

Aids to Navigation

Unlike roads and highways, our waterways do not have road signs that tell us our location, the route or distance to a destination, hazards along the way, speed limits or lane markers. Instead, waterways have aids to navigation. These waterway markers are most often buoys.

The U. S. Aids to Navigation System was adopted by the Pennsylvania Fish & Boat Commission for use on Commonwealth waters not marked by the U. S. Coast Guard. This aids-to-navigation system consists of "information and regulatory marks" and the "lateral system." The information and regulatory marks gives the small-boat operator adequate guidance to safe boating areas by marking the presence of either natural or artificial obstructions or hazards. It is also used to mark restricted or controlled areas. These buoys have orange geometric shapes against a white background. The meanings associated with the orange shapes are:

- A vertical open-faced diamond signifies danger.
- A vertical diamond shape with a cross centered within indicates that boats are excluded from the marked area.
- A circular shape indicates that certain operating restrictions are in effect in the marked area.
- A square or rectangular shape contains directions or instructions.

The lateral system is uniformly used in the United States to define the port (left) and starboard (right) sides of a route or channel. Wherever you travel in the country, the system is the same. You don't need to learn a new system for new waters. These buoys are red and green. The expression "red, right, returning" has long been used by mariners to remember to pass red buoys on the starboard (right) side of the boat when proceeding upstream. Conversely, green buoys are kept to the port (left) side of the boat.

In addition to the information and regulatory marks and the lateral system, there are three additional distinctive buoys used in the state system:

- **Safe Water Marker Buoy.** This buoy is commonly referred to as a "mid-channel" buoy. Mid-channel buoys indicate navigable water all around the buoy. Mid-channel buoys are colored with red and white vertical stripes.
- **Special Marker Buoy.** Special marker buoys are not primarily intended to assist in navigation, but to indicate special areas. They may be used, for example, to mark anchorages, cable or pipeline areas, and traffic separation schemes. Special marker buoys are colored solid yellow.
- **Mooring Buoy.** This buoy is white with a blue



by Fred Menke

The artwork pictured above is a decal 5.5 inches by 4.5 inches that you can place on your boat to help you identify buoys. Single copies are available free by request. Contact: Educational Media Services, PA Fish & Boat Commission, P.O. Box 67000, Harrisburg, PA 17106-7000.

horizontal band. This distinctive color scheme is used to facilitate identification and to avoid confusion with aids to navigation.

● **Signs provide another way the state marks controlled, hazard and restricted areas on Commonwealth waters.** These signs can be found on bridge abutments, at access areas and even in the water. They have the same importance and meaning as buoys. They are still aids to navigation.

The lateral system and the information and regulatory marks have been developed for uniformity in marking channels and hazards to navigation. The system is designed to satisfy the needs of all types of small boats. Boaters should not rely completely on the position or operation of floating aids to navigation. Buoys can be carried away, shifted, capsized, sunk and vandalized. Know the waters on which you are boating.

Boaters should immediately notify the nearest Pennsylvania Fish & Boat Commission regional law enforcement office of any defects, missing or destroyed aids to navigation. By doing so the safety of boaters will be enhanced and will allow the Fish & Boat Commission to keep these buoys operating properly and on their charted positions at all times.

Persons, including clubs, individuals, state agencies, municipalities and other groups, wishing to install floating structures (buoys, swim floats, swim areas, ski jumps, slalom courses, etc.) on Commonwealth waters must apply for permission from the Pennsylvania Fish & Boat Commission on Form PFBC-227 at least 30 days before the intended date of installation. ☐