaded with passengers (including individuals being towed behind a boat) or cargo beyond its safe carrying capacity.
- Skiers may start from the shore or dock if boat traffic permits. Skiers may not return to the shore or dock under power.
- Installation of ski ramps and jumps requires a permit from the PA Fish & Boat Commission. Mooring or drifting within 100 feet of a ski ramp or jump while it is in use is prohibited.
- Kite skiing and parasailing are permitted only on waters where unrestricted skiing is permitted.

- It is legal to tow more than one skier except when locally prohibited. Ski tow ropes may not exceed the following lengths (as measured from the boat's transom):

  Conventional water-ski- 80 feet Parasails- 300 feet
  Nonreleasable kite ski- 50 feet Releasable kite ski- 500 feet
- It is unlawful to operate a motorboat at any speed with a person or persons sitting, riding or hanging on a swim platform (teak surfing) or swim ladder attached to the motorboat, except when launching, retrieving, docking or anchoring the motorboat.
- It is unlawful to operate a motorboat at any speed when towing a person on water skis or other devices using a tow rope of 20 feet or less (as measured from the boat's transom). The minimum tow rope length does not apply to wake surfing.
- Boats engaged in the activity of wake surfing are limited to slow, no-wake speed when within 200 feet of the shoreline, docks, launch ramps, swimmers or downed skiers, persons wading in the water, anchored, moored or drifting boats and other marked areas.
- Motorboats propelled by an outboard motor, inboard/outboard motor or water jet are prohibited from towing a person in or on the wake of the boat.

SWIMMING AND DIVING

Swimming is prohibited at Pennsylvania Fish & Boat Commission lakes and access areas. Boaters should keep a sharp lookout for swimmers and divers at all times.

A diver down flag is displayed from a float during diving operations. This flag is red with a white diagonal stripe running from the top of the staff to the opposite lower corner.

The code flag alpha is a blue and white pennant, and boats must display this flag during dive operations if they are restricted in their ability to maneuver. Boats not engaged in diving operations shall remain at least 100 feet from areas displaying the diver down flag or boats displaying the code flag alpha.

SAILING

Sailing is another popular form of boating in Pennsylvania. Sailboaters may have different requirements than other boaters. They should be familiar with the operation and navigation requirements found in this handbook. Navigation lights are required after dusk and during periods of restricted visibility.

Sailboaters should stay off the water during storms and periods of extremely high winds. They should also be aware of overhead power lines. Life jackets should be worn at all times.

Another type of sailing vessel, the sailboard (windsurfer) is a single or double-hulled boat with jointed mast (surfboard with a sail). Sailboard operators in Pennsylvania must wear a life jacket. Inflatable life jackets are not acceptable.

HUNTERS AND ANGLERS

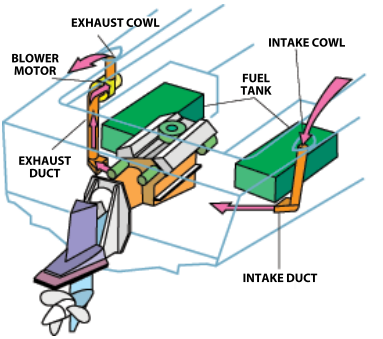
Hunters and anglers that use a boat as a platform to hunt or fish must remember that they are boaters too. Often these types of boaters get so involved with their sport they forget to follow all boating regulations, such as proper safety equipment, boating laws and the rules of the road. When fishing from a boat, remember to load your boat properly, remain seated, wear a life jacket and keep an eye on the weather. **Never anchor from the stern (back), and stay with your boat if it should capsize.**

Hunting from a boat is fun but can be dangerous. Fall weather is changeable and can be deadly for the boating hunter. Water temperatures are typically much colder during traditional hunting seasons. The hunter usually hunts from a small boat with a flat bottom. These boats are poorly suited for rough water. Life jackets appropriate for hunting should be worn at all times.

Please be aware of the mandatory cold-weather life jacket wear regulation, effective November 1 through April 30–*see page 11*.

SAFETY AND RESCUE

VENTILATION AND FUELING



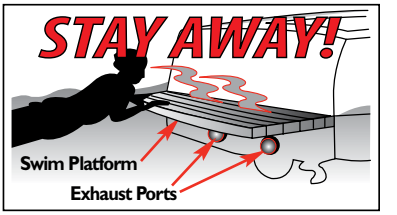
Gasoline fumes are heavier than air and will settle to the lowest part of the boat's interior hull, the bilge. All motorboats, except open boats, must have at least two ventilator ducts with cowls (intake and exhaust). Exhaust blowers are part of most boat ventilation systems. Permanently installed fuel tanks must be vented.

