

## Navigating in Commercial Harbors

When navigating small craft in commercial harbors like Norfolk or Baltimore, remember:

1. Be particularly cautious around commercial cargo piers. Ships, tugs or barges may be maneuvering in the vicinity and sudden propeller wash or wakes generated by these vessels can be extremely dangerous to small craft.
2. Stay out of the main ship channel if your draft permits.
3. Designate someone aboard your boat to keep watch for ship movements.
4. Don't pass close to ships leaving piers — you don't know what's on the other side of them, and their turbulence can cause you problems.
5. Don't forget harbor speed limits — you're responsible for your wake.

## Some References

Basic Boating. Maryland Department of Natural Resources, Tawes Building, Annapolis, MD 21401.

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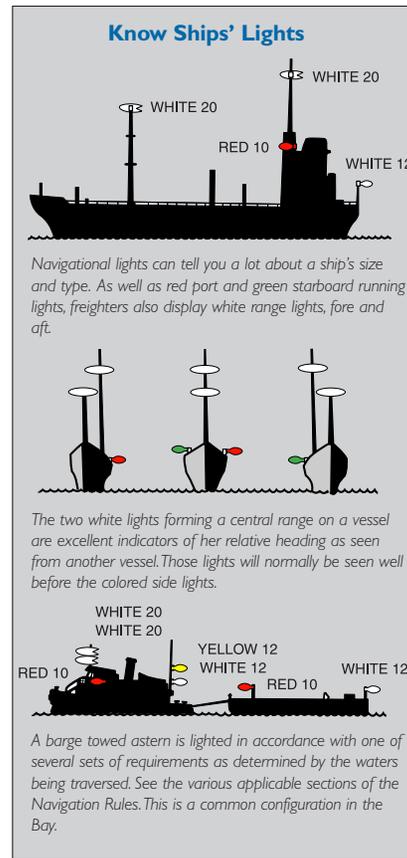
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## Area of Commercial Ship Traffic in Maryland and Virginia



Following the drowned river valley of the ancient Susquehanna, the Chesapeake's main ship channel brings large vessels to ports like Baltimore and Norfolk, but leaves them little room to maneuver. When crossing the ship channel, small boats should take great care, especially at night or in poor visibility.



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# KEEP CLEAR

## BIG SHIPS in the Chesapeake Bay



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## BIG SHIPS in the Chesapeake Bay

A major shipping channel runs the length of the Chesapeake Bay, and through it pass millions of tons of cargo borne by ocean-going ships. An awareness of the constraints under which these ships operate provides the best protection against dangerous confrontations. This brochure focuses on some highlights of encounters with big ships, though it serves as no substitute for good seamanship and a firm understanding of navigational rules. Several sources, listed as references here, answer questions about appropriate signals and established rights of way in greater detail. Get to know these rules and keep them aboard.

### Some Facts You Should Know

1. The number of recreational boats in the Bay has increased over time, multiplying the chances for collision with large ships. Unlike many small boats, big ships must keep to an often narrow channel, and Rule 9 of the Navigation Rules specifically states that small craft "shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway."

2. In the Chesapeake, all foreign-flag commercial ships you meet will have a Bay pilot aboard. The pilot will be monitoring VHF radio channel 16, and channel 13 for vessel-to-vessel messages.

3. In general, most large ships travel at a "maneuvering speed" of about 12 to 15 knots while in the Bay, but in open waters they may be going faster.

4. Ships often travel faster than you might expect given their size, and they must maintain adequate speed to maintain steerage and maneuverability. In low visibility, ships navigate by radar, and small craft **may** or **may not** be detected.

5. Lightly loaded vessels must keep a fair speed to stay under control when in channels. The same is true of loaded vessels that are unevenly trimmed. If they slow down too much or stop, they risk being driven aground by wind or tide.

6. It often takes less than 10 minutes for a fast ship to reach you once you spot it in clear weather, and in hazy

weather it takes a lot less. At 10 knots, a ship goes 1 nautical mile in 6 minutes; at 15 knots, from a mile away, it can be on you in 4 minutes.

7. Large, difficult-to-maneuver ships cannot successfully avoid smaller craft in narrow channels. It is up to you to **stay clear**.

8. Be aware that in the Bay the "channel" is not always clearly defined, especially in long open stretches.

9. A ship that is slowing down does not steer very well; the rudder needs a flow of water against its surface to remain responsive.