Most boat explosions occur from improper fueling. Portable gas tanks should be filled on the dock or pier, not on board. The vent on the tank should be closed and the gas pumped carefully, maintaining contact with the nozzle and the tank's rim. Any spills should be cleaned up, the tank secured and the vent reopened.

When filling inboard tanks, everyone should be sent ashore and the boat closed up. All electrical systems should be shut off. After filling up and before starting the engine, the blower should be run for at least four minutes. Take appropriate precautions to prevent spills. Avoid discharging oil and gas from your boat's bilge. Toxic substances must be disposed of properly. Noncompliance may result in fines.

Boaters should routinely check for leaks in fuel lines and fittings, frayed wiring and improperly rigged electrical systems.

CARBON MONOXIDE

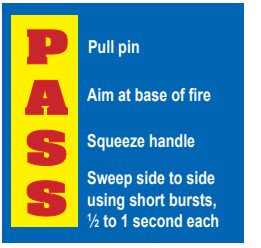


Carbon monoxide (CO) gas is a potentially deadly by-product of your boat's engine. Each year boaters are killed or injured by carbon monoxide. Stay away from exhaust areas and do not swim near exhaust vents. Never enter an enclosed area under a swim platform where exhaust is vented. Only one or two breaths of the air in this "death chamber" can be fatal. Keep air moving through the boat to avoid problems.

Symptoms of carbon monoxide poisoning depend on exposure. Brief exposure may produce shortness of breath, mild nausea and mild headaches. Moderate levels of CO exposure may cause death if headaches, dizziness and light headedness symptoms persist for an extended period of time. High levels of CO may be fatal causing death within minutes. If you suspect someone is experiencing CO poisoning, move the individual to fresh air immediately and call 9-1-1.

FIRE EXTINGUISHER USE

Fire extinguishers must be immediately available and installed (mounted away from the fuel source). They must be fully charged, in usable (good) condition and inspected regularly.



Make sure everyone on your boat knows the location of the fire extinguisher and its use. Operation of a fire extinguisher is rather simple. Just remember PASS.

RUNNING AGROUND

Keep a sharp lookout when traveling on waters that have shallow areas to avoid running aground. Navigational charts, buoys and depth finders can assist in this task. If you run aground and the impact does not appear to cause a leak, follow these steps to refloat the boat:

- Do not put the boat in reverse. Instead, stop the engine and lift the out-drive.
- Shift the weight to the area farthest from the point of impact.
- Try to shove off the rock or bottom.

If this fails, contact help.

WATER HAZARDS

It is important that boaters know the waters on which they are boating. Information about local hazards can be obtained by physically viewing their proposed route, consulting local boating sources and utilizing web resources such as the PFBC website.

MOVING WATER: Safety on the water depends on developing respect for the power of water. The power of current is very deceptive and should be taken into account by all boaters. A strainer is an obstruction in the water (such as a tree branch) that allows water to pass through but will hold and trap boats and boaters. Rivers and rapids are rated with the International Scale of River Difficulty (Classes I - VI), which is a guide established by the American Whitewater Affiliation. Parts of rivers could have a different class rating than the overall river's rating. The rating for any river will vary as water flow increases or decreases because of seasonal conditions.

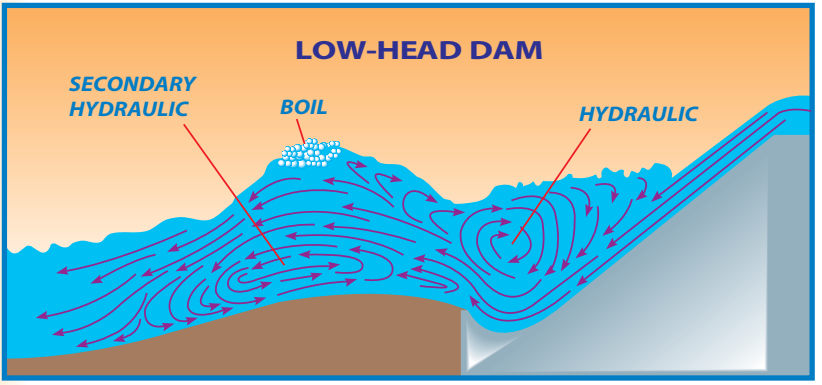
WIND AND WAVES: The definition of wind is "moving air that is described by the strength and the direction of its source." Wind acts on the surface of the water, creating waves. The greater the force and duration of the wind, the bigger the waves will be. Large waves in big water can place small craft in danger. When crossing waves or another boat's wake, head into the waves or wakes at an angle (45 degrees) to reduce pounding.

Large bodies of water such as oceans or Lake Erie provide different challenges and dangers than moving water. Large, relatively shallow lakes such as Lake Erie may develop large waves faster than deeper, similar waters. Small inland boats should not venture out on large waters such as Lake Erie

TIDES AND TIDAL CURRENT: Tides and tidal currents affect where a boater can travel or anchor safely. They also affect how long it takes to get to a destination, the speed needed to arrive at a given time and the heading that must be maintained.

Tides are the vertical rise and fall of ocean water (and waters affected by the ocean) caused by the gravitational pull of the moon and sun. The moment the tide changes direction is known as "slack water." "High tide" is the highest level a tide reaches during ascending waters, and "low tide" is the lowest level a tide reaches during descending waters.

The tidal cycle is the high tide followed approximately 6 hours later by low tide (two highs and two lows per day). The tidal range is the vertical distance between high and low tides. The tidal range varies from one to 11 feet in Pennsylvania on the Delaware River. Boaters should consult tide tables for times of high and low tides.



DAMS

Dams on our rivers aid navigation, produce power and prevent flooding. Keep away from dams! Dangerous currents above the structure can draw boats into water going over or through a dam. Areas below a dam are also extremely hazardous to boats because of strong recirculating currents and turbulent waters.

The most dangerous hazard on a river is a low-head dam. There are hundreds of such dams on rivers and streams throughout Pennsylvania, and dams are true "drowning machines."

Water going over a dam creates a back current or undertow that can pull a boat into the turbulence and capsize it. This hydraulic can trap and hold a person or boat. Many dams are not marked and are almost impossible to see from upstream.

State law requires that many low-head dams in the Commonwealth be marked with signs and, when practical, buoys upstream and downstream from these dangerous structures. The signs detail restrictions for boating, swimming and wading and hazards posed by the dam. Restrictions are enforced by PFBC Waterways Conservation Officers. Dams must be avoided and may be located by checking water trail guides, other maps and PFBC's website.

WEATHER

Weather can cause boaters problems. Having a mishap in cold water or in a remote area can result in hypothermia or other problems. Getting caught in a storm can have very serious consequences. Never underestimate the weather.

Factors that determine weather conditions can be observed and measured. These factors include temperature, barometric pressure and wind. Weather affects the condition of open water and can change suddenly. Check local forecasts the night before going boating and again in the morning. The National Weather Service typically issues a new marine forecast every six hours on designated VHF radio channels.

Signs that dangerous weather may be approaching include:

- Clouds gathering, darkening and increasing in size.
- A sudden temperature drop, a rapid wind shift or change in speed.
- Static on the AM band of the radio may indicate an approaching thunderstorm.
- A drop in the barometric pressure (check a barometer).

IF A STORM IS NEAR...

In a small boat, put on your life jacket and head for the nearest shore. Beach your boat and find shelter on the downwind (leeward) side of the land.

In a large boat, put on your life jacket, start your engine or secure your sails (whichever is applicable). Stow anything that is unnecessary. Secure your dinghy (if you have one) and turn on your running lights. Close up the boat and decide what to do. If land is near, head for it. If not, you may have to ride out the storm. Do so by keeping your bow (front) headed into the waves, wind and/or current. If your motor fails, a sea anchor on a line from the bow will keep the boat into the waves. A bucket will work as a sea anchor in an emergency.

CAPSIZING AND FALLS OVERBOARD

If a small, open boat capsizes, everyone should take a head count, check for injury and stay with the boat. Most small boats have enough flotation to keep from sinking. If possible, the boat should be turned upright and the water bailed out. It can then be paddled to shore. It is also possible to paddle a swamped boat to shore. The golden rule if a boat capsizes is for everyone to stay with the boat.

SWAMPING AND CAPSIZING

If you do capsize or swamp the boat, stay with the boat and make sure everyone has a life jacket. Stay calm. If the boat can be righted, bail out as much water as possible, get in and paddle towards shore. If your boat capsizes or you fall overboard in moving water such as a river, get in the self-rescue position with your feet pointed downstream and near the surface to avoid potential head injury and foot entrapment.

FALLS OVERBOARD

Falls overboard are dangerous situations. People fall overboard even when wind and seas are calm. The shock of falling into the water, especially cold water, can be life-threatening. Wearing a life jacket can be your only source of survival. The best means of survival is to already have a life jacket on and stay with the boat.