10. When the ship's engines are put "full astern," **there is not much more the pilot can do**, and he may lose steerage. In many cases the reversing action will swing the ship's bow to starboard, but precisely how a ship will react when its engines go into reverse will vary. Therefore, stay well away. Remember, depending on draft and load it may take a ship a mile or more to stop, **after** its engines are reversed.

11. Other, smaller vessels that operate throughout the Bay can also cause problems. Watch out for tugs towing barges, especially at night, when poorly lit barges may remain invisible. Remember that a partially submerged towing cable can cut a boat in two. Commercial fishing vessels, though more maneuverable, may pose a problem when hauling large nets, which may be deceptively long.

### What Can You Do?

1. **Keep a constant lookout**, astern as well as forward, and be aware of your relation to all boats, buoys or other features. Pilots call this "situation awareness."

2. **Stay out of the way.** Avoid sailing or motoring in ship channels, especially if visibility is poor because of fog, rain or darkness. Big ships must stay in the deep channels, and most smaller vessels don't need to. No matter how fast your boat, it is best to pass well astern of a ship or barge. Remember, no boat has ever been sunk by passing behind a moving ship.

3. **Do not underestimate the speed of a large vessel.** If your boat is slow, a sailboat for example, you might not be able to take effective evasive action if you find yourself on a collision course with a large ship in visibility of a quarter-mile or less — the speed differential is simply too great.

4. **Be visible.** At night, make sure that your navigation lights are bright and are not obscured by sails, flags or dinghies in davits. If you see the running lights of a vessel and you don't think you have been seen, begin to get out

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***In the time it takes to read to this point, a ship moving at 15 knots would have traveled one nautical mile.***

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of the way, using flashlights on sails, a spot-light, flash bulbs, or a white flare to indicate your position (a strobe light should be reserved as a distress signal only). Carry a radar reflector as high on the boat as you can.

5. **Keep a watch at night.** Even on a clear night you will have difficulty seeing a big ship approach. You might see it first as a black shadow against a background of shore lights, or as a shadow moving rapidly across still water — at that point you are not far apart. Remember that your lights will not be easily spotted from the ship.

6. **Watch the ship's lights.** Pay attention to the sidelights as well as to masthead and range lights. On a large ship the white range lights, with the aft light higher than the forward light, will help you determine the ship's direction. If you see both red and green sidelights, you're dead ahead — MOVE OUT FAST. Also learn to recognize the mast lights of a tug towing one or more barges and of a commercial fishing vessel towing a net.

7. **Know whistle signals**, used only when vessels are in sight of one another. The pilot of a ship will frequently **not** use the "port" or "starboard" whistle signals when passing small boats because he is afraid the signals will not be understood and might lead to erratic changes in course. If you hear five or more short blasts on the whistle, it is the "danger" signal. Check and see if it is for you — and if it is, make way fast.

8. **Use your radio.** If you have a VHF radio aboard, remember that while channel 16 is the calling and distress frequency, **channel 13** is the working frequency used to arrange safe meeting and passing between ships and other watercraft. If you do hail a ship, identify yourself relative to a numbered buoy or some other reference point. Do not use these channels for chatter; and keep radio use to a responsible minimum. The Coast Guard encourages the use of channel 9 for nonemergency hailing purposes among small craft.

9. **Choose safe anchorages.** Never anchor or hove to in a shipping channel, and never tie up to a channel marker or buoy. Coast Guard buoys tell ships "here is where you must pass," and it is illegal, as well as unsafe, to tie up to them.

10. **Use binoculars.** At night especially they can help you determine ships' lights and direction with greater accuracy. Get into the habit of sweeping the horizon 360 degrees at least every fifteen minutes, more frequently in poor conditions.

11. **Carry a radar reflector.** Though no guarantee that a ship will spot you, a radar reflector at least improves your chances.

12. **Remember that ships displace** many thousands of tons of water, creating surges and wakes, which may be amplified in shallow water in proximity to land.

13. **Note that around some restricted areas** — such as military installations, the Calvert Cliffs nuclear plant or the Cove Point LNG facility — there are safety zones through which recreational boats are forbidden to pass.

### Collision Avoidance Checklist

- Avoid ship channels where possible, or cross them quickly.
- Be alert. Watch for ship traffic.
- Think before you drink! Maryland's Department of Natural Resources enforcement division has no problem with those who drink, only with those who drink and insist on taking the wheel. Those who handle boats prudently have nothing to fear.
- Be seen, especially at night.
- Know whistle signals — five or more mean danger.
- Use radio channel 13 for bridge-to-bridge communication.
- Use up-to-date navigation charts.
- Keep in mind that few survive collisions with ships.
- When in doubt, keep clear.