PREVENTION

- When getting into or moving around in a small boat, always maintain three points of contact, keeping your weight low and close to the centerline. Don't overload your boat.
- Do not allow passengers to stand in small boats or sit on foredecks, gunwales, engine boxes, seat backs or transoms.
- Watch crew members and frequently check that everyone is aboard.
- Wear deck-gripping shoes (bare feet have poor traction).
- Avoid rough water and weather conditions whenever possible.
- Practice a procedure for recovering someone lost overboard. Toss a life jacket over the side while moving. Test to see how long it takes to stop the boat, turn and retrieve the life jacket.

PROPELLER STRIKES

When people and motorboats share the same water, propeller strikes can and do occur. A typical recreational propeller can rip an average person from head to toe in less than one-tenth of a second. **MOST PROPELLER STRIKES CAN BE PREVENTED!**

Before starting your boat:

- Put on your life jacket!
- Walk to the stern and look in the water to make certain there is no one near your propeller (people near the boat's propeller may not be visible from the helm).
- Attach your engine cut-off switch lanyard to your life jacket. If the lanyard is removed from the switch, the engine will shut off.

Educate passengers:

- Explain the dangers of a motorboat running into a swimmer.
- Show the location and danger of the propellers.
- Establish clear rules for swim platform use, boarding ladders and seating (if possible, passengers should remain seated at all times).
- Talk about safety procedures and emergency action plans.
- Discuss preventing falls overboard:
    - Maintain three points of contact, keep your weight low and close to the centerline (balance issues may occur).
    - Watch crew members and frequently check that everyone is aboard.
    - Wear deck-gripping shoes (bare feet have poor traction).
    - Avoiding rough water and weather conditions whenever possible.
    - Limit alcohol use and discuss physical effects resulting from on water activities.
- Discuss swamping and capsizing prevention.
    - Don't overload your boat.

If capsizing occurs, stay with the boat and make sure everyone has a life jacket. Stay calm. If the boat can be righted, bail out as much water as possible, get in and paddle towards shore. If capsized or overboard in a river, swim downstream, feet first, to avoid potential head injury and entrapment.

Keep a lookout:

- Assign a passenger to keep watch around the propeller area of your boat when people are in the water.
- Never allow passengers to board or exit your boat from the water when the engine is on or idling (your propeller may continue to spin). Turn the engine off.
- Be especially alert when operating in congested areas and never enter swimming zones.
- Take extra precautions near boats that are towing skiers or tubers.
- Never permit passengers to ride on the bow, gunwale, transom, seat backs or other locations where they might fall overboard.
- Children should be watched carefully while onboard.

Consider purchasing propeller safety devices for your boat. A variety of safety devices are available to help prevent propeller strikes.

EMERGENCY ACTION FOR FALLS OVERBOARD AND PROPELLER STRIKES

1. Shout "Man Overboard" immediately.
2. Signal for assistance from passengers, crew or other boaters. Have someone call for assistance over the radio, if available.
3. Stop the boat immediately.
4. Toss a life jacket to the person overboard or any item that will float such as an empty ice cooler. Even if the person is wearing a jacket, it will help improve visibility and provide additional flotation.
5. Assign someone to constantly point at the person in the water. Never let the victim out of sight.
6. Avoid running the person over.
7. Approach against the wind, waves or current.
8. Come close to the victim.
9. Shift into reverse to stop forward motion.
10. Put engine in neutral gear or shut off the engine to stop the propeller from turning. It may be safer to trail a life jacket on a line astern and circle until the person can grasp it.
11. If the boat has a low freeboard, bring the person over the transom. Be alert for hot motors, exhaust pipes and carbon monoxide.
12. High freeboard, use a swim platform or ladder and rig a sling, rope ladder or knotted line.
13. A non-powered vessel must be stabilized before attempting to bring the victim into the boat.

RESCUE AND SURVIVAL

No one should ever count on being rescued. Boaters must be prepared for mishaps on the water. Drowning can occur within a few feet of safety. Even those who cannot swim can save a life if they know some basic rescue techniques.

RESCUE SEQUENCE

1. Self rescue: The rescuer should try to talk the person in trouble into self-rescue and avoid endangering themselves unnecessarily.

2. Reach: A fishing rod, shirt, towel, branch, oar, pole, boat hook or other object can be used to reach out to the victim. If nothing is available and the victim is within arm's reach, the rescuer should lie flat and extend a leg to the victim, pulling them to safety.

3. Throw: If the victim is too far for the reach rescue, the rescuer should throw a rope, life jacket, empty jug, ice chest or gas can, or anything else that will float to the victim. Rescue line bags are excellent items to keep on a boat.

4. Row: The rescuer may boat out to the victim and extend an oar or paddle. The victim should be brought back onboard over the stern (back) of the boat. They should be pulled onboard as carefully as possible. If it isn't possible to bring them onboard, the rescuer should have them hold on to the boat, or hold them until help arrives.

5. **Go:** Swimming rescues are for trained lifesavers only. A swimming rescue should never be tried until all other basic rescue methods have been ruled out. Rescuers who must swim to a victim should wear a life jacket and take a floating object with them to extend to the victim. Rescuers should avoid personal contact with the victim unless they have had lifeguard training. Even then, it is used only as a last resort.

The method of rescue depends on the rescuer's training and skill, the condition and location of the victim, the equipment available and what additional support is available at the scene.

COLD WATER SHOCK

Cold water shock is a major factor in boating fatalities. It happens when someone is suddenly immersed in cold water. The water does not have to be freezing; cold water shock often occurs in water temperatures above 50º F.

The body's first response to cold water shock is usually an involuntary gasp (torso reflex). Hyperventilation (rapid breathing) and breathlessness follow. The person may feel claustrophobic, panicked and confused. Cold water greatly reduces the victim's ability to hold his breath, control breathing and impairs the ability to swim.

HYPOTHERMIA

Hypothermia is the lowering of the body's core temperature. It is a factor in many fatal boating accidents. Cold water robs the body of heat much faster than cold air of the same temperature.

Hypothermia begins with shivering and a loss of feeling in the extremities. Cold, blue skin, decreased mental skills and slurred speech are common symptoms. Unconsciousness can be followed by death. Warm layered clothing, a life jacket and eating high-energy foods will help prevent hypothermia.

FOUR STAGES OF COLD WATER IMMERSION

Cold water shock is a rapid development of a number of shock responses caused by cold water immersion that can result in sudden drowning.

1. **Initial cold shock (first 3-5 minutes).** Sudden immersion in cold water causes the gasp reflex, this can result in water inhalation, hyperventilation, changes in heart rate and rhythm and blood pressure and panic. *All of these reactions may result in death, especially for those with pre-existing heart conditions.*
2. **Short term swim failure (3-30 minutes).** Cold water saps energy and arms and legs become weak. Movement is difficult and slow. Death can occur by drowning, as the victim can no longer stay afloat.
3. **Long term hypothermia (30 minutes +).** The body loses heat to cold water 25 times faster than cold air. The body becomes hypothermic when it loses heat at a rate faster than it can generate heat. Continued exposure leads to unconsciousness and death. At this stage, death may occur without drowning.
4. **Post immersion collapse.** This stage occurs during or after rescue. The body is still hypothermic and death may occur due to complications from inhaling water or lowered body temperature.

FIRST AID FOR HYPOTHERMIA

1. Get the person out of the water or weather as quickly as possible.
2. Replace wet clothing with dry clothing. Wrap the person in blankets to warm him or her slowly.
3. Handle hypothermia victims gently and do not give anything by mouth if they are unconscious. Never give alcohol to a hypothermia victim.
4. Get medical help as soon as possible.

COLD WATER SURVIVAL

- Wear a life jacket. Flotation coats also offer insulation from the cold.
- Wear clothing that still insulates when wet such as wool, fleece or other synthetics.
- If you know you are about to fall into cold water, cover your mouth and nose with your hands, so you don't inhale water.
- Do not remove your clothing.
- Get back into or climb on top of the boat.
- If you can't get out of the water and shore is too far, get into the Heat Escape Lessening Posture (HELP).

ALCOHOL AND BOATING

When on a boat, the effects of alcohol are magnified. Combined with stresses from wind, motion and heat, your ability to think and perform basic tasks needed to safely operate your boat may become impaired. It is illegal to operate a boat while under the influence of alcohol or a controlled substance. Alcohol is prohibited on land and water at all state parks and at most U.S. Army Corps of Engineer projects. Pre-arrest breath tests can be used by officers to determine the probability that a boat operator is under the influence. A blood alcohol concentration of 0.08% or more is considered to be over the legal limit (0.02% blood alcohol concentration for minors). Penalties include loss of boating privileges, significant fines and imprisonment.

COURTESY VESSEL SAFETY CHECKS

A Vessel Safety Check (VSC) is a free courtesy examination of private recreational boats to verify the presence and condition of safety equipment required by state and federal regulations. The vessel examiner is a trained member of the U.S. Power Squadrons or the U.S. Coast Guard Auxiliary. Persons whose boats fail the examination are informed of all shortcomings, so they may correct them and be given a chance for reexamination and the awarding of the decal. Vessels that pass may display the distinctive VSC decal, which entitles the boat owner to discounts at some marine dealers (see website for details). Learn more about Vessel Safety Checks or arrange a free VSC by visiting **www.vesselsafetycheck.org**.

BOATING ACCIDENTS

Each operator of a boat involved in a boating accident must stop, render assistance and offer identification. If the accident results in a death or disappearance, the Fish & Boat Commission must be notified immediately, followed by a written boating accident report within 48 hours. If the accident results in an injury that requires treatment beyond first aid, a written boating accident report must be submitted within 48 hours. If the accident results in damage to the vessel or other property exceeding $2,000, or if there is a complete loss of the vessel, a written boating accident report must be submitted within 10 days. All reports are confidential and for the use of the Commission for boating safety purposes only. Boating Accident Report Forms (PFBC 260) are available on the Commission's website. Reports must be sent to: PA Fish & Boat Commission, Bureau of Law Enforcement, P.O. Box 67000, Harrisburg, PA 17106-7000.

RESOURCE PROTECTION

LAW ENFORCEMENT

Enforcement of boating laws and regulations, along with providing for safety on Pennsylvania waters, is the responsibility of the Pennsylvania Fish & Boat Commission's Waterways Conservation Officers. Some of the waters of the state are also patrolled by other agencies such as the Bureau of State Parks, U.S. Army Corps of Engineers, U.S. Coast Guard and the National Park Service.

Boaters approached by a patrol boat with its blue light flashing must reduce speed to slow no-wake and yield the right of way to the patrol boat. The operator shall stop when requested to do so by a law enforcement officer. Violators can expect enforcement action. Persons who violate boating laws and regulations are subject to arrest, and upon conviction, the boat operator may be found guilty of a summary offense or misdemeanor. The penalty can be a fine and/or jail sentence. The Fish & Boat Commission is also authorized by law to revoke, suspend or deny the boating privileges of persons who are convicted of violating the boating laws and regulations. Persons whose boating privileges are subject to revocation, suspension or denial will be notified in writing and given the opportunity for a hearing.

PFBC LAKES AND ACCESS AREAS

- Any boat, powered or unpowered, using a PFBC lake or access area, must display a current registration or launch permit.
- Inflatable boats less than 7 feet in length or which are not constructed of durable fabric and do not have at least two separate buoyancy chambers are prohibited.
- Overnight mooring is permitted if the boat has the current registration. Boats may be moored from March 1 through November 30 at designated areas. Launch permits do not allow these same privileges.
- The following acts are prohibited on PFBC property:
  - Camping, building or maintaining fires.
  - Picking, cutting or digging flowers, plants, shrubs or trees.
  - Swimming at Commission access areas or in Commission-owned lakes.
  - Leaving trash, garbage or debris, except as placed in containers provided for such purposes and accumulated only during the use of Commission property.
  - Removing or defacing any sign, poster or property.
  - Overnight sleeping in boats, automotive vehicles, tents, campers or the like.
  - Blocking driveways, access roads or launch ramps.
  - Parking in undesignated areas.
- While on Commission property, dogs must be licensed and under control. When the dog is on a lawn area, trail or parking lot, it must be on a leash not to exceed 6 feet in length. The maximum number of dogs that an owner or handler is permitted to have

on Commission property at one time is two. Droppings must be immediately scooped and disposed of off Commission property. The owner or handler is responsible for the conduct of the dog.

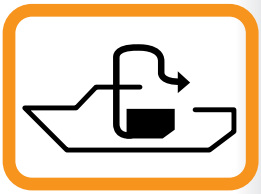
PERMITS

All tournaments, regattas, races, parades and exhibitions must be authorized by the Fish & Boat Commission or Coast Guard. An application must be filed with the Commission at least 60 days prior to such event. Forms are available from the Bureau of Law Enforcement.

Floating structures, including ski ramps, must have a permit from the Commission to be placed on any waters.

Waterway markers, including signs and buoys, must have a permit from the Commission to be placed on any waters.

MARINE SANITATION DEVICES (MSD)



The Water Quality Act of 1987 requires the installation of an MSD on all vessels with installed toilet systems operating in the navigational waters of the United States. Marine toilets are a source of pollution if not designed correctly.

They must be of a sealed construction, so no waste can be discharged from the toilet directly or indirectly into the water. All MSDs must be U.S. Coast Guard approved. Portable toilets are not considered installed toilets. **Direct overboard discharge of portable toilet waste is a violation of state water regulations.**

Discharge of sewage, treated or untreated, is prohibited in all fresh water impoundments lying entirely within the boundaries of the state. When boating on these waters, if your watercraft is equipped with an installed toilet system, it must be removed, sealed or drained into a holding tank, which can be carried or pumped ashore for disposal at an approved sewage treatment system. Pre-plan your trip: find pump-out locations on the PFBC website (**www.fishandboat.com**) or look for the waterway sign above that indicates their availability.

LITTERING AND POLLUTION

Plastic bags, discarded fishing line and other garbage kill fish, waterfowl and wildlife. Before throwing away six-pack rings, snip each circle with scissors. Once the rings are cut, no animal can get caught in the rings. In Pennsylvania, it is unlawful for any person to litter. If something blows out of your boat, go back and remove the object(s) from the water. Cigarette butts tossed in Pennsylvania waters is considered littering. Properly dispose of all litter and report water pollution.

If you see any source or indication of pollution, such as dead fish, call the PFBC's Pollution Hotline at 1-855-FISH-KIL, or the Department of Environmental Protection at 1-800-541-2050, or the appropriate PFBC regional office. During after-hours, weekends and holidays, call the Department of Environmental Protection at 717-787-4343.

WASTE, OIL AND TRASH DISPOSAL IN PENNSYLVANIA AND FEDERAL WATERS

It is illegal to discharge sewage or other human waste, oil or trash into any state or federally controlled waters. Sewage carries disease and other pollutants harmful to people, aquatic plants and animals. Trash thrown into the water can injure swimmers and wildlife alike. It can also plug engine cooling water intakes.

The Refuse Act prohibits throwing, discharging or depositing any refuse matter of any kind (including trash, garbage, oil and other liquid pollutants) into the waters of the United States.

Discharge of oil and other hazardous substances

- Regulations issued under the Federal Water Pollution Control Act require all vessels with propulsion machinery to be able to retain oil mixtures on board.
- Discharge of oil or hazardous substances is prohibited. The penalty for illegal discharge may be a fine of up to $10,000.
- Dumping oil into the bilge of the vessel without means for proper disposal is also prohibited. Fuel spills can be removed using absorbent bilge pads.
- Oil waste must be disposed at an approved reception facility. On recreational vessels, a bucket or bailer is adequate for temporary storage prior to disposing of the oil waste at an approved facility.
- Notify the Coast Guard immediately if your vessel discharges oil or a hazardous substance into the water. Call toll-free 1-800-424-8802. Report the discharge's location, color, source, substances, size and time observed. You must also call the Pennsylvania Department of Environmental Protection and report the discharge.
- If boating on federally controlled waters and your vessel is 26 feet or longer, you must display a 5- x 8-inch placard made of durable material, fixed in a conspicuous place in the machinery spaces or at the bilge pump control station, stating the following:

DISCHARGE OF OIL PROHIBITED

The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste upon or into any navigable waters of the U.S. The prohibition includes any discharge, which causes a film or discoloration of the surface of the water or causes a sludge or emulsion beneath the surface of the water. Violator's are subject to substantial civil and/or criminal sanctions including fines and imprisonment.

AQUATIC INVASIVE SPECIES

STOP AQUATIC HITCHHIKERS!

Help reduce the spread of Aquatic Invasive Species

Aquatic Invasive Species (AIS) are plants and animals that have been introduced into new ecosystems and have environmental, recreational, economic or health impacts. These invaders may damage equipment and compete with native species. Anglers and boaters may unknowingly introduce AIS into new waters.

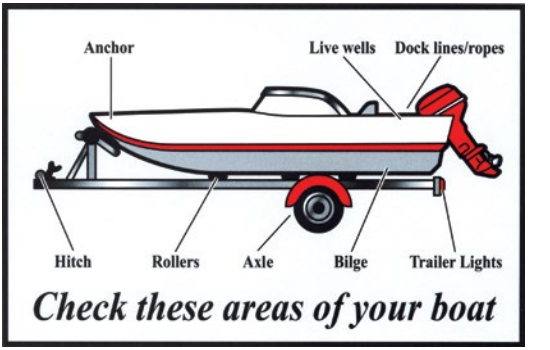


photo- Bill Tate, USGS

photo-USGS NAS website

STOP AQUATIC HITCHHIKERS BY FOLLOWING THESE SIMPLE STEPS.

Check your equipment before leaving any body of water. Inspect every inch of your boat, trailer and fishing gear. Remove and leave behind plants, mud and aquatic life.

Check your boat:
- Anchor and line
- Motor lower unit
- Hull
- Trailer hitch, rollers, lights and axle
- Life jackets
- Swimming floats, water skis, wakeboards or tubes.

Check your fishing gear:
- Shoes or boots
- Clothing
- Fishing vests
- Fishing rod, reel and line
- Hooks and lures
- Tackle boxes

PA SALTWATER REGISTRY PROGRAM FOR DELAWARE RIVER and ESTUARY ANGLERS
VISIT: www.pa-sarp.pa.gov

Remove:
- Visible plants
- Fish or other aquatic animals
- Mud and dirt

Do not transport any potential hitchhiker, even back to your home. Remove and leave them at the site you visited.

Drain water from all equipment before leaving the area you are visiting. Some species may live for months in water that has not been removed.

Drain:
- Motors
- Jet drives
- Live wells
- Compartments
- Boat hulls
- Bilge
- Shoes, boots and waders
- Bait buckets
- Life jackets
- Swimming floats, water skis, wakeboards or tubes.

Quagga Mussel

photo- Bill Tate, USGS

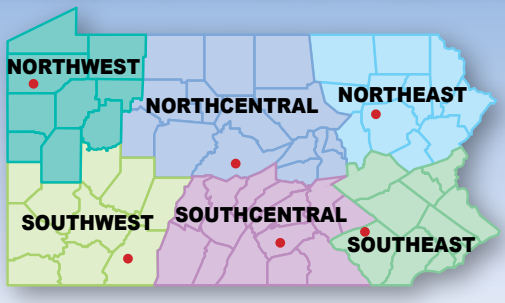
Follow the cleaning instructions below after the water has been removed.

Before going to another body of water, **clean anything that came in contact with the water.**
- Use hot (140° F) water to clean your equipment.
- Spray equipment with a high-pressure washer. If hot water is not available, a commercial hot water car wash also makes an ideal location to wash your boat, motor and trailer.

Or, **dry everything before entering new waters. Allow equipment to dry to the touch, and then allow it to dry another 48 hours.** Thick and dense material like life jackets will hold moisture longer, take longer to dry and be more difficult to clean.

STOP AQUATIC HITCHHIKERS. Do not transport any plants, fish or other aquatic life from one body of water to another. Do not release unused bait into the waters you are fishing. Dump unused bait in a trash can. For more information: **www.fishandboat.com/ais-reporting.htm.**

PFBC LAW ENFORCEMENT REGION OFFICES



Boaters who have a need to communicate with a Fish & Boat Commission Waterways Conservation Officer should contact the appropriate region office. Hours are 8:00 a.m. to 4:00 p.m., Monday through Friday.

NORTHWEST REGION
11528 State Highway 98 • Meadville, PA 16335
Ph. 814-337-0444 FAX 814-337-0579
Counties: Butler, Clarion, Crawford, Erie, Forest, Lawrence, Mercer, Venango, Warren.

SOUTHWEST REGION
236 Lake Road • Somerset, PA 15501
Ph. 814-445-8974 FAX 814-445-3497
Counties: Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland.

NORTHCENTRAL REGION
595 East Rolling Ridge Drive • Bellefonte, PA 16823
Ph. 814-359-5250 FAX 814-359-5254
Counties: Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lycoming, McKean, Montour, Northumberland, Potter, Snyder, Tioga, Union.

SOUTHCENTRAL REGION
1704 Pine Road • Newville, PA 17241
Ph. 717-486-7087 FAX 717-486-8227
Counties: Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lebanon, Mifflin, Perry, York.

NORTHEAST REGION
5566 Main Road • Sweet Valley, PA 18656
Ph. 570-477-5717 FAX 570-477-3221
Counties: Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Wayne, Wyoming.

SOUTHEAST REGION
P.O. Box 9 • Elm, PA 17521
Ph. 717-626-0228 FAX 717-626-0486
Counties: Berks, Bucks, Chester, Delaware, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, Schuylkill.

FOR MORE INFORMATION

U.S. COAST GUARD AUXILIARY: www.cgaux.org/boatinged
U.S. POWER SQUADRONS: www.americasboatingcourse.com
AMERICAN SAILING ASSOCIATION: www.asa.com
AMERICAN RED CROSS: www.redcross.org
AMERICAN CANOE ASSOCIATION: www.americancanoe.org

The Outdoor Shop
Purchase fishing licenses, trout stamps, subscriptions, boat registration renewals, launch permits and more– All Online!
www.pa.wildlifelicense.com

INTERACTIVE MAPS ONLINE!
The Fish & Boat Commission maintains up-to-date maps at
www.fishandboat.com

YOUR BOATING DOLLARS AT WORK

Produced under a grant from the Sport Fish Restoration and Boating Trust Fund, administered by the U.S. Coast Guard.

NASBLA
Course approved by the National Association of State Boating Law Administrators and recognized by the U.S. Coast Guard

04/2